Thinking Monetization into the Loop

On the Production Context of Free-to-play Games

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Abstract

This thesis looks into the production of free-to-play mobile games. Free-to-play games are games that can initially be played for free, but which will try to generate revenue through microtransactions or in-game purchases. The various ways in which the game design is connected to the monetization techniques are highly controversial both within and outside the games industry, as the microtransactions are allegedly designed to lure players into unforeseen spending. Moreover, microtransactions that provide an advantage in the game can jeopardize the fairness and level playing field of such games, because real money interferes with the game experience. In addition, the revenue model has been heavily criticized because typically only a small minority of players spend any money at all, rendering it an unbalanced type of monetization, where some players are exploited to make the model viable for all. Nevertheless, free-to-play has quickly become the most lucrative revenue model in the games sector, especially for mobile games.

Free-to-play games have been researched within game studies mostly through textual analyses, reception studies, or discourse analyses. This thesis approaches the phenomenon from a game production studies perspective, studying how, by whom, and under which circumstances these games come into being. Specifically, the study zooms in on the lived experiences and day-to-day practices of free-to-play game developers, in order to understand the complex interplay between monetary and creative considerations in this type of production. The findings are primarily based on semi-structured interviews with free-to-play developers covering the various disciplines within this sub-sector, complemented by a content analysis of job postings that include monetization-related tasks. The issue is addressed with the help of three distinct lenses.

The first lens is a design research approach concerned with game development processes, including the typical phases and activities in such processes. The iterative, cyclic processes entail early playtesting of game concepts (which ideally include first monetization mechanisms), thorough market research, as well as the extensive collection and analysis of player metrics, which are then fed back into the design and the balancing. The challenge to meaningfully integrate monetization mechanisms into game design permeates all these activities.

The second lens is concerned with the roles and professional profiles in free-to-play game development, assuming that roles are not fixed like positions, but are enacted in a fluid way. Although traditionally outside of game development's *core triad* of game design, programming, and game art, monetization is an essential, new type of expertise, encompassing market knowledge, economy or systems design, as well as data analysis skills. Ideally, the responsibilities of monetization design and game design are taken care of by one person to ensure said integration, but sometimes the competence needs to be brought in by an external expert.

Thirdly, using the concept of the *moral economy of cultural work*, it is demonstrated that free-to-play game developers leverage several principles and reasonings to differentiate between acceptable and objectionable monetization mechanisms. These principles guide their work and creative decisions. Moreover, shared narratives, for instance, about the motivations of the game's top spenders, equip developers against accusations of creating unethical games.

All in all, this thesis contributes to the field of game production studies by shedding light on the dynamics and complex relationships between monetary and creative considerations in free-to-play game development. Moreover, being on the intersection of, on the one hand, creating both games as cultural products and a specific expression of play, and on the other hand, data-generating instances of software-as-a-service, free-to-play game production oscillates between these worlds.

Deutsches Abstract

Die vorliegende Dissertation beschäftigt sich mit der Produktion von Free-to-play-Spielen. Free-to-play-Spiele können zunächst kostenfrei erworben und gespielt werden, sie versuchen jedoch im Spielverlauf durch Mikrotransaktionen und In-Game-Käufe Umsatz zu generieren. Die vielfältigen Verknüpfungen zwischen Game Design und Monetarisierungsstrategien sind sowohl innerhalb als auch außerhalb der Games-Industrie stark umstritten. An den Mikrotransaktionen wird kritisiert, dass sie die Fairness und die Einheitlichkeit der Wettbewerbsbedingungen verzerren, indem der Einsatz echten Geldes in den Spielverlauf eingreift. Wenngleich nur eine kleine Minderheit der Spieler:innen Geld ausgibt, sind Free-to-play-Spiele schnell zum lukrativsten Ertragsmodell in der Games-Branche geworden, insbesondere für mobile Endgeräte.

Free-to-play-Spiele wurden innerhalb der *Games Studies* vor allem durch Textanalysen, Rezeptionsstudien und Diskursanalysen untersucht. Diese Arbeit nähert sich dem Phänomen aus der Perspektive der *Game Production Studies* und analysiert, wie, von wem und unter welchen Umständen diese Spiele entstehen. Insbesondere konzentriert sich diese Studie auf die gelebten Erfahrungen und alltäglichen Praktiken von Free-to-play-Spieleentwickler:innen, um das komplexe Zusammenspiel zwischen monetären und kreativen Erwägungen zu verstehen. Die Ergebnisse basieren in erster Linie auf halbstrukturierten Interviews mit Free-to-play-Entwickler:innen aus den verschiedenen Disziplinen dieses Teilsektors, ergänzt durch eine Inhaltsanalyse von Stellenausschreibungen, die monetarisierungs-bezogene Aufgaben beinhalten.

Die Arbeit analysiert das Thema aus drei verschiedenen Perspektiven. Die erste Perspektive ist ein *Design-Research*-Ansatz, der sich mit den Spieleentwicklungsprozessen, einschließlich der entsprechenden typischen Phasen und Tätigkeiten, befasst. Diese iterativen, zyklischen Prozesse beinhalten frühe Playtests von Spielkonzepten (welche idealerweise bereits erste Montarisierungsmechanismen enthalten), gründliche Marktforschung sowie die umfassende Sammlung und Analyse von Spieler:innendaten, die dann wieder in das Design und Balancing einfließen. Die Ergebnisse zeigen, dass sich die Herausforderung, die Monetarisierungsmechanismen sinnvoll in das Spieldesign zu integrieren, durch all diese Tätigkeiten zieht.

Die zweite Perspektive beschäftigt sich mit den Rollen und beruflichen Profilen in der Free-to-play-Spieleentwicklung, unter der Annahme, dass diese Rollen nicht festgelegt sind, sondern auf eine fluide Weise ausgeübt werden. Obwohl die Monetarisierung traditionell nicht zu dem aus Spieldesign, Programmierung und Game Art bestehenden Kernbereich der Spieleentwicklung gehört, stellt sie eine wesentliche, neue Art der Expertise dar, die Marktkenntnisse und Fähigkeiten im Economy- bzw. Systemdesign sowie der Datenanalyse umfasst. Im Idealfall betreut die gleiche Person das Monetarisierungs- und Spieledesign, um eine möglichst reibungslose Verzahnung zu gewährleisten, doch in manchen Fällen muss das Know-How von externen Expert:innen eingeholt werden.

Drittens wird unter Rückgriff auf das Konzept der *moral economy of cultural work* gezeigt, dass Free-to-play-Spieleentwickler:innen verschiedene Prinzipien und Begründungen anwenden, um zwischen akzeptablen und verwerflichen Monetarisierungsmechanismen zu unterscheiden. Diese Prinzipien leiten ihre Arbeit und kreativen Entscheidungen. Geteilte Narrative zu beispielsweise den Motivationen von Spieler:innen mit besonders hohen monetären Ausgaben, rüsten die Entwickler:innen gegen die Anschuldigung, unethische Spiele zu erschaffen.

Zusammengefasst leistet diese Arbeit einen Beitrag zu den *Game Production Studies*, indem sie die Dynamiken und komplexen Zusammenhänge zwischen monetären und kreativen Überlegungen in der Free-to-play-Spieleentwicklung offenlegt. Da Free-to-play-Spiele einerseits als kulturelle Produkte und eine spezifische Form des Spielens, andererseits als daten- und umsatzgenerierende *Software-as-a-Service* kreiert werden, oszilliert die Free-to-play-Spieleproduktion zwischen diesen Welten.

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1
Introduction

> "The video games industry earns more and more money, partly thanks to in-game purchases. Battle passes, cosmetics, loot boxes, items, additional lives, time-skippers, diamonds, which are used to buy gold with, which are used to buy splinters with... in short*: microtransactions*. These are, unfortunately, often quite disgusting and manipulative. [...] Step by step, large parts of the games industry move into an unhealthy, greedy, ruthless, and exploitative direction. [This is] about an industry, which is regulated far too little, and doesn't shy away from even the nastiest psychological tricks, and in which even the largest developers sell their souls to highly questionable revenue models; about games that are no less than continuous advertisements, in which real fun and games as art have the lowest possible priority, and which very strategically and consciously exploit people who are most vulnerable to it. [...]
>
> Today, many games are initially free for their players [...] and development costs need to be returned by microtransactions. [...] Often, the question is not anymore: 'We have this idea, this game, how can we make money with it?' but rather 'How should my game be designed, as to make as much money as possible with it?'" (Simplicissimus, 2021)[1]

As this introduction to a YouTube video titled "How video games exploit you" from October 2021 shows, digital games whose revenue model is based on microtransactions or in-game purchases are highly controversial. The games criticized in this video, which popularly go by the term *free-to-play* or *freemium* games, allegedly manipulate and deceive their players, as they would lure them into spending money for virtual goods that are only useful in the game's fictional world. Furthermore, the free-to-play monetization model would devalue games as an 'art form' that is supposed to offer an experience of playing that is detached from everyday live—and as such should not be 'contaminated' by real-world money. The level playing field that ideally provides equal chances for all players is, moreover, thrown into disbalance by the possibility to pay your way up in the ranks—an option not all players can, or are willing to, afford.

Dutch historian Johan Huizinga—who explored the role of play in culture in the first half of the previous century—would have most likely also raised questions regarding free-to-play games. It is, for instance, highly arguable whether free-to-play games meet the

[1] The video is originally in German and titled *"*Wie Videospiele dich ausbeuten*"*; translation of the voice over mine. It is part of a YouTube series called "Exposed" made by Simplicissimus, a product of Funk, the online content network of German public broadcast providers ARD and ZDF.

requirement of play of “standing quite consciously outside ‘ordinary’ life” in its “own proper boundaries of time and space”, and whether they can “absorb the player intensely and utterly” (Huizinga, 1980, p. 13) when the play is interrupted to carry out a microtransaction.

Yet, as much as free-to-play games might not match the image of ‘ideal games’ (Alha, 2020; Paul, 2020), this is not reflected in their commercial success. Especially in the mobile realm, freemium games generate the lion’s share of revenues, as compared to games that can be acquired by a one-time purchase (Statista, 2021a; 2021b; 2021c). And even though the free-to-play revenue model has been heavily criticized both inside and outside the games industry, freemium games’ popularity continues to grow. The large numbers of players in some games with this revenue model—which is generally based on a small majority of players spending any money at all—enable a handful of successful game companies to make significant profits.

In many critical accounts such as the video cited above, assumptions are made about the intentions of free-to-play game developers, who would, for instance, apply dark design patterns and exploitative psychological tricks to catch so-called *whales*—a term designating the small segment of players spending most money. Yet, instead of turning to game developers, conclusions are mostly based on analyses of the games or on player responses to free-to-play games. In academic accounts, this often manifests in the form of discourse analyses and reception studies. In other words, the people who create free-to-play games are rarely involved, rendering the conclusions drawn in these studies rather indirect deductions. Therefore, in order to dissect free-to-play games as well as the intentions behind them, one should also take a look ‘backstage’—however inaccessible the world of game development might seem. In this thesis, I will do exactly this: Looking behind the scenes of free-to-play game production in order to unpack the complex interplay between commercial and creative considerations in this type of development.

Reading game developer blogs and attending industry events in 2015 first gave me a hint of the diverse discussions taking place within the developers’ community concerning the free-to-play revenue model: Next to the pragmatic exchange of tips and tricks about how to implement certain monetization mechanisms most effectively, the ethics of the free-to-play model were debated in more emotionally-charged discussions. In this study, I explore these issues more systematically with the help of semi-structured interviews with free-to-play game developers as well as interviews with developers who work outside the free-to-play realm (as

to juxtapose their views with those of freemium developers), complemented with an analysis of job postings by game companies that include monetization-related duties. The aim of this thesis is not to find justifications for contested monetization techniques or refute criticism toward free-to-play games. Rather, it is to reveal how traditional as well as novel game design practices, genre conventions, role profiles, commercial strategies, (assumed) player opinions, and community norms all contribute to the decisions made in free-to-play development processes, because they all factor in at finding a balance between commercial and creative interests. In a broader sense, this thesis is an account for more research into the hitherto understudied production aspect of games. Free-to-play games, due to their disruptive effects on the entire industry (e.g., Alha, 2020), serve as a particularly suitable object of study in this respect. As such, my research is situated in the emerging and multifaceted field of *game production studies*, which in turn borrows concepts from the adjacent field of *media industry studies* and its subset *production studies*.

Throughout this thesis, I will turn to various theoretical concepts from these academic areas to show how the free-to-play monetization model permeates all phases of the development process, elicits new roles and responsibilities for game professionals working in this sub-sector, and forces professionals to think about the morals inscribed in the various ways to integrate monetization into game design. Moreover, being on the intersection of creating both games as cultural products—and a specific expression of play—and data-generating instances of software-as-a-service, free-to-play game production oscillates between these worlds.

Outline of the thesis

Thus, in brief, the main aim of this thesis will be to explore how the free-to-play monetization model affects the ways games are created. In order to address this question, the thesis will be structured as follows: The next chapter, on “The free-to-play monetization model” will start by locating the research interest, which is the development of free-to-play mobile games, in the large and multifaceted games industry. I will elaborate on the history and rise of the free-to-play revenue model and unpack the controversies it triggered in the USA and Europe, with a focus on Germany. I will show that the type of free-to-play games that most profoundly integrate monetization techniques and game design are the ones most criticized in discourses inside and outside the games industry.

Chapter 3, then, addresses how this study can be embedded in existing academic traditions and theories. The main field of relevance is *game production studies*, which is, roughly, concerned with 'making games'—a presently underrepresented aspect in game studies. Game production studies can be considered part of media industry studies and, in some cases, orients toward the specific approach within this field named production studies. Following the latter, I will zoom in on developers' practices, routines, and specific production sites, that is, the micro-context in which free-to-play games are created. At the same time, I will connect these findings to the larger structures surrounding them. The underlying concept here is that game developers are assumed to have *circumscribed agency* (Havens & Lotz, 2017), meaning the macro-forces define the boundaries within which game creators enjoy certain leeway. I will furthermore elaborate on the different *production logics* in the games industry, as this concept constitutes a suitable way to describe these macro-structures—with the *platform production logic* as the one that encompasses free-to-play games. This production logic is, among other things, characterized by the mobile app stores as central distribution platforms, *data-driven* development and free-to-play games being *games-as-a-service*. Moreover, in order to unpack the typical activities, routines, and design phases of free-to-play development, I will turn to another body of literature, which is *(game) design research*. This strand of research has characterized game development as an iterative process, where feedback-based adjustments are key.

After having specified my object of study and embedded the research interest academically, I will present the core of this thesis in chapters 4, 5, and 6. These chapters can be read as stand-alone texts, meaning they include their own literature review and theoretical concepts that are specific to the particular lens applied, as well as an elaboration on the methodology used to collect the empirical material the chapter is based on.[2]

Chapter 4, titled "Making the mechanics monetizable: The development process of free-to-play games" examines free-to-play games' iterative development processes. These processes typically entail early playtesting of game concepts (which ideally include first monetization mechanisms), thorough market research, as well as the extensive collection and analysis of player metrics, which then feed back into the design and the balancing. Despite all these risk-reducing strategies, a game might still be canceled after trying it out in *soft launch*, when the analysis of player data and mathematical constructs such as *conversion rate* do not

[2] Hence, there is no general method chapter in the overall outline.

add up. In short, the chapter highlights the permeation of the revenue model in all phases of development.

Chapter 5, "The (changing) profession of free-to-play game developers: The role and expertise of monetization" then attends to the people working in free-to-play game development, by focusing on monetization-related duties. Instead of assuming roles in creative work as fixed positions, the chapter engages with roles as being enacted in a fluid way. As I will demonstrate, although traditionally outside of game development's *core triad*—that is, game design, programming, and game art—monetization is an essential, new type of expertise needed in free-to-play game production, encompassing market knowledge, economy or systems design, as well as data analysis skills. While sometimes external experts are brought in to design the connection between gameplay and microtransactions (i.e., to fulfill the role of *monetization designer*), in smaller studios, the monetization-related tasks are often delegated to game designers and producers.

Chapter 6, titled "'Obviously you want to be fair.' How free-to-play game developers differentiate between acceptable and objectionable monetization mechanisms" discusses game practitioners' moral considerations. I will turn to the concept of the *moral economy of cultural work* (Banks, 2017), which highlights the embeddedness of practitioners' norms and values in broader society and community norms. As I will demonstrate, free-to-play game developers leverage several principles and reasonings that guide their work and creative decisions, and have shared narratives that equip them against accusations of creating unethical games.

In the Discussion, I will connect the findings to the academic traditions and theoretical concepts presented in chapter 3, and I will reflect on the chosen methodology. In the Conclusion, I will summarize the thesis' main contribution to the field of game production studies—which is to shed light on the complex relationships between monetary and creative considerations in free-to-play game development, in which game creators juggle the creation of cultural leisure products and income-generating software-as-a-service. Finally, avenues for future research are suggested, taking into account the dynamic nature of the games industry. The recent development in the ever-developing games sector has seen the merging of existing revenue models and the birth of new types of monetization. These, in turn, naturally alter the contexts in which games are developed.

2
The free-to-play monetization model

What is the free-to-play monetization model and why is it so controversial? How did it come into being and where can it be situated in the broader ecosystem of the games sector? To provide a backdrop for understanding the object of study central to this thesis, I will here answer these questions by elaborating on the free-to-play monetization model, its history, and surrounding discourses. I will start by locating mobile free-to-play game development within the multifaceted games industry, followed by a brief history of different major revenue models in the games market. Then, I will describe the rise of the free-to-play model in Europe and the USA and subsequently shed light on its development in Germany. In the final sections of this chapter, I will provide an overview of the main arguments in the fierce debates around the free-to-play model, and describe the most common ways in which free-to-play games monetize.

As such, this chapter serves to embed free-to-play as a research object, that is, as a cultural phenomenon, and situate it alongside other parts of the games sector. The next chapter will then deal with the theoretical embedding of my main research questions.

2.1 Terminology used

Before going into the phenomenon of free-to-play games in-depth, I will briefly define some key terms and the way they are used throughout this thesis. First of all, *free-to-play* (sometimes also abbreviated as *F2P*) and *freemium* are used interchangeably and refer to the monetization model (or revenue model) under which games can be downloaded and/or initially played for free, after which the game will try to generate revenue. Such revenue is generated by means of *microtransactions*, that is, the option for a player to pay a small amount of money in the game (mostly through an external payment provider), also designated as *in-game purchases*, or, in the case of mobile game apps, *in-app purchases* (IAP). Microtransactions or IAPs can offer different kinds of content and/or advantages in the game, such as *virtual goods* or *virtual items*, which come in different forms (as clarified below). It should be noted that not all games with microtransactions are free-to-play games, because some games combine an upfront purchase with in-game purchases. A general term for all

games that are *not* free-to-play, that is, games that are purchased upfront, or that are paid for by a subscription, is *premium*.

2.2 Making sense of the games industry: Locating mobile free-to-play game development

Outlining the bigger picture of the entire games ecosystem and pinpointing my research interest in it is not a straightforward endeavor, as various possible logics can be used to divide the games industry into sub-sectors. It can, for instance, be done along the lines of different *hardware types* on which games are played (e.g., PC, console, mobile), or be based on the type of games that are developed, for instance, blockbuster *AAA* productions, independent or *indie* games, or *serious* games (i.e., games with a purpose other than mere entertainment, see Van Roessel & Mastrigt-Ide, 2011). One could also categorize games and game companies based on the *audience segments* they target: hardcore, mid-core, or casual players—indicating the levels of dedication in terms of time, money, and effort invested (cf. Juul, 2010). Furthermore, it is possible to take up an angle of *production logics*, which clusters various *modi* of game production (like Kerr, 2017, which I will further address in the theoretical embedding), or focus on different *actors in the value chains*, that is, which types of companies (e.g., developers, publishers, retailers) are involved at which point in the production and distribution process. In addition, an entry point could be the various platforms through which games are (digitally) distributed, such as the mobile app stores, Steam, or the console's own marketplaces.

Of course, there are more or less common constellations of elements typically found together, and as such the different categorizations cannot be separated entirely. For example, companies that create large AAA games often do so for PC and consoles, with a premium revenue model (i.e., a one-time upfront purchase), involving development studios and publishers as distinct players in the value chain. In contrast, studios developing mobile free-to-play games frequently focus on a casual player segment and are mostly not relying on (physical) distributors. Yet, despite these consistencies, the clusters are not neatly divided in all cases, and—to make things messier—they are constantly shifting. For instance, mobile games may target diverse player segments (e.g., casual or mid-core) and PC games can have different revenue models, such as microtransactions next to upfront payments, but they can also use subscriptions. The graphic "The rise of gaming revenue visualized" (Pelham Smithers, 2020) below illustrates the difficulty in dividing the games industry into unambiguous

categories: The categories are structured along hardware devices, which are Handheld, Mobile, Console, PC, VR, Cloud, and Arcade, but, as I will show later in the section on the history of revenue models, another, more accurate way to categorize revenue models would be by looking at the various ways these games generate income. In that case, the categories would highlight whether or not an advance fee has to be paid in order to play the game (premium vs. freemium), and the hardware the games are made for would be of secondary importance.

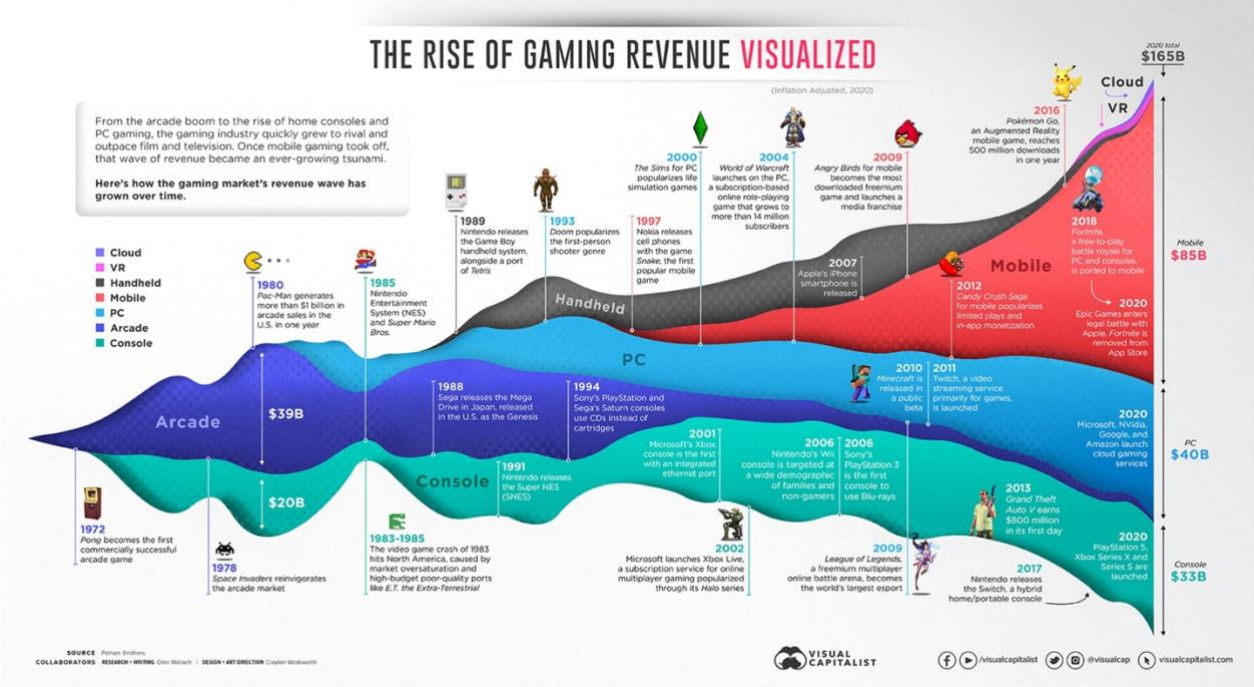

Figure 1: The rise of gaming revenue visualized (Pelham Smithers, 2020).

Thus, it is not clear-cut to map the industry in one overview, at least not without greatly simplifying and/or omitting possible combinations. In order to nonetheless demarcate the object of this study, the first entry point will be the revenue model, because free-to-play games are primarily defined by that—and it was, after all, this revenue model that widely caused a stir, and irrevocably changed the way games are played (e.g., Alha, 2020; Paul, 2020) and developed (as I will show throughout this thesis). Therefore, I will address the rise of several revenue models in more detail in the next section.

Then, a next step concerns the hardware: The free-to-play model is often—but not exclusively—used in mobile games. One of the reasons for this is that the mobile app stores as platforms enable in-game microtransactions. In addition, mobile games enable short,

casual playing sessions due to the flexibility of location. As such, the hardware that is most relevant for this study are mobile devices like Apple iPhones, mobile Android devices, as well as tablets using the iOS (i.e., iPads) or Android operating system.

When looking at it from the perspective of the value chain of production and distribution, companies developing free-to-play mobile games often self-publish, meaning said app stores directly serve as distribution platforms and a dedicated publisher and/or distributor often lack (Castendyk & Müller-Lietzkow, 2017; Kerr, 2017). This does, however, not imply there are no restrictions given by the app stores, as they are not neutral platforms (cf. Gillespie, 2010; Gillespie, 2018), but they have procedures and rules in place for apps to be accepted or rejected (Van Roessel, 2014). In addition, app stores take a share of the revenues generated by in-app purchases (Gillespie, 2018).[3] As such, these platforms have consolidated their place in-between media consumers and producers, "making each of them co-dependent on their products and platforms for formatting, distributing, accessing, and sharing media content" (Deuze & Prenger, 2019, p. 14).

Yet, rather than on the inner workings of the app stores as platforms (which will be addressed when relevant throughout the thesis), the focus lies on another component of the value chain, that is, game production—or game development—as a collaborative creative endeavor. This focal point foregrounds game programming, design, and testing, but also project management (see chapters 4 and 5) and includes the people involved in these activities: game developers. By choosing this angle, this thesis academically positions itself in game production studies and design research, will be the focus of the next chapter.

Table 1 shows an overview of various actors involved in a game production and distribution process (Castendyk & Müller-Lietzkow, 2017). This visualization aims to encompass all possible steps and parties concerned—which will likely not all occur in the process of a single game, because, for instance, actors might incorporate steps themselves or simply have no need for a certain service. As such, the graphic also points at the sometimes-blurry lines between what belongs to the core industry and what does not. Aphra Kerr (2017) also acknowledges this fuzziness to define the digital games industry, being part of the larger "digital economy", as she designates its boundaries "amorphous and poorly understood" (p. 2). For instance, some service companies may have the games sector as their main client,

[3] The roles of these platforms will be mentioned at different points when applicable in this study, but will be no central topic.

whereas others might also work for other media sectors, and game studios might outsource tasks to dedicated sound services or advertisement agencies. The dark green boxes indicate areas that Oliver Castendyk and Jörg Müller-Lietzkow (2017) deem the “core market of the digital games sectors” (p. 63). The current study, however, focuses on the lower left corner, that is, game development studios. The arrow that leads directly from the development studio to the app stores indicates the type of publishing referred to above, which skips specialized publishers and distributors and goes directly to the app stores.

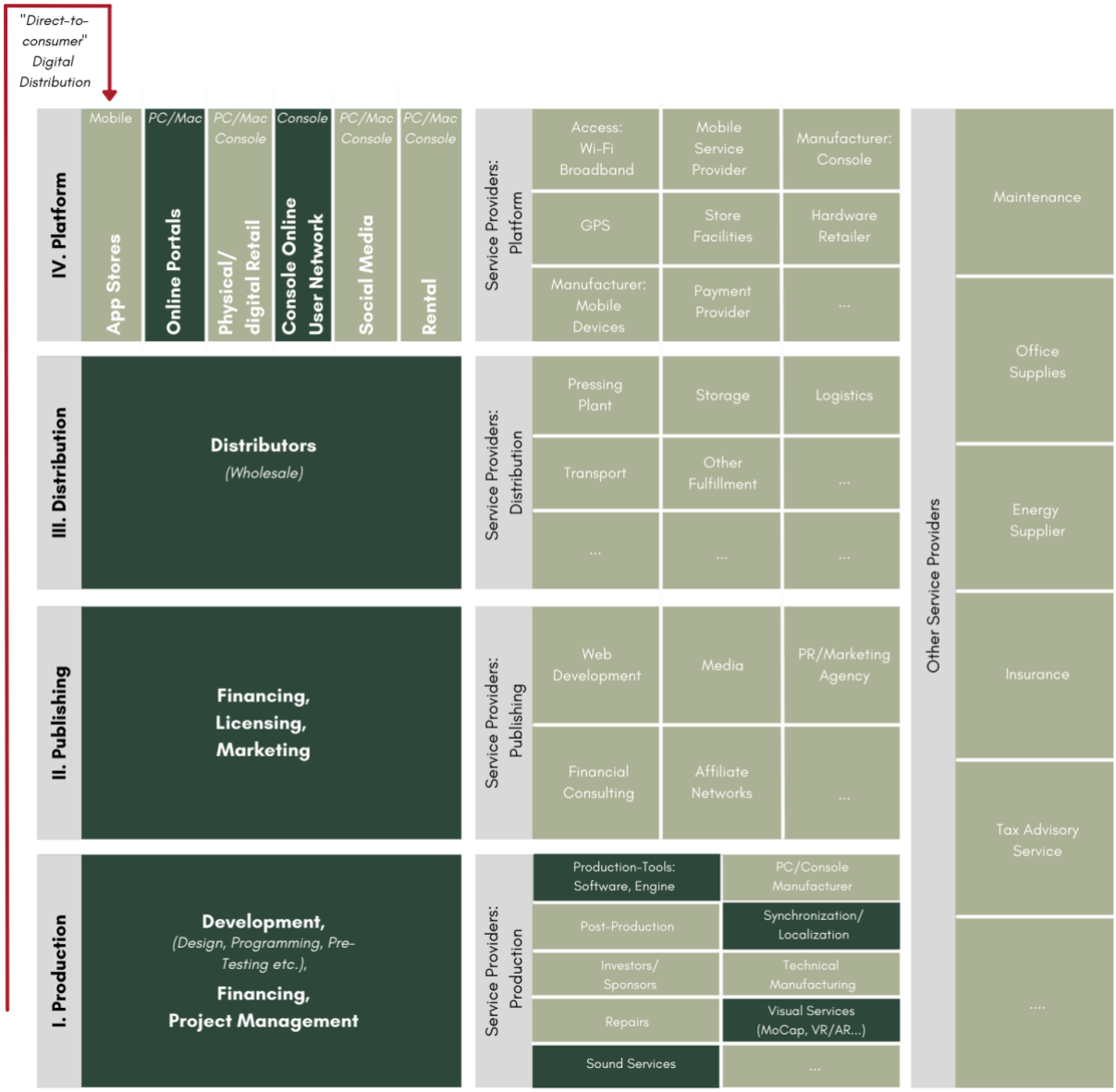

Table 1: Process steps in the computer and video games industry (Castendyk & Müller-Lietzkow, 2017, p. 63, translation and design mine).

A general trend in the games industry that should be mentioned here is the tendency toward concentration and vertical integration. That is, a "relatively small number of companies [...] operate across hardware production and software/content distribution", who are typically "large conglomerates with interests in a variety of industries", some of which have interests in "both hardware and content production" (Kerr, 2017, p. 64). Notable in this respect is the acquisition of abovementioned free-to-play Swedish mobile game developer King (mostly known for its *Candy Crush* series) by AAA game publisher Activision Blizzard in 2016 (Kerr, 2016). A year later, Activision Blizzard's King acquired app analytics firm Omniata (Takahashi, 2017b), which illustrates the extension beyond mere game-related companies and the affinity between user metrics and free-to-play game production (as highlighted throughout this thesis). Recently, this conglomerate got even more encompassing, as in January 2022 Microsoft—who also owns the Xbox console—acquired Activision Blizzard for a staggering 68,7 billion US-dollars (Warren, 2022).

In sum, this study focuses on *the production of free-to-play mobile casual games*, as shown in table 2 below. Accordingly, the interviewees for the empirical study were selected from this segment of the games industry.[4] Since the monetization model is the most important entry point for defining my research interest, I will first delve into the historical development of various revenue models in the games industry—and how the advantages and disadvantages as well as technical possibilities of these various models have led to the beginnings of the free-to-play model. The sections to follow, which address free-to-play's rise and controversial status, will also shed light on why the particular combination of mobile free-to-play casual games is so widespread.

[4] The job postings that complement the interview findings in chapter 5, however, deviate from this, as they were found by searching for the key word "monetization" and as such also concluded positions for paid-for games that encompass microtransactions next to pure free-to-play games. Moreover, in chapter 6, the interview findings are complemented with indie game developers creating premium games (and rejecting the free-to-play model, as discussed in that chapter). In addition, the monetization consultant as an external expert for different kinds of clients formed an exception to the mere production of mobile games.

Basis of Categorization	Revenue Model	Hardware	Type of Game	Target Audience	Actors Involved/ Value Chain
Focus of this study	**Free-to-play/ Freemium**	**Mobile**	**Casual games**	**Casual**	**Developers**
Other Examples	Premium/Retail	Consoles (Playstation, Xbox, Switch)	AAA games	Hardcore	Publishers
	Subscription	PC/Browser	Indie games	Mid-core	Retailers/ Distributors
	Arcade/Coin-up	Cross-platform	Serious/Applied games	Children	Platforms (App stores, Steam, Social Media

Table 2: Different logics to divide the games industry into sub-sectors and the focus of this study. (There is not necessarily a connection between the contents of one row.)

2.3 Revenue models in the games sector

Chronicles of the digital games industry are often structured along the lines of technical development (Van Dreunen, 2011). For instance, in the case of game consoles, the various subsequent releases by hardware manufacturers are designated console "generations" (e.g., Nieborg, 2014). Yet, it is also worthwhile—and for the current study more relevant—to look at the digital games sector's historical development in terms of different revenue models.

It should, however, firstly be noted that traditional analog games, such as folk games, were not meant to make money and were not "owned as intellectual property by anyone" (Stenros & Sotamaa, 2009, p. 2). Accordingly, the origins of such games could not be traced back to particular individuals and the players would craft the pieces themselves. With the rise of major board game companies in the nineteenth century, games increasingly became proprietary goods and were gradually considered products that could be owned and sold. But even the earliest digital games served as demonstrations of technology rather than something to base a business on (Kline, Dyer-Witheford, and De Peuter, 2003; Paul, 2020).

The wide-ranging commodification and commercialization of games took off when digital games started to lead the way in exploring different monetization models (Stenros & Sotamaa, 2009, p. 2) and in the course of two decades, that is, the 1960s and 1970s, games transformed from "geek invention to billion-dollar industry" (Kline et al., 2003, p. 106). Joost van Dreunen (2011) conducted a historical analysis with regard to revenue models for the American digital games market, showing the most prominent shifts in the ways games have made money from the 1980s to the 2010s. Van Dreunen identifies five main revenue models the American games industry went through during this period—which will serve to structure

this section: arcade, retail, digital distribution, subscription, and virtual goods. These models should not be understood as mutually exclusive, but often go alongside each other. Furthermore, a "key differentiating factor is not the shift from one model to the next, but rather their popularization as a critical area of growth for the overall industry" (p. 3)—meaning some technologies, such as downloading games to a console, might have existed for a long time before it was picked up by large numbers of players. As such, only when a large audience base had adopted it, a revenue model could become a reliable source of income. Vice versa, when the point of widespread adoption is reached, game companies cannot afford to ignore the revenue model anymore, because they would run the risk of "missing out on critical funds" (p. 3). Similar to the focus of the current study, Van Dreunen does not include advertised-based models in the overview, as such models make use of indirect revenue streams, whereas all the other models involve direct consumer payment.

So, the earliest major revenue model in the digital games industry was the arcade model—also called coin-op—in which players pay small amounts of money for typically short playing sessions. The arcade model has its roots in times prior to the digital era, as in the early 20th century mechanical pinball machines emerged from gambling slot machines, operating on a *pay-to-play* basis. Arcade games are "deceivingly complex" to design (Van Dreunen, 2011, p. 4), because the game mechanics need to be rewarding but simultaneously encourage players to continue playing—a challenge that has striking resemblance to current free-to-play game development, as I will demonstrate throughout this thesis. Pinball machines as well as arcade games have a high entry barrier as a business for game creators, because the games need to be designed and the machines manufactured before they can start to generate revenues in a game hall or other public space. This part is different from modern-day free-to-play game design, where the threshold to publish games in the mobile app stores is relatively low, as I will explain below. From the early 21st century onwards, the average money spent for arcade games steadily dropped—and other models took over as dominant revenue models.

The second major revenue model is the traditional retail model, which rose in the late 1980s and has historically accounted for most of the revenues in the digital games industry (Van Dreunen, 2011). Retailers have a relatively large influence within this model, as they can define which titles they sell and where to place them in the store. The retail model is hardware-driven, meaning console manufacturers sell advanced hardware at a loss while hoping to make profits with the accompanying software. Accordingly, blockbuster or AAA

titles for the retail revenue model need to become hits due to high production and marketing costs. Therefore, these games typically rely on proven franchises and game principles while avoiding risks of experimental gameplay or graphical styles (Nieborg, 2014). Nowadays, the traditional retail model with a one-time purchase often does not suffice anymore to make retail a viable revenue model, and additional content in the form of DLC (downloadable content) and microtransactions is increasingly made available after a game's release (Švelch, 2017). This content can contain other game modes and various other kinds of extra components or modules that serve to "prolong the magic" (Nieborg, 2014, p. 58). This shows how different revenue models can be combined in one game, and specifically how the retail model—with its one-time upfront purchase—coalesces with the freemium monetization model with its typical microtransactions (a development I will further reflect on in the Discussion).[5]

The possibility to offer additional content after a game has been sold, ties in with the third revenue model: the digital distribution model. As this model enables players to download the game directly to their device, it bypasses physical retailers. Even though the possibility of downloading games on PCs and consoles had been available from the eighties, digital distribution only reached a critical mass in the mid-nineties, spurred by broadband penetration and console manufacturers allowing smaller developers to develop and publish on their platforms (Van Dreunen, 2011). Yet, whereas downloadable casual games could initially charge around $20, a race to the bottom soon started, as "low-cost game development companies flooded the market with cheaply produced imitations of popular titles" (p. 7; see also Van Roessel & Katzenbach, 2020). Next to PC and consoles, mobile devices also allow for digital distribution, but this model only gained traction with the widespread adoption of smartphones in the late 2000s (as elaborated later). Thus, accompanying the digital distribution model, a new kind of intermediary entered the market: digital distribution platforms, which may be owned by console manufacturers themselves (meaning they are dedicated game platforms), but also by third parties such as social media or app stores, which I will address in more detail below.

The fourth revenue model is the subscription model, which was introduced in the late nineties. The subscription model involves a regular (typically monthly) fee for playing and thus

[5] I will additionally address the merging of these revenue models in Chapter 5 in light of the empirical method used in that chapter, as the job postings that are analyzed for this chapter concern positions for both free-to-play and premium games with microtransactions.

requires long-term commitment of its players. It has proven particularly successful in MMOGs (Massively Multiplayer Online Games) such as *World of Warcraft* (Blizzard Entertainment, 2004), which are known as games targeting a hardcore gamer audience, but also more casual game companies have discovered the subscription model (Van Dreunen, 2011). Even though they have never made as much money as games sold under the retail model, subscription-based games have the potential to generate income over a much longer time than one-time purchases (Alves & Roque, 2007). More recently, and thus not covered in Van Dreunen's historical analysis, cloud game services such as Google Stadia have started to use a similar model, which I will address in the Conclusion in light of avenues for further research.

The fifth and final revenue model that Van Dreunen (2011) identifies is "virtual goods", which grew from the digital distribution model as a possible solution to the aforementioned race to the bottom. The "virtual goods" model contains "in-game items or game-related services, such as a virtual currency or items, that enable or enhance game play" (p. 9) and as such, this model forms the core of free-to-play games. Van Dreunen attributes multiple advantages to this revenue model, among other things that the model can help to avoid *crunch time* before the holiday season—which is a typical problem in retail game production—due to the fact that purchases can be spread over time and do not depend on a single moment.[6] However, as previously mentioned, there is often no dedicated retailer involved in games with virtual goods, which, according to Van Dreunen, leads to the fact that "many of the developers and publishers that used to build a boxed product, now find themselves with a lot of extra work (up to 60% of the necessary resources) after the game has been launched," which in turn "forces companies to reorganize their production schedules and resource allocation" (p. 9).

As virtual goods—or the free-to-play monetization model—is the central focus of this thesis, I will elaborate other implications of the free-to-play model more in-depth in the following sections. I will start with its history and rise in the USA and Europe—and in Germany in particular—and continue with an overview of the controversies surrounding the monetization model and the different kinds of monetization techniques commonly used in free-to-play games.

[6] This is related to free-to-play games not having one moment of release, which I will address in more detail in section 4.2.4 about *games-as-a-service*.

Yet, at this point, it should be noted that the free-to-play revenue model is not limited to games. In more functional software, there is also a trend toward applications that are offered as a service, which can (initially) be used for free, while opportunities to spend money for additional services or convenience are offered. Examples include music streaming (e.g., Spotify), videoconference tools (e.g., Skype) or note-taking (e.g., Evernote). Coming from the games perspective and given its controversial status especially within the games realm, I will here focus on the way the freemium revenue model advanced and was received in the games sector. The more general freemium business model will, however, be referred to at various points in this thesis, when connections are relevant to better understand and contextualize the phenomenon (which mainly applies to chapter 4, about the development process of freemium games).

2.4 The beginnings of free-to-play in Europe and the US

Before its rise in the West, in the early 2000s, the free-to-play revenue model had already been widely adopted in Asian MMOGs (Lehdonvirta & Virtanen, 2010). Particularly in South Korea, China, Taiwan, and Japan, free-to-play had proven its tremendous profit potential (Chew, 2016; Lin & Sun, 2011; Van Dreunen, 2011). Then, roughly from the early 2010s onwards, free-to-play monetization became ever more prevalent in Europe and the USA. One of the reasons it took longer for North America to adopt free-to-play were the cultural differences in terms of gaming culture, preferences, and conventions between Asia and the West (Chew, 2016).[7]

To be precise, free-to-play started to gain traction in the USA and Europe in 2009, when it was for the first time successfully implemented in social network games on platforms such as Facebook (Chew, 2016; Kerr, 2017). Most notable in this respect is game company Zynga, which between 2009 and 2012 dominated the social games market in terms of player numbers. Their Facebook game *FarmVille* (Zynga, 2009) was inspired by the highly lucrative Chinese social network game *Happy Farm* (5 Minutes, 2008), and as such East Asia did play a part in free-to-play's introduction to the West (Chew, 2016). *FarmVille* had 85 million registered players in its heyday, and *CityVille*—also by Zynga (2010)—even reached up to 110 million players (Castendyk & Müller-Lietzkow, 2017). Although by the end of 2012 Zynga's popularity had fallen and its stock price plummeted (Castendyk & Müller-Lietzkow, 2017),

[7] This difference is also addressed in chapter 6 on the norms and values around free-to-play.

FarmVille arguably "marked the opening up of the trend toward free-to-play in the USA" (Chew, 2016, p. 230). Other early free-to-play games in Europe and the USA were multiplayer online battle arena (MOBA) *League of Legends* (Riot Games, 2009), and MMOG *World of Tanks* (wargaming.net, 2010).

But free-to-play's worldwide boom began around 2012, when the monetization model rapidly became the dominant business model in the mobile realm. Both Apple and Google had opened up their mobile distribution and monetization platforms (respectively the App Store and Google Play) in 2008 for external developers, that is, shortly after the stores' release in 2007 (Dalrymple, 2008; Metz, 2008). The low-threshold possibility to develop apps for these app stores[8] spurred free-to-play—as well as freemium business models in other sectors—to a great extent. External payment services such as PayPal were involved to ease the purchase process for users willing to spend money. As such, both at developer and player side, impediments to get into free-to-play mobile games were low compared to other platforms and business models: While developers could relatively easily develop and self-publish their games and release them in an early stage to test the game idea (Van Dreunen, 2011), barriers to play mobile games were minimal too, due to the increasing penetration of smartphones in society as affordable devices not solely dedicated to games (Statista, 2015). As such, the aforementioned casual audiences, which formerly did not consider themselves gamers, could try out games without any big time or monetary investments. Noteworthy as an initial success in mobile games is, for instance, strategy game *Clash of Clans* by Finnish developer Supercell, which was released in 2012 for the iOS operating system—i.e., for iPad tablets and iPhone smartphones—and in 2013 for Android-based mobile devices. Another prominent example is *Candy Crush Saga* by Swedish company King, a *match-three game* that also started in early 2012 as a Facebook game, but released for mobile devices shortly after, at the end of 2012.

Today, the freemium monetization model has consolidated as the most profitable monetization model for mobile games. For instance, in Germany in 2019, 99% of revenues generated by mobile games were made by freemium games—and accordingly only 1% was taken up by one-time upfront downloading fees (Game, 2020). Moreover, for mobile applications in general, games have proven to be the most lucrative business: As of October 2021, all apps in the ten top-grossing apps were games (Statista, 2021b). And even though

[8] Note that "app stores" (all lowercase) refers to distribution platforms for mobile applications in general, whereas the "App Store" (in title case) designates Apple's mobile distribution platform.

typically only 1-5% of players in free-to-play mobile games convert into payers, the sheer number of players in the top games enable them to make large profits, that is, these top-grossing mobile games make six-digit revenues from microtransactions on a daily basis (Statista, 2021c). Accordingly, games publishers take up the lion's share (83%) of global revenues generated with apps worldwide (Statista, 2021a)—whereas games' prevalence over other types of apps (e.g., in categories such as productivity, social media, and health) is somewhat stronger in the Google Play store than in Apple's App Store (Statista, 2021b).[9]

2.5 Free-to-play in Germany

Germany's adaptation of free-to-play roughly advanced parallel to its development in Europe and the USA—with some notable country-specific characteristics. That is, in the early 2010s, microtransactions were increasingly implemented in browser and online games, and between 2011 and 2012 the revenues for "virtual additional content" in online and browser games grew by 65% (BIU, 2012). At that time, the German trade association BIU[10] did not measure in-game purchases in mobile apps yet (due to the ambiguity in sector classifications as discussed above), but game apps on mobile devices were predicted to become the "shooting stars of mobile gaming" (BIU, 2012)—which thus concerned premium game apps rather than free-to-play. Somewhat later, revenues with microtransactions in online and browser games increased from 144 million Euros in 2013 to 260 million in 2014—an 80% growth—whereas the revenues with subscriptions in the browser and mobile area stabilized during this time. In other words, the trend toward microtransactions, as compared to subscription models and one-time upfront fees, was already visible in Germany even before free-to-play games had their major breakthrough in the mobile realm.

But soon, also in Germany, the revenues with in-game purchases in mobile apps exceeded those in browser games: While between 2014 and 2015 revenues with microtransactions in online and mobile games only slightly increased from 260 to 267 million Euros (a 3% increase), microtransactions in game apps generated a revenue growth of 36%—

[9] Note that revenues made by in-game advertising are also included in this statistic, meaning it is not merely in-game purchases or microtransactions that make up this percentage, but also income by selling ads that are displayed in the game (Statista, 2021b).

[10] In 2018 trade association BIU (Bundesverband Interaktive Unterhaltungssoftware) merged with GAME Bundesverband der deutschen Games-Branche, and they continued under the name Game – Verband der deutschen Games-Branche (Gameswirtschaft, 2018). Game conducts the most comprehensive research on the games industry in Germany and other statistics and sources tend to be based on their figures. Therefore, BIU and Game are the main sources used in this section.

from 217 to 295 million Euros—thereby surpassing microtransaction in online and browser games for the first time (BIU, 2016). From 2015 on, the growth of revenue with in-game purchases in mobile games (downloaded mainly through the Apple App Store and the Google Play Store) steadily continued. By 2017, smartphones had overtaken consoles as the most popular game devices in Germany in terms of numbers of players, and between 2017 and 2018 the revenues with in-app purchases again grew by 31%—from 1,137 million Euros in 2017 to 1,491 million Euros in 2018 (Game, 2019). This means that in a period of just four years, that is, between 2014 and 2018, the earnings of microtransactions in the mobile realm grew from 217 to 1,491 million Euros—an almost sevenfold increase. At the same time, the share of revenue made by premium game apps, that is, games that can be downloaded by paying a one-time fee without microtransactions, decreased: Whereas in 2013, 62,5% (65 million) of mobile game revenues in Germany were made by freemium games and correspondingly 37,5% were still generated by premium games, in 2016 free-to-play games made an overwhelming 95,8% (392 million Euros) of total mobile earnings (BIU, 2017). As Castendyk and Müller-Lietzkow (2017) describe in their analysis of the German games industry, just as elsewhere in the world "the free-to-play business model brought about a complete realignment of the industry in just a few years, and the term disruption is appropriate in this case" (p. 96, translation mine).

German game companies that started out by developing browser games, such as Hamburg-based studios GoodGame Studios and InnoGames, accordingly began to develop mobile games and port their browser games to mobile platforms. It should, however, be noted here, that when addressing gamer trends and preferences and the rise of free-to-play in Germany, there is not necessarily a strong connection between local game consumption and game production patterns. That is, the market share of German productions in the total revenue figures is small, with an even declining trend: While in 2014 games developed by German studios made up 7% of the total revenues in the German market (of 1,894 million Euros in total) (BIU, 2016), in 2018 this had fallen to 4,3%, even though the German games market as a whole had grown (Game, 2019).

2.6 Controversies

Despite its economic success, the free-to-play monetization model has been highly controversial from the beginning. Particularly during its rise in the early 2010s in the USA and

Europe, freemium games were subject of fierce debates that were fought in the arena of industry events and specialized press (e.g., Bogost, 2014; Schnelle, 2016; Shokrizade, 2013; Smith, 2013). The major shift and unprecedented changes that free-to-play elicited led various stakeholders in the games sector, that is, developers, game company executives, game journalists, industry consultants, and—last but not least—gamers, to "voice their concerns, hopes, and doubts regarding free-to-play" (Chew, 2016, p. 228).

For instance, the profound connection between monetization and game design, specifically the psychologically sophisticated and sometimes opaque ways in which free-to-play games integrate the gameplay with monetization mechanisms, caused concerns about the quality as well as ethics of such games, or as Elizabeth Evans (2015) formulates it, "raises the complex relationship between game design and commercial strategies" (p. 1). Some opponents claimed the model was unethical because it would lure players into an activity of which they cannot foresee the financial consequences (e.g., Shokrizade, 2013). Likewise, the fact that a small minority of players spend large amounts of money, and thereby bring in a considerable part of the revenues, led to concerns about addiction and the responsibilities of game developers in this respect. Moreover, some contended that free-to-play games could never be good games, as paying real money to progress in the game trivializes the efforts and the personal investment that made those experiences valuable to begin with (e.g., Bogost, 2014; Smith, 2013). Next to criticism voiced in outlets such as blogs and news websites, academic accounts also accused the monetization model of being unethical. For instance, José Zagal, Staffan Björk, and Chris Lewis (2013) describe some free-to-play monetization techniques as "monetary dark patterns" in game design, as they "deceive players into spending more money than they expected or anticipated" (p. 4). Evans (2015) as well as Castendyk and Müller-Lietzkow (2017) make similar claims by arguing that free-to-play mobile games' core commercial strategy is the exploitation of their players' impatience, thereby referring to a specific kind of monetization technique, namely paying for skipping time (see below). Mia Consalvo and Christopher Paul (2013) look at the debate from a meta-perspective and designate free-to-play as a monetization model that, in gamers' discourse, does not belong to "real games". Particularly troublesome, so the gamers' rationale in this discourse, is how "the free-to-play system subverts a player's sense of rational choice in regards to the purchase" (p. 6).

Proponents of the monetization model countered the accusations by claiming that the free-to-play model is not worse than, say, purchasing an expensive (and possibly bad) product upfront, after which the consumer runs the risk of being disappointed and regretting having spent money for it (Chew, 2016; Lin & Sun, 2011; Van Dreunen, 2011). With free-to-play games, a player can at least try out the game first and then decide whether it is good enough to pay for it (e.g., Koster, 2012). Free-to-play game designer Ben Cousins argues that the "establishment" in the games industry is simply afraid of change and therefore tries to keep everything as it was—including its proven game genres and time-honored business models (Cousins, 2014). Others, for instance Bernd Beyreuther (2016), contended that regarding free-to-play games as inherently bad games exemplifies an obsolete, narrow concept of games, for instance by implying that the nowadays generally discarded game concept of "magic circle" (Huizinga, 1980; Salen & Zimmerman, 2003, see also chapter 6) would still apply. Moreover, proponents of the monetization model argued that the profitability of the business model shows how much players like it and this in itself consolidates its place on the games market. In other words, "players silently vote for free-to-play with their money and time" (Chew, 2016, p. 242).

Other game professionals took a less polarized stance, arguing that a number of exploitative and badly designed free-to-play games are responsible for the bad reputation of the business model as a whole, and that there are questionable ways but also best practices of how to tie the monetization to the game design (e.g., Costikyan, 2014; Green, 2014). Jan Švelch (2017), addressing microtransactions in premium games (as explained above as a combination of free-to-play and premium games), similarly found "complex social realities of microtransactions which cannot be easily reduced to essentialist definitions" (p. 117) in a discourse analysis of players' attitudes. This complexity led to "different discursive stances" ranging from "a general bipolar scale of rejection and acceptance to more specific perspectives which account for the content of microtransactions, its connection to single player or direct compensation systems" (p. 117). Likewise, based on a discussion workshop with free-to-play developers, Tom Phillips (2016) found "no universal embrace or condemnation" and concluded that "a binary black and white opinion on ethical business practice appears misguided" (p. 70).

The critique of the free-to-play monetization model and microtransactions thus concerns different levels and dimensions of games. Based on a discourse analysis aiming to

make sense of "the cacophony of highly polarized opinions", Matthew Chew (2016) identifies four major debates in discussions on free-to-play, in which viewpoints were expressed through arguments supporting either side of these debates: 1) Is free-to-play a fad or is it the future direction for the games industry? 2) Is free-to-play good for the industry or not? 3) Is free-to-play undermining game quality and creativity? And 4) Is free-to-play unethical or not? (p. 228). As Chew's discourse analysis is of particular relevance for my research interest, I will here briefly elaborate on the four debates distinguished in the study.

The first debate, about whether free-to-play is the future of the industry, was settled fairly quickly after the initial years, as many free-to-play sceptics acknowledged that the business model was probably there to stay. This was also thanks to the fact that while early freemium games—like the ones from Zynga discussed earlier—were indeed generally criticized, a wider spectrum of free-to-play implementations emerged soon after, which contained more qualitative and sustainable monetization mechanisms. Therefore, from 2013 onwards, "voices that claimed free-to-play was a fad gradually died down" (Chew, 2016, p. 235). Nevertheless, Chew points at some problematic aspects of the aforementioned argument that free-to-play must be the industry's future based on its enormous popularity: It assumes players to be "rational economic beings", thereby regarding games as "functional software products instead of creative cultural products" (p. 234)—a view that does not do justice to the games sector and games as an entertainment medium (Chew, 2016; Kline et al, 2003), as I will also address in the next chapter.

With respect to the second debate, which concerns the question of whether free-to-play is good for the industry, proponents argued that free-to-play, thanks to its profitability, can create better working conditions for the industry's creative workers. A counter argument is that this would only work when the monetization model is done sustainably, as short-term successes (such as, again, the quick rise and fall of Zynga) are not helpful for a healthy industry in the long run.[11]

In the third debate, that is, whether free-to-play undermines game quality and creativity, Chew (2016) identifies five types of arguments that were used to criticize free-to-play. Discussions in this debate concerned, 1) the heavy influence of metrics in the free-to-

[11] Although the broader discussion of worker conditions in the games industry is beyond the scope of this thesis, chapter 5 will address the different roles and tasks that free-to-play game development involves, and thereby touch upon issues of changing workloads and expertise requirements for game professionals in the free-to-play realm.

play design process;[12] 2) the abovementioned criticism that freemium games cannot be 'true' games due to possible shortcuts for money; 3) the dominance of monetization-based decisions at the expense of gameplay-based decisions; 4) a limited access to game content for those players who lack the financial means to get past the paywalls; and 5) the free-to-play model "generating a lot of poor quality games with sophisticated monetization features" (p. 238).

On the other side, Chew found four clusters of arguments in favor of free-to-play in this debate. These arguments, firstly, emphasized that the freemium model can actually have a positive impact on game quality, as it enables players to choose and try out different games and subsequently stick with the best games. As such, it incentivizes game developers to create high-quality games that engage players over time. The second argument entails that precisely data-driven design allows for regular player feedback and thereby would lead to better games. Thirdly, it was argued that some genres that make use of the free-to-play model are hardly affected by bad monetization, as they have their own typical monetization mechanisms that are accepted and do not threaten game quality.[13] Lastly, in other business models, the monetization model would tie in with—and limit—game design just as well, as for instance in the aforementioned AAA blockbuster productions, a significant part of the budget must be allocated to marketing in order to prevent the game from flopping.

Finally, the fourth debate concerned the ethical dimension of free-to-play games, which according to Chew (2016) was "the most emotionally charged and lasting among the debates" (p. 240). The debate in turn contained four types of accusations: Firstly, free-to-play lives from the greed to "hunt for whales", that is, target the small fraction of players that is willing to spend large amounts of money in the game. Secondly, especially vulnerable groups such as small children or people prone to addiction would be exploited by freemium games. Thirdly, free-to-play games deceive their players, as costs to play the game are not clear upfront—and 'free' as such is a misleading term—and lastly, opaque marketing techniques such as adaptive pricing cause exploitation of players. These accusations are again countered by various arguments: that "snobby" veteran game professionals are just unfamiliar with the monetization model (as also mentioned above); by contending that games are too apolitical

[12] See also chapter 4 for a more in-depth discussion of the connection between freemium business models and data-driven design.

[13] See below about the different types of monetization, and also chapter 6 on the general acceptance of "paying for cosmetics" as a monetization mechanism.

to be considered unethical; by claiming the criticism displays an elitist way of looking at games, because it dismisses the preferences of the masses as unethical; and, lastly, by saying that other monetization models such as the subscription-based model can be equally unethical.

Thus, the first two debates identified by Chew (2016) concern the prospect of the industry, that is, whether free-to-play is the future of the industry (which was settled relatively quicky) and whether the revenue model is favorable for the industry. The third debate deals with what free-to-play means for the quality and creativity of games, whereas the fourth debate focused on the ethical dimension of free-to-play games and their alleged effects on players. Another notable finding of this discourse analysis is that, although one might expect otherwise, Chew found no consistent differences between the argumentative positions of different positions and interests within the games sector. In other words, whether someone is against, in favor of, or has more neutral or nuanced stance toward free-to-play, does not depend on their position as e.g., a developer, gamer, journalist, or industry consultant.

I will address the debates as identified by Chew at various points throughout this thesis. Chapters 4 and 5—on the free-to-play development process and the people involved in this process—are mainly connected to the second and third debate, as they relate to how free-to-play has affected the games sector as well as everyday practices and skillsets for game developers. Chapter 6, which deals with free-to-play game professionals' moral considerations, mostly ties in with the fourth debate, that is, on the ethics of free-to-play, but addresses topics from the third debate as well. This is also the chapter that will most thoroughly further address the controversies around free-to-play games.

2.7 Controversies in Germany

Chew's analysis mainly concerns the US-American discussion. To the best of my knowledge, there is no similarly systematic and rigorous discourse analysis that focuses specifically on European or German discussions on free-to-play. It is, however, highly likely that the discussion held in Europe resembled the US-American one. This is, among other things, due to the fact that game development blogs (such as *Game Developer*)[14] as well as industry events typically target a global audience. Yet, a noteworthy German-speaking account of the free-to-play debate—although not an academic analysis—is an article published on German games

[14] Until August 2021, *Game Developer* was called *Gamasutra*

sector website *gameswirtschaft.de* by prominent industry veteran Bernd Beyreuther (2016).[15] Beyreuther wrote the article as a reaction to game journalist Mick Schnelle claiming that free-to-play was a scam (in an article titled *Der Free2play-Nepp*). In the article, Beyreuther summarizes Schnelle's objections to free-to-play in four arguments, before dissecting them and providing his rebuttals to each point. One of the criticisms towards free-to-play is that real games should have a beginning and an end, which Beyreuther counters by saying games cannot be reduced to narrative-filmic experiences, but that one of their core characteristics is precisely their *replayability* (examples: chess, the Sims), thereby referring to games' twofold nature as audiovisual media and ludic configurations. The next accusation is that free-to-play apps are not games, which Beyreuther counters by contending that only snobbish and non-inclusive views of games (cf. the aforementioned discourse of "real games" by Consalvo and Paul, 2013) would exclude a phenomenon like free-to-play from being games to begin with.

Another argument points out that the free-to-play industry would use thimblerigging and fake tactics. With regard to this, Beyreuther refers to the different ways in which free-to-play games monetize, and deems it rather superficial to only look at bad examples, while ignoring more harmonious and sustainable ways in which other freemium games implement monetization mechanisms. Schnelle's last point (as summarized by Beyreuther) argues that the free-to-play industry hampers creative people, who could be making more valuable and high-quality games, and thereby free-to-play hampers the German games industry. Beyreuther comes to free-to-play's defense, claiming that it has helped the German games industry flourish. He even goes so far as to say: "Actually, before free-to-play, there was not really a German games 'industry'. [...] Free-to-play made the German games industry—which in turn made the western free-to-play market."[16] The latter likely refers to the fact that Germany was, compared to the rest of Europe and the USA, early to adopt the free-to-play model in browser games (as I discussed in the former section), that is, in the USA and elsewhere in Europe free-to-play only became widespread with the advance of mobile games. Beyreuther continues to argue that it may be true that not all free-to-play games are high-quality games, but that the free-to-play model brought stability to the German games sector

[15] The article is titled: "Bernd Beyreuther: 'Free2play-Nepp?' Von wegen!" ("Bernd Beyreuther: 'Free-to-play a rip-off?' Quite the contrary!")

[16] Translation mine. Original quote: "Eigentlich gab es vor Free2play keine wirklich deutsche ‚Industrie'. [...] Free2play hat die deutsche Spieleindustrie geschaffen—und diese wiederum den westlichen Free2play-Markt."

where it was lacking before. Therefore, according to Beyreuther, the now more mature and stabile sector will soon yield qualitative and financially sustainable freemium games.

Beyreuther's account thus provides an insight into how the debate about free-to-play was held in Germany, and demonstrates very similar arguments and counterarguments as the ones found by Chew (2016). In fact, the four main debates Chew identified, which are whether free-to-play is the future of the industry, whether it is favorable for the industry, what free-to-play means for the quality and creativity of games, and the ethical implications of the effects on players (i.e., free-to-play games are thimblerigging), are all addressed in the article.

More recently—hence not included in both Chew's discourse analysis and other accounts referred to above—the debate on games and monetization has begun to center around loot boxes (Nielsen & Grabarczyk, 2019). Loot boxes (or loot crates) contain an unknown set of virtual items, and only after buying and opening the loot box will a player find out to what extent these items are useful and/or valuable in the game. Critics argue that loot boxes can and should be defined as gambling and are to be regulated as such (Perks, 2021). Loot boxes are typically additional monetization techniques in already paid-for games—an example of the coalescence of premium and freemium revenue models as described above—and as such, they do not apply solely to free-to-play games. I will address the controversies around loot boxes in chapter 6, but, since the discussion only flared up after the interviews for this study were conducted, and it concerns premium as well as freemium games, it will be treated rather as a side note.

2.8 Types of free-to-play games and monetization mechanisms

As shown in the former section, debates around free-to-play have become more differentiated over time, and views of wholesale rejection shifted toward more nuanced attitudes, which deemed certain monetization mechanics more harmful than others. Therefore, it is useful to take a closer look at the various ways free-to-play games monetize. There are several—more and less exhaustive—categorizations of the most common monetization mechanisms in free-to-play games. For instance, Van Dreunen (2011) identifies "*functional items* (e.g., a sword), *access* (for instance to a certain area in the game), *temporary abilities* like invincibility, and *vanity items*, which serve a social function," all of which can be "tweaked and modified to find the optimal equilibrium between supply and demand, at relatively little cost to the developer" (p. 9, emphases mine). There are many—more and less

detailed—categorizations of free-to-play monetization techniques, especially when also considering the numerous industry accounts in blog posts and handbooks. There are two classifications by game scholars that I would like to highlight here, as they are particularly systematic and relevant to my research interest.

The classification suggested by Paul (2020) in his book *Free-to-Play. Mobile Video Games, Bias, and Norms* distinguishes between three primary modes of organizing payment structures in free-to-play games which elicit different kinds of public and industry debates: buying/spending 1) as a requirement, 2) as an advantage, and 3) as an option. The first category contains games that typically require a one-time purchase to acquire the whole game after some free limited version of the game has been played (e.g., shareware), but in a 'softer' version it can also entail a limited number of purchases to buy extra content or reach extra levels. There is a maximum amount one can spend to have access to the whole game and as such, exploiting players is nearly impossible. Therefore, according to Paul, it is the least controversial type of payment structure.

In contrast, games that belong to the category of "spending as an advantage" are often subject to debate, as they are often designed to "give those who pay persistent structural advantages over those who do not" (Paul, 2020, p. 27). Games with suchlike monetization are "frequently at the center of bias about free-to-play games, as they constitute a huge section of the market and symbolize something different about the future of games" (p. 28). Typical monetization techniques include paying to skip time or for so-called *boosters*, which give temporary advantages for instance in match-three games. As such, in these games "skills and time are substituted for money" (p. 28) and they are most likely to be found on mobile platforms rather than on PC or consoles (as also addressed earlier in this chapter). According to Paul, advantage spending upsets gamers' understanding of what good games are, but at the same time they offer the highest revenue possibilities for developers, which puts the latter in a dilemma. Finally, the last monetization category of "paying as an option" enables players to buy cosmetic elements mainly to improve their character's appearance, which "let a player show off their support for the game developer and their dedication to a particular character or approach" (p. 29). This means this kind of monetization does not provide the player a competitive advantage over other players, and—as it ties in with dominant gamer discourse—it is hardly controversial.

As the payment structure that is most widespread and profitable, while simultaneously controversial and interesting from a game design perspective, the focus of this thesis mainly lies on the production of games with *advantage spending*, which is the type that is most common in mobile games. Hence, as explained above, I focus on the production of free-to-play games for mobile devices. However, the three modes are not always clear-cut, since, as Paul explains, there might be 'softer' and 'harder' ways to implement the monetization types, and games might also include more than one mode of payment structure. In the empirical study, interviewees sometimes referred to the other two modes as examples or juxtapositions, and, as such, these monetization modes cannot be left out of consideration completely.

The other—more detailed—classification of different kinds of monetization techniques I would like to address here is by Kati Alha (2020), who starts out by differentiating between various types of "paid content" that are used in free-to-play games: *cosmetic, convenience, advancement, power,* and *social content* (p. 31). Alha adds a second dimension to this categorization by taking into account the purchases' "effect times" (p. 31), that is, how long the benefits of a microtransaction last. This dimension again consists of three categories: *Consumable* items have a one-time short effect, whereas *permanent* items will stick for the remainder of playing the game and *subscription* forms a category in between, entailing "voluntary periodic fees, which give benefits only while the player pays the fee" (p. 31). These two dimensions result in a matrix with a total of fifteen (3x5) different types of paid content, in which every type is provided with an example:

	Consumable	Subscription	Permanent
Cosmetic	Limited time costume	Premium portrait	Permanent costume
Convenience	Easier harvesting	Premium inventory	Inventory upgrade
Advancement	Energy refill	Premium XP	Level unlock
Power	Booster	Premium ammo	Weapon upgrade
Social	Shared booster	Premium chat	Guild upgrade

Table 3: Examples of different types of paid content in free-to-play games (Alha, 2020, p. 31).

Alha elaborates on monetization forms that are typical in certain genres, devices or platforms and furthermore points out that some combinations are more common than others. For instance, cosmetic items are more likely to be permanent (e.g., permanent costume), whereas permanent advancement purchases are rarer. Similar to Paul (2020), Alha also points out that for the kind of games central to this thesis, that is, mobile free-to-play games with monetization in the form of "advantage spending", consumable advancements like instant energy refills (instead of having to wait for them) and consumable power-ups such as boosters (which make the player temporarily more powerful or skilled) are most common. Figure 2 shows an example of a suchlike booster.

Figure 2: Example of a *booster* in match-three game Jelly Splash (Wooga, 2013). Want to continue playing? Choose between "Three more moves" (for 70 coins) and "Give up".

Figure 3: Example of a *consumable advancement* in strategy game Boom Beach (Supercell, 2014). The player can either wait 22 hours for the headquarters to improve, or choose "immediately" ("sofort") and buy the 62 diamonds needed for that.

Alha's detailed and systematic categorization is a helpful start to address different monetization mechanisms. It will serve as a reference throughout this thesis, for instance, when discussing the ways developers account for monetization mechanisms in the game design process or unpacking game professionals' moral considerations with regard to different monetization techniques.

2.9 Conclusion

In this chapter, I have located free-to-play mobile games within the multidimensional games industry, while taking different classification logics into account. I have shown that the free-to-play—as one possible revenue model next to, for instance, retail or subscription-based games—is particularly widespread for mobile game apps, and these mobile game apps often cater for a casual player audience. Moreover, this study focuses on the production of free-to-play games as done by game development studios, as opposed to other actors in the value chain such as distribution platforms or service providers.

Free-to-play has gained traction in the USA and Europe in the early 2010s and soon became the most profitable monetization model, particularly for mobile applications—generating the lion's share of income in this area. In Germany, the monetization model was

initially adopted in online browser games, but soon also gained dominance in the mobile market. However, despite its overwhelming success—or perhaps also due to it—the revenue model has caused heated debates in Europe and the USA. A certain depreciation of free-to-play games is deeply ingrained in the discussions (Paul, 2020), and even though "free-to-play games are played extensively, they are less valued than other games" (Alha, 2020, vii). Opponents initially considered it merely a fad, or blamed free-to-play for corrupting games and the games industry. Other criticism concerned the alleged loss of quality and creativity in freemium games. Most emotionally-charged, however, were the discussions around the ethical implications of free-to-play. These discussions included the strategy to "hunt for whales", that is, to find and cater to a small fraction of players who are willing to spend large amounts of money, as well as the allegedly deceptive nature of free-to-play games, as the actual costs of playing remain opaque.

In the last section of the chapter, I have addressed two classifications of commonly used free-to-play monetization mechanisms, situating my research interest mainly in the category of monetization techniques that are based on "advantage spending" (Paul, 2020), while referring throughout the thesis to the more detailed classification by Alha (2020).

After having sketched a backdrop for understanding the empirical study as presented in chapters 4, 5, and 6, I will in the next chapter contextualize my research interest academically, by embedding it into two theoretical strands of (game) production studies and design research.

3
Theoretical embedding

In this chapter, I will present the general theoretical framework and scholarly traditions in which this thesis can be situated. After pointing out the lack of research to date into the production aspect of free-to-play games, I will elaborate on this thesis' main embedding in the emergent academic field of game production studies, which borrows concepts from media industry studies as well as its sub-field production studies. The subsequent section will address the level of analysis of this study, that is, zeroing in on a micro-level, while connecting this to macro-contexts, after which I will shed light on the concept of *production logics* as a useful concept to describe these macro-contexts. I will especially elaborate on the *platform logic*—as one of five production logics in the games industry identified by Aphra Kerr (2017)—under which free-to-play game production can be subsumed. Then, I will show that next to game production studies, another academic area provides useful insights for this study, which is design research, as it has a focus on the temporal dimension of game development, that is, the activities performed in the (iterative) development processes of games and other types of software.

At this point, it should be noted that the following chapters (4, 5, and 6) each have their own analytical lenses with corresponding theoretical concepts (also to ensure these chapters can be read as stand-alone texts), and therefore this chapter will mainly sketch the broader academic backdrop.

3.1 (Free-to-play) game production as an understudied topic

Game scholars have started to follow suit to free-to-play's rise. Even though academics in game studies mostly neglected issues regarding free-to-play during the first European and US-American boom in the early 2010s (which is likely connected to their status as less valuable games, as discussed earlier), research on free-to-play games has mushroomed in roughly the past five years. In discussing the history and controversies around free-to-play games in the former chapter, I have already referred to several academic accounts dedicated to the revenue model. Many of these studies and analyses focus on the reception of free-to-play games, for instance by examining player motivations to play and spend money (e.g., Hamari,

2015; Alha, 2020)[17] or as discourse analyses of the public debate and controversies surrounding the monetization model (e.g., Chew, 2016; Lin & Sun, 2011; Paul, 2020; Švelch, 2017). Furthermore, some scholars conducted games analyses (i.e., textual analyses) or looked at game reviews with a focus on monetization design—sometimes basing conclusions about the intentions of developers on such analyses (e.g., Ball & Fordham, 2018; Evans, 2015; Prax & Andiloro, 2016; Zagal, Björk, and Lewis, 2013). Others again approached freemium games with a political economy lens to examine the phenomenon from a birds-eye, systemic view (e.g., Nieborg, 2015, 2016, 2017; Kerr, 2017). Two notable exploratory studies on the production perspective of free-to-play games are by Kati Alha, Elina Koskinen, Janne Paavilainen, Juho Hamari, and Jani Kinnunen (2014) and Tom Phillips (2016), who conducted interviews and a workshop with game developers, respectively. Whereas Alha et al. (2014) found generally positive attitudes among Finnish free-to-play developers, Phillips' (2016) more diverse group of developers and industry experts from Europe and the UK showed a more mixed image. Phillips concludes by pleading for an ongoing and open debate between all stakeholders on the ethics of the revenue model. Both authors, however, address the business model in its entirety rather than going into the detailed specificities of distinct monetization mechanisms and work practices.

All of these approaches provide valuable insights into the phenomenon of free-to-play games, and I refer to these texts throughout this thesis. Yet, apart from the two studies mentioned above, the production aspect or specifically how free-to-play games come into being, has not been given equal academic attention. This study takes this hitherto understudied aspect as its focal point: What are the production context and day-to-day practices of game professionals working in the free-to-play realm? How are design decisions shaped by game development routines, genre conventions, role expectations, and moral considerations, and how does the particularly profound integration of monetization and design in free-to-play games affect their production?

In order to contextualize and understand the underrepresentation of studies on the production of free-to-play games to date, we should zoom out to the research areas of game and media studies, as this lack of attention towards production aspects is symptomatic for a

[17] In fact, Alha's (2020) doctoral thesis includes the 2014 paper on developer attitudes, and interviews with developers are thus part of the multi-method empirical approach. The overall thesis, however, focuses on the games themselves and how they are played, as the title also reflects: "The Rise of Free-to-Play. How the Revenue Model Changed Games and Playing".

certain blind spot in both game studies in particular and media studies more generally. That is, for a long time, media and communication studies have regarded the role of media in society as a rather one-directional process, which displayed in an emphasis on effect and reception research. Stig Hjarvard (2012) criticizes this limited scope of media research. According to him, both effect studies, in which media are studied as "independent variables exerting an influence on dependent variables," and reception studies—although having a different perspective that assumes "the powerful media user as an independent agent"—consider media, explicitly or implicitly, an external factor (p. 30). Therefore, as a framework to understand the influence of media in society, both perspectives have become outdated. Rather, instead of being an outside factor that exerts an effect on society, media's importance should be understood "by their very presence inside society" (p. 30).

Game studies also exhibits this tendency of focusing on effects and reception research. In its consolidation years, the concentration on effect studies was amplified by concerns about violent games allegedly making their players more aggressive, which dominated public discourses on games—and to which scholars responded (cf. Ferguson, 2015; Kowert & Quandt, 2016). Furthermore, and related to these moral panics, game studies needed to justify why studying (digital) games deserved to be a research area in the first place. The debate between the so-called *ludologists* and *narratologists* in the early 2000s—in which the former fiercely claimed games were ludic systems first that should academically be treated accordingly, whereas the latter argued games could also encompass narrative elements—helped set the agenda for game studies and establish it as an academic discipline (e.g., Eskelinen, 2001). As such, this discussion was initially mainly concerned with the ontology of games, and focused on questions of how to define games and what characterizes them as cultural and aesthetic objects. Therefore, textual analyses of games were—and arguably still are—the dominant empirical approach. Many academic papers in journals such as *GameStudies.org* and *Games & Culture*, as well as the proceedings of the annual *DiGRA*[18] conferences, are based on, for instance, games analyses regarding the graphical portrayal of certain people or things (e.g., Austin, 2021; Mochocki, 2021; Pitroso, 2019), the accuracy of historical depictions (e.g., Mukherjee, 2016; San Nicolás Romera, Nicolás Ojeda, and Ros Velasco, 2018), and more recently, as mentioned above, the implementation of revenue models. Accordingly, research concerned with making games have been an exception. Kerr

[18] Digital Games Research Association.

(2017), for instance, found a "surprising lack of attention to the industry and production aspects of games" (p. 10) in English language books. Likewise, Olli Sotamaa and Jan Švelch (2021) argue that the "definitional discussions of games have often focused on the interplay between games and their players, relegating the study of game making to a marginal role" (p. 9).

3.2 Game production studies

There is, however, increasing awareness for the games industry and the ways games are made, both in academia and in public discussions (Sotamaa & Švelch, 2021). This growing body of research into game production emerges from the idea that incorporating the production perspective is essential for understanding games in their broader context. In order words, in order to better grasp the interplay between games and society, one should not only look at effects, but also look at *how, by whom*, and *under what circumstances* games come into being. This means to examine the production processes and industries that are behind these games.

The academic accounts in this growing area of *game production studies* are diverse in terms of approach, methods, and scale. For instance, whereas Casey O'Donnell (2014) describes an extensive ethnographic study in an *AAA* development studio in his book *Developer's Dilemma: The Secret World of Videogame Creators*, Anna Ozimek (2019) bases her findings concerning precarious labor conditions among *Q&A testers* on qualitative interviews. Jennifer Whitson (2020, 2021) uses both empirical approaches (i.e., ethnographic shadowing and interviews) in her work on the missing role of the producer in indie game development and on how aspiring game developers learn their craft, respectively. In contrast, in her book *Global Games: Production, Circulation and Policy in the Networked Era,* Kerr (2017) draws upon a cultural industries approach from a macro-level perspective, and David Nieborg (2011, 2014, 2016) looks at the industry with a lens of political economy of communication, focusing on larger finance structures and power concentration, both referring to authors such as David Hesmondhalgh and Bernard Miège. Švelch (2020) again draws from John Caldwell's concept of *shadow academy* to analyze the depiction of a game studio in a comedy series co-produced by Ubisoft, and Mia Consalvo (2013) analyzes the economic strategies of multinational corporation Square Enix leveraging the concept of *cosmopolitism*.

Sotamaa and Švelch (2021), editors of the book *Game Production Studies,* welcome this variety of academic endeavors, as it corresponds to the "sometimes contradictory and

competing approaches that define the current mode of video games production" (p. 9). Therefore, so Sotamaa and Švelch, "any homogeneous perception of the video game industry must be contested" and due to this "multifaceted nature of video game production, its academic study necessarily includes a diverse set of theoretical approaches and empirical phenomena" (p. 9). Thus, the emerging field of game production studies embraces various kinds of empirical methods and theoretical approaches—from macro-perspectives to zooming on particular production sites—because a too-narrow understanding of how game production studies should be done would not do justice to the heterogeneous character of the sector.

By taking this inclusive approach, game production studies does not seem to be divided by opposing visions about the best perspective or research angle, as is the case in the overarching discipline of media industry studies. In this field, there are competing views of how best to "see the field" (Vonderau, forthcoming): *Media industries studies* in general are concerned with economically significant 'mass media' industries, including "television, radio, film, magazines, music, video games, and newspapers" (Havens & Lotz, 2017, p. 5), and questions include how these industries are affected by trends such as digitization and globalization. Thereby, central topics include economic issues of ownership and conglomeration as well as "commercial mandates" (Havens & Lotz, 2017, p. 25). Some scholars, however, challenge this perspective and propose a more micro-level focus, which is designated *production studies* (e.g., Mayer, Banks, and Caldwell, 2009). This approach examines "specific sites and fabrics of media production as distinct interpretative communities, each with its own organizational structures, professional practices, and power dynamics" (Banks, Conor, and Mayer, 2016, p. *x*). As such, production studies explores the "local, regional, and national cultures of global media production through the perspectives of a diversity of media makers" (Banks et al., 2016, p. *x*).[19] For instance, John Caldwell (2013), one of the leading scholars within production studies, explores how the distributed creativity in film production affected notions of authorship and visibility. Furthermore, Vicki Mayer (2009), by presenting fieldwork with reality television casting personnel, "theorize[s], from the ground, how it 'works': making producers into productive subjects" (p. 10).

However, in the case of game production studies, researchers seem to be less urged to take a stance or commit to one perspective, as the priority of game production scholars arguably lies on putting game production studies on the map of both game studies (as argued

[19] For an overview of these different strands within media industry studies, see Vonderau (forthcoming).

above) and media industry studies (as the latter also shows a lack of studies into the games industry, see Kerr, 2017). Delineating different angles and scales thus seems of lesser concern to these scholars and, as such, the various approaches in game production studies are believed to complement each other rather than compete with each other. In other words, *game production studies* is not necessarily game studies' equivalent of *production studies*, as it does not only account for specific sites of media production, but also encompasses macro-approaches. Instead, game production studies is more comparable to the broader area of *media industry studies*, which can be considered a "field" rather than a discipline, in the sense that it constitutes "a particular space of scholarly inquiry in which differing research perspectives and agendas congregate but without cohering" (McDonald, 2022, p. 2).

3.3 Level of analysis

Thus, this thesis, with its main interest in the way games are created (instead of the games themselves or the way they are played), is naturally situated in the emerging academic field of game production studies. The level of analysis relevant to my research interest, however, mainly follows that of production studies, as, in line with this approach, it focuses on the lived experiences of free-to-play game developers and foregrounds development practices as well as individual considerations and attitudes of these professionals. More precisely, it is the connection between the macro and the micro that is explored: How are the production processes on a micro-level subject to conditions shaped by commercial and market contexts, but also community norms and common practices? To what extent is there leeway for the creative professionals in the way they "enact their roles" (Banks, 2017)? By linking macro-structures with local production practices, I follow, among others, Mayer (2009) who formulates it as follows:

> "Production studies [...] 'ground' social theories by showing us how specific production sites, actors, or activities tell us larger lessons about workers, their practices, and the role of their labors in relation to politics, economics, and culture. It is this connection, between the micro contexts and the macro forces, which illuminates the social implications in an otherwise narrow case study and modifies the grand claims that have become commonplace regarding the role of media in society." (p. 15)

This angle of looking at the interplay between micro and macro processes ties in with understanding workers in the media industries as having *circumscribed agency* (Havens & Lotz, 2017).[20] This view regards people who work in commercial media industries as…

> "… agents with some degree of autonomy, even though their autonomy is delimited by a range of forces including the cultures from which they come, the conventions of the media in which they work, and the priorities of their organizations and supervisors" (p. 11).

The approach thus defies sweeping statements about how media industries work, but rather accounts for the aforementioned variation within and between different cultural industries and sub-sectors. It is connected to the level between micro and macro, as its purpose is to explore where the two levels meet—and, as such, where tensions occur between greater structures and individual attitudes. Likewise, Hanne Bruun (2016) regards a possible approach to production analysis—whose aim it is to "understand the inner workings of the media" (p. 135)—to consider "the relationship between human agency and structure as the basic empirical questions to be highlighted" (p. 136). As I will show throughout this thesis, in free-to-play game production, indeed a complex mix of community and social norms, genre conventions, company policies, best practices, as well as personal preferences and views guide the practices and moral considerations of freemium game developers.

3.4 Production logics

In order to be able to understand the broader context in which free-to-play games are created and to embed the empirical findings, I will draw from a more macro-oriented approach, namely the notion of *production logics,* which emerged in cultural industries research and was adapted for the games industry by Kerr (2017). As touched upon in the former chapter, production logics are one way to divide the games industry into sub-sectors. What makes this concept especially suitable for my research interest is that, unlike the other classifications I discussed in the previous chapter (like types of games, target audiences, or technological

[20] Even though, as mentioned, Havens and Lotz are rather situated in the communication studies' side of media industry studies, the concept of circumscribed agency nevertheless connects well to the level in-between micro and macro as suggested by Mayer.

devices), it takes the industry/production as its entry point, which is, as addressed above, a thus far underrepresented perspective.[21]

Production logics were introduced by Miège in 1989 and refer to "a relatively stable set of institutional forms and relationships created by the commodification and industrialization of culture" (Kerr, 2017, p. 66). Because it does not only focus on technology but also takes into account the cultural and industry aspects of media, the production logics approach enables to "explore the relationship between social institutions, workers, and markets, while also exploring the diversity of production approaches" (p. 64). As such, it is a useful analytical tool to understand production in the cultural industries. Applied to the games sector, production logics can help to "identify the key market and institutional characteristics structuring different types of games production" (p. 78), as well as the shifts that the digital games industry is going through.

Miège originally identified three dominant production logics in the cultural industries. The first one he designated *flow*, thereby adopting Raymond William's term used to describe broadcast television in its technological, commercial, as well as cultural aspects. The term emerged from television's continual stream of words and images to a receiver, "constructed around a notion of varied messages to a general public" (Kline, Dyer-Witheford, and De Peuter, 2003, p. 48). From a revenue perspective, the flow logic revolves around "the program schedule in television, maintaining audience loyalty to a channel and providing this information to advertisers" (Kerr, 2017, p. 67). The second production logic is called the "publishing logic", applying to book publishing, magazines, and partly to the music industry, "where traditionally consumers purchased one copy for personal use and the artist is compensated through a royalty system" (p. 66). Then, the third logic identified by Miège is the "press logic", referring to the "mass and rapid production of a highly ephemeral product, like daily newspapers and semi-regular magazines with the employment of an industrial workforce" (p. 66). In 1997, Lacroix and Tremblay added the "club logic" to these three production logics, under which "content access is 'metered' and users are regularly billed" for a catalog of content, shifting power toward the distributor (Kerr, 2017, p. 69). In 2011, Miège suggested adding the "neo-club logic", which is associated with televisual and Internet access and operates between flow and publishing, as well as the online portal logic, in an attempt to

[21] As will become clear in this section, a division of the sector along revenue models partly overlaps with the production logics approach.

capture the aforementioned digitization of the cultural industries, that is, "the growing influence of the telecoms, information and communication sectors in the broader cultural industries" (p. 69).

Yet, as Kerr rightfully notes, the production logics as defined by these authors do not suffice to describe current cultural industries, because, among other things, the simple connection between one industry and one production logic no longer holds true. Nowadays, one industry can be associated with various logics—as I also addressed in the former chapter by sketching the various actors that can (but not necessarily do) play a role in a game's value chain. Moreover, previous attempts to update and complement Miège's original production logics have hardly paid attention to digital games. Therefore, Kerr seeks to identify the different production logics that exist within the contemporary games industry. The production logics Kerr identifies tie in, where possible, with the existing ones—as there are naturally similarities between the games industry and other cultural industries—but she also pinpoints production logics that are unique to the games industry. This results in five distinct production logics: the *publishing, flow*, *club*, *performance*, and *platform* logic. An overview of Kerr's production logics is shown below in table 4 below.

In the early 2000s, the publishing logic, epitomized by AAA games that are sold as one-time copies and publishers as central brokers, as well as the flow logic, with subscription-based MMOs as typical example, as discussed in the former chapter, still dominated. But trends toward *games-as-a-service* (which will be elaborated in more detail in the next chapter) and "a growing integration with the Internet industry" (Kerr, 2017, p. 72) are important drivers for the shifts toward new, emerging production logics. Phenomena such as e-sports tournaments and YouTube streamers are subsumed under the performance logic, while the club logic incorporates streaming services that offer a library of games for a fixed, regular price, like Google Stadia, which is still a relatively new logic in the games sector.

One particular production logic, however, stands out, which Kerr (2017) elaborates in most detail: the platform logic.[22] This emergent, still stabilizing logic encompasses free-to-play

[22] Kerr refers in a footnote to the difficulties in naming this logic, mainly caused by the challenge to choose a term that was specific enough for games but would also be understood outside the games industry. In the end, despite its slightly different meaning in different areas, the term platform was chosen because it "best captured the increasing interpenetration of digital distribution, internet-based intermediaries, mobile and online free-to-play games, advertising, player generated data, and players in this new logic. Free-to-play social network and mobile games in particular are developed with reference to, and sometimes to specifically exploit, other internet services. Platform captures for me the influence social media, online advertising networks and user generated data are having on the work that game developers do, the content they create and the

games and constitutes the "fastest growing market segment in the industry" (p. 74). The platform logic, so Kerr argues, is marked by the unprecedented combination of direct revenues gained through microtransactions and indirect revenues enabled by the large-scale collection and analysis of player data. These indirect revenues include both targeted advertising,[23] but also the typically large non-paying player base in free-to-play games, who provide metrics to optimize the game and spread its visibility (Nieborg, 2017). The latter is particularly important, as the central brokers in this production logic are the app stores (as also elaborated in the former chapter), in which the skyrocketing number of apps available make it necessary to invest in discoverability. And even though the app stores collect a considerable share (up to 30%) of the transaction revenues made, they typically do not directly invest in the product, neither do they play a direct role in content development. Their submission and approval processes, however, undoubtedly play an indirect role (as touched upon in the previous chapter). As a result, self-publishing game developers within the platform logic must be able to "develop, promote, market and support their games after launch" (Kerr, 2017, p. 75). The creative professions central to this logic are "designers, software engineers and data analysts" and production revolves around "Internet-enabled user acquisition, user retention and monetization enabled by networked data flows" (p. 74).[24]

I will use the platform logic, as it encompasses free-to-play games, as a starting point to zoom in on the lived experiences of game developers. As Kerr (2017) notes, further studies are needed to grasp this production logic in all its facets; this thesis constitutes one such study. As such, in the next chapter, I will elaborate on the data-driven nature of free-to-play game development and the ramifications of the games-as-a-service paradigm as well as the integration of monetization mechanisms in the free-to-play development process. In chapter 5 I will look into the typical roles in this production logic, with a focus on the monetization-related expertise. In the Discussion, I will return the overall concept of production logics and the way Kerr (2017) has described the platform logic, and reflect on its accuracy and

potential revenues they can earn. Platform is a useful shorthand to signal these issues. More studies of free-to-play games and their characteristics will help us to understand this logic better." (Kerr, 2017, p. 105)

[23] As addressed in the former chapter, the focus of this thesis is on the connection between game design and monetization, which is most profound in free-to-play monetization mechanisms, that is, in the form of virtual goods or other additions/advantages to the game. As such, advertisements, although they are a common revenue model in free game apps and sometimes combined with free-to-play monetization mechanisms, are not the focal point in this thesis. In the Discussion, I will further elaborate on this difference.

[24] Just as other characteristics Kerr ascribes to the platform logic, the questions of what activities and which professional profiles are involved in the free-to-play development process will be addressed in more detail in chapters 4, 5, and 6.

usefulness to understand the practices in free-to-play game development, by answering the question: What can the macro-forces tell us about the micro-context of game development in the free-to-play realm?

Characteristics	Publishing	Club	Flow	Platform	Performance
General	One-off cultural commodities, impulse purchases	Continuous flow of service and a catalogue of content	Continuous flow of content, consumer loyalty to service or series	Continuous flow of user data, prof. and amateur created content, content personalisation and adaptation	Regular live events
Central broker	Publishers, platforms/ publishers	Programmer	Publisher	Platform intermediaries/ developers/ publishers	Producer
Economic chain/ network	Project by project basis, irregular work, royalties and copyright	Project by project basis, irregular work, royalties and copyright	Quasi-industrial organisation, regular work, wage labour but some copyright	Project by project basis Programmers, engineers, data analysts, customer relations and support Wage and feeelance labour but also amateurs	Project by project basis, irregular work
Creative professions	Authors, composers, directors, artists, and specialised technicians		Designers, artists, programmers, network specialists, community management and specialised technicians	Designers, artists, engineers, network support, marketing, data analysts, community managers, game designers, players	Players, producers, technicians
Sales & revenues	Direct Product by product Premium	Direct, subscription or pay per view Market share	Advertising, subscriptions	Indirect – freemium advertising, data. Some direct – DLC, micro-transactions	Direct fees and indirect, advertising and sponsorship
Market characteristics	Segmented mass market, catalogue	Niche market	Niche and mass	Niche, fragmented, personalised	Niche
Examples	Triple A and indie	Digital game services, e.g. EA's Origin Access	Subscription MMO, serialised game services	Free to play Social, mobile and MMO games, some video streaming services	E-sports, streamers online

Table 4: Kerr's (2017) principal logics of cultural production in the digital games industry (p. 77) (emphasis on platform logic mine).

3.5 Design research

Next to game production studies, there is a second research area I will draw from in this thesis. As elaborated above, game production studies acknowledges the diverse and heterogeneous nature of game production due to the many different constellations of hardware/technology, target groups, game genres, value chains, and revenue models (as also discussed in the previous chapter). In describing this diversity, pinpointing the implications of producing interactive, ludic systems expressed by software (cf. Juul, 2005; Van Roessel, 2008) is usually not the focal point of game production studies. Furthermore, even though there is an interest in production experiences and people—including the interplay and tensions between production sites and macro-forces—the specific activities in the development process (such as conceptualizing, playtesting, or the role of market research) as well as the temporal dimension (i.e., how are the phases chronologically ordered) are considered to a lesser extent.

Yet, to explore how the profound integration of gameplay and monetization plays out in this particular kind of interactive software, I am also interested in these kinds of activities. Therefore, I will pertain to another body of literature in addition to game production studies, which is design research. Academic accounts that focus on the development of games as software are typically situated in this field, which originated in technical universities in study lines like architecture, industrial design and product design. Design research generally aims at generating knowledge and insights about creative, mostly collaborative design processes in these various creative fields, which more recently also started to include software development. Research questions in this field typically address the various phases, mindsets and practical tools used in creative processes.

Authors that wrote seminal works in this area are Nigel Cross (e.g., *Designerly Ways of Knowing*, 2006), Donald Schön (e.g., *The Reflective Practitioner*, 1983), and Donald Norman (e.g., *The Design of Everyday Things*, 2013). Accordingly, design research on game development draws from such literature and is concerned with concepts like innovation in games (e.g., Tschang, 2003), design thinking in game development (e.g., Hrehovcsik, 2017; Hrehovcsik & Van Roessel, 2013), collaboration and team composition (e.g., Van Roessel & Van Mastrigt-Ide, 2011), and game design values (e.g., Chiapello, 2017 and Kultima & Sandovar, 2016, see also chapter 6). Just as in software development, popular handbooks about how to create games, for instance Tracy Fullerton's *Game Design Workshop* (2014), propagate agile development by means of short, iterative design cycles, which I will elaborate

more extensively in the next chapter. Studies in design research typically employ methods such as reflection on own work practices (which is why the distinction between academic studies and industry handbooks can be blurry), observations, and interviews.

To a certain extent, research interests between design research and game production studies (or media industry studies) overlap, for instance in the sense that both address questions of how media objects come into being and how, for instance, the role of individual creativity and agency in these processes can be understood. Yet, the fields gravitate toward different focal points. Whereas game production studies (with its ample referencing of scholars from the field of media industry studies, as shown above) treats games as media first and foremost, design research also accounts for games as software with more functional and instrumental qualities. Moreover, it also takes into consideration the temporal dimension of design, that is, what phases can be identified in a development process and how do they succeed each other. Therefore, this thesis draws from both these bodies of literature, meaning, it takes into consideration the production aspect of freemium games by including its typical activities and temporal dimension, but also common professional profiles and occupational roles, as well as the moral considerations at play in this type of production. It thereby sheds light both on the kind of work routines and daily practices that might be deemed mundane and often lack in game production studies, while simultaneously accounting for developers as creative professionals, who act in a particular role and might reason accordingly.

3.6 This thesis' twofold embeddedness

This twofold embeddedness in game production studies and game design is—to the best of my knowledge—unique, and particularly useful for free-to-play games. Even though there has always been a "contradiction between commodification and play" at the heart of the game industry (Kline et al., 2003, p. 57), this contradiction is amplified in free-to-play games due to their profound connection between design and monetization (as shown throughout the thesis). As such, the creative and economic dimensions of free-to-play games—or in Kline et al.'s (2003) words, the circuits of "culture" and "marketing" of the games' global marketplace—very closely approximate each other, to the extent that they almost overlap entirely. The widespread application of the freemium revenue model in other, more functional types of *software-as-a-service* further highlights this connection. That is, free-to-

play games can be considered both media entertainment goods and pieces of software that can be approached in a more instrumental way (which, as I will show in the next chapter, manifests in free-to-play games' development processes). In addition, the vehement debates the revenue model has triggered, as described in the former chapter, illustrate how free-to-play monetization magnifies contested notions of acceptable and objectionable ways to integrate game design (i.e., play) and monetization mechanisms (i.e., commodification). As such, drawing from both game production studies (as situated in media industry studies and, partly, production studies) and software studies/design research proves especially fruitful for analyzing the creation of free-to-play games.

The perspectives in the following chapters of this thesis reflect this twofold embeddedness: In chapter 4, on the development processes of free-to-play games, (game) design literature about the nature of the design process in terms of iterations, phases and practices of market research and playtesting provides the main academic foundation. Then, chapter 5—addressing the roles and professional profiles in free-to-play development—includes both literature on the different disciplines in game design and on the concept of role and occupational communities found in game production studies. Chapter 6, on the moral considerations of free-to-play game professionals, primarily taps into production studies, particularly the concept of the *moral economy of cultural work*, while at the same time addressing sources on *values in game design*.

As such, each chapter has its own theoretical framework dependent on its particular focal point. These different lenses—while deploying consistent level of analysis, as described below—then yield a comprehensive image of free-to-play games production, in which various aspects and their interconnectedness are addressed.

3.7 Conclusion

In sum, whereas the reception of free-to-play games and the games themselves have been analyzed extensively by various game scholars, the production aspect of free-to-play games has to date not been addressed with similar rigor. This study contributes to filling this research gap. By focusing on "making games", the study is part of the emerging field of game production studies, which is—unlike its name would suggest—a field more comparable to media industry studies than the narrower area of production studies. As such, game production studies incorporates a wide variety of approaches and levels of analysis, but this

thesis focuses on a level in between the micro and the macro, that is, zooming in on the practices and experiences of free-to-play game developers, while contextualizing these in the broader structures that surround them. For this contextualization, a useful concept is that of production logics, which was originally developed in media industry studies and then specified and extended for the game industry by Kerr (2017). Kerr distinguishes between five production logics in the games sector and subsumes free-to-play games under the platform logic. Key aspects of this logic are the app stores as central brokers and the role of user metrics through the whole development cycle.

Additionally, in order to do justice to digital games' twofold nature of both ludic systems—expressed in software—and audiovisual media with the ability to portray fictional worlds, this thesis also draws from design research. This angle also encompasses the temporal dimension of game production, that is, the different phases of the development process and the typical activities associated with those phases. Since, to the best of my knowledge, these two approaches have hitherto not been combined in one study that analyzes game production, this thesis contributes in a unique way to understanding free-to-play game development in particular, and the connection between monetary and creative considerations more generally.

Thus, this thesis heeds Elizabeth Evans' (2015) call to game studies to "turn its attention to the impact of commercial sensibilities on game production and design and fully interrogate what freemium games can reveal about the nature of gameplay and the games industry" (p. 16). All in all, the contribution of the thesis is twofold: It firstly helps reveal the dynamics and complex relationships between monetary and creative considerations in free-to-play game development, and, secondly, it contributes to the emerging field of game production studies and, as such, helps to fill the gap of research into the production aspect of games. The following chapters 4, 5, and 6, in which I will present the empirical data collected for this study through three distinct analytic lenses, will each have a more specific theoretical embedding connected to these lenses: iterative design processes, creative roles as a fluid concept, and the moral economy of cultural work respectively.

4
Making the mechanics monetizable: The development process of free-to-play games

4.1 Introduction

> "The Free-to-play (F2P) business model has changed the video games industry completely and irrevocably. In a matter of years F2P has created legions of new and successful game developers who have blindsided the old guard, leaving them scrambling and faltering as they struggle to adapt" (Luton, 2013, p. *xvi*)

In the introductory words of his book *Free2Play. Making Money from Games You Give Away*, consultant Will Luton (2013) leaves no doubt about the business model of his preference—which in his view transformed the way games are developed. Luton's sharp words about the "old guard" who are "blindsided" and left "scrambling and faltering" breathe a tone of triumph. At the same time, they hint at how free-to-play's controversial status has made him feel obliged to justify writing an entire book on the monetization model. In the book's foreword, it is moreover stressed that free-to-play has "proven its viability" but is "certainly more complex than a demo or an upfront paid model and needs to be considered from the start of designing your game" (p. *ix*).[25]

Likewise, at the 2012 Northern Game Summit in Kajaani, Finland, social game developer and academic Aki Järvinen addressed the profound differences between free-to-play game design and other kinds of game design. In his presentation titled "Free to Play, Tricky to Design", Järvinen pointed at the 'trickiness' of designing monetization and distinguishes between core and surface free-to-play game design, arguing that the former might be harder to design but has more potential in the end, as a more meaningful integration of monetization makes for sustainably successful games. He concluded by designating free-to-play development "a design lens of its own", a phrase that refers to Jesse Schell's (2008) widely used game design handbook *The Art of Game Design: A Book of Lenses*. In a similar vein, Matthew Chew (2016) acknowledges that free-to-play "is not merely a payment method or monetization model, its implementation can trigger profound transformations in game

[25] The foreword is written by Ian Marsh.

development processes" (p. 227) and freemium monetization mechanisms "must be coordinated with a very specific set of practices in all aspects of game production" (p. 231).

Thus, the free-to-play model has not only changed games and the way they are played, but it has a major impact on the way games are created as well. For instance, the prerequisite of 'monetizability' makes it necessary for all features to fit into the monetizable "core game loop" (Järvinen, 2012) and as such, the monetization model needs to be considered right from the start. Another implication may be that the data-driven nature of free-to-play game development enables design decisions to be based on player metrics rather than the designer's intuition, which leaves arguably less space for creativity in the design process. Also, regarding multiplayer games, offering players a level playing field becomes highly challenging when one has to account for paying as well as non-paying players.[26] In other words, creating free-to-play games differs from creating games with other business models that are less interwoven with the game design.

As discussed in the previous chapter, Aphra Kerr (2017) addresses these differences and distinguishes between five main production logics in the global digital games industry, which describe five different "relatively stable sets of institutional relationships generated by the commodification of cultural production" (p. 66). These logics are only partly defined by technology, but also by other factors such as business models and conventions. The partly still stabilizing platform logic, which encompasses the production of free-to-play games is characterized by the continuous flow of user data and the role of indirect revenues by, for instance, microtransactions, which in the case of mobile games are facilitated by the app stores, which serve as the central brokers along with commercial social networks. (Kerr, 2017).

In this chapter I will take a closer look at the lived experiences and professional routines within this production logic from a design research perspective. That is, I will focus on the development process of free-to-play games, including the different phases and their typical activities, and thereby unpack the complex interplay between game design and monetization in these processes. As such, the central issue I will address is *how and when the free-to-play monetization model intersects with the development process.* This includes sub questions such as: How and when are game mechanics connected to monetization techniques? How is monetization integrated in the design process and user test practices?

[26] See chapter 6 for the moral considerations of developers regarding multiplayer free-to-play games and creating a level playing field for all players.

What role do user data and metrics play, that is, how is the player data collected, processed and fed back to improve the game design as well as the monetization? Based on 18 interviews with free-to-play developers, I will show that the profound integration of game design and monetization in free-to-play games manifests through all phases of the development process, with different emphases in different stages.

As explained in the former chapter, this thesis analyzes free-to-play game development from two main perspectives and can correspondingly be embedded in two research strands. Firstly, my research contributes to game production studies by addressing free-to-play game production with respect to the people working in it, including their roles and responsibilities as creative professionals, as well as their moral considerations, which I will address in chapter 5 and 6 respectively. Secondly, I approach the phenomenon from a design research perspective, in which the different phases and activities of collaborative creative processes—such as game or software development—are the object of analysis. The current chapter mainly draws from and contributes to this field of study. By including the process component instead of only accounting for creative professionals and their working conditions, as is a common focus in game production studies, a more comprehensive picture emerges. This picture particularly considers the routine-like practices and materiality of free-to-play game development, and, more generally, the interplay of creative and monetary considerations in media production processes.

In the following, I will firstly sketch the chapter's backdrop by drawing from literature on game development processes, which generally describes game development as iterative processes, that is, processes consisting of several design cycles with multiple user testings. Due to the close connection between free-to-play development and data-driven game design as well as the games-as-a-service model, I will address these two phenomena in separate sections. Then, after elaborating on how the empirical sources used in this chapter were collected and analyzed, I will present the results along three main phases of the game production process: the concept (or pre-production) phase, the production phase and soft launch.

4.2 Game development as an iterative process

Due to games' interactive nature—among other things—game production is hardly ever a linear and pre-defined process, of which the exact course and outcome can be determined

upfront. Since game developers (mainly the designers and producers, on which I will elaborate more thoroughly in the next chapter) need to ensure that the game prompts the kind of interaction that was envisioned, multiple testings along the way are necessary, usually with the help of prototypes or other temporary representations of the final product. For instance, based on a study of 65 project reports, F. Ted Tschang (2005) found that "videogame development displays experiential processes similar to those used in other products which embody 'experiential' development processes, such as frequent milestones and testing, [and] multiple design iterations" (p. 103). In a similar vein, W. Paul Kohler (2012) identified ideation, decision making, execution, and iteration as the most important activities in the development process, which together he designates the "core creating mechanism" (p. 130) of game development.

The iterative nature of game development is not only identified in academic studies (e.g., Hrehovcsik, 2017; Kerr, 2017; Kohler 2012; O'Donnell, 2014; Tschang, 2005; Van Roessel & Van Mastrigt-Ide, 2011), but also repeated almost as a mantra by well-known game design handbooks (e.g., Fullerton, 2014; Salen & Zimmerman, 2003; Schell, 2008). Accordingly, the opposite of iterative design, that is, the so-called waterfall model, with its fixed chronological phases and defining all features before anything is materialized, is generally regarded an outdated approach to game development. For example, in his seminal handbook *The Art of Game Design,* Schell (2008) writes about waterfall development: "Managers found it incredibly appealing, but programmers knew it to be absurd—software is simply too complex for such a linear process to ever work" (p. 81). Likewise, Damian Hodgson and Louise Briand (2013) found that "the nature of work in game development indeed obstructs many traditional modes of control" (p. 322). Therefore, many game studios have instead adopted more agile methods from software development. Particularly widespread is an agile technique called "scrum",[27] which entails short development sprints and brief but frequent updates among the team (O'Donnell, 2014; Kerr, 2017).

[27] Scrum is short for scrummage, a term that stems from rugby, where it points at a particular player arrangement in which "the forwards of each side come together in a tight formation and struggle to gain possession of the ball using their feet when it is tossed in among them" (Merriam Webster). Fullerton (2014) describes the scrum development approach as follows: "Scrum organizes teams into small crossfunctional teams. These teams prioritize their work each day and embrace iteration—especially short turnaround iterations. Short iteration and review force strong communication and build bonds with team members. Scrum development is especially good for game environments because the ability to change fluidly is important for solving hard game design problems" (pp. 405-406).

Iterative game development thus means that the process has multiple design cycles, each of which ends with an evaluation of the current prototype[28]—which in turn serves as the input for the next design cycle. This also includes adjusting or discarding former ideas and decisions if they do not elicit the anticipated interaction patterns, meaning an open and flexible attitude is required from everyone involved, which is sometimes expressed as a required willingness to "kill your darlings" (e.g., Deetman, 2015; Jori, 2016).

These recurring evaluations are typically conducted in the form of so-called *playtests*, which preferably take place frequently and from early stages of the process. During these playtests, users—be it internal employees or external test panels—interact with the prototype to "ensure that the game meets the target audience's concept of fun" (Kohler, 2012, p. 38). As such, according to Tracy Fullerton (2014), playtesting is "the single most important activity a designer engages in" (p. 271). Methods for planning, executing and evaluating playtests are again inspired by user testing in software development (O'Donnell, 2014). Along the production process, emphases of the different playtests differ, that is, some might serve to test the core mechanic and whether this is fun, while others aim at learning more about the fine-tuning or dynamics between different rules or the interface design. Ideally the testing will become more focused as the production process proceeds, meaning the aims of the tests will increasingly concern a game's details and balancing.

Playtesting is typically to be conducted in a qualitative rather than quantitative manner, that is, by observing and/or interviewing small numbers of players in order to gather rich feedback (e.g., Fullerton, 2014; Schell, 2008). However, with the advent of data collection practices and corresponding data-driven design (e.g., Whitson, 2012; Seufert, 2014), labor-intensive qualitative playtesting might lose its prominent role as a best practice in iterative game design, which I will address more thoroughly in the findings section below.

[28] Note that the prototype need not be digital. Paper prototyping, especially in early stages of the design process, is a popular tool, as it has a low entry level and forces to get to the essence of the game mechanic to be tested.

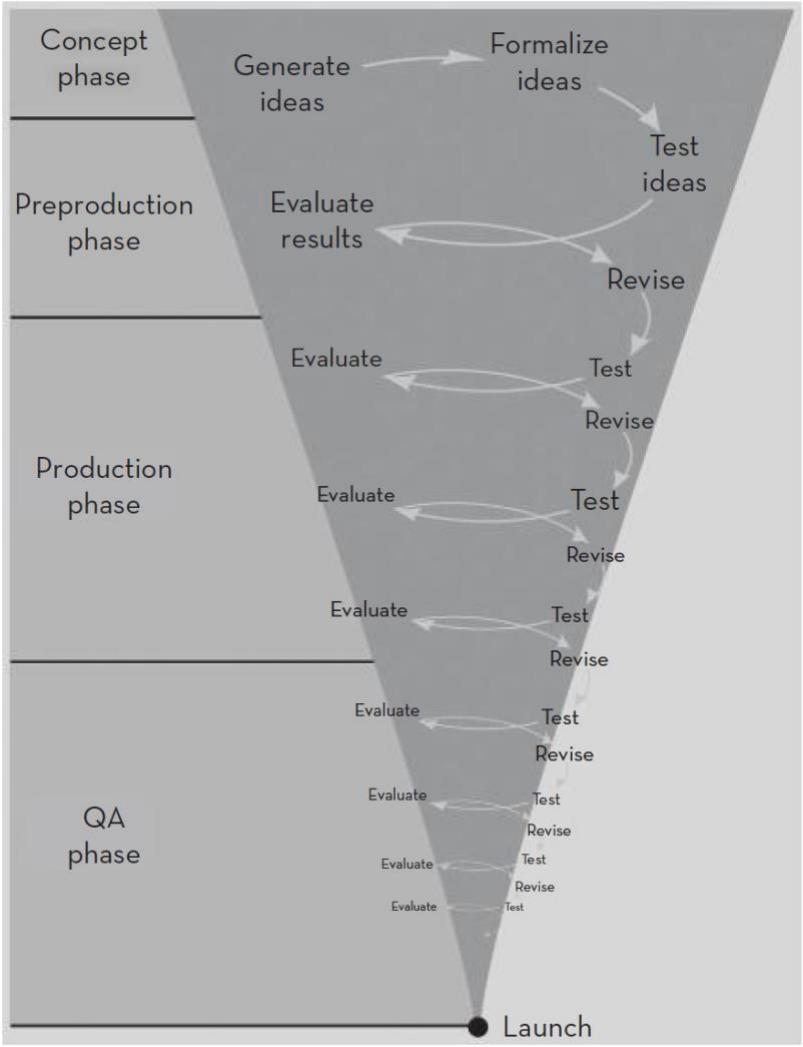

Figure 4: A schematic representation of the much-heralded iterative design process with multiple testing (Fullerton, 2014, p. 272).

4.2.1 Development phases and differences between sub-sectors

Yet, even though the (ideal) game development process is iterative and composed of recurring cycles, it has linear elements as well, as it is typically divided in separate chronological phases: the concept or pre-production phase, the production phase and post-production or QA[29] (e.g., Hrehovcsik, 2017; Kohler, 2012; O'Donnell, 2014; Kerr, 2017). The exact number of phases mentioned in academic accounts and industry handbooks differs, but typically ranges from three to five.[30] The first phase normally consists of designing the basics of the game, including its core game mechanics, and results in a first playable prototype that demonstrates the essential game design principles—that is, the abovementioned core loop. In the second phase,

[29] QA stands for Quality Assurance.
[30] For instance, the first stage might be split up into two phases, with the concept phase prior to the pre-production phase, as in Fullerton's (2014) visualization.

or production phase, the game design is fleshed out and built in all its facets, including the audiovisual elements. Then, the third and final phase is mainly about the fine-tuning and quality assurance, eliminating bugs and polishing the game. Especially this last phase of quality assurance, as I will elaborate below, is drastically changing in the light of data-driven design and games-as-a-service.

This notion of linear, distinct phases in the development process is partly at odds with purely iterative design. For instance, as Kohler (2012) points out, there may be "approval gates" between the phases, that is, moments at which the project must obtain formal approvals before moving to the next stage (p. 47). This practice defies the possibility of revising design elements later in the process. In addition, even though Kohler emphasizes the iterative nature of game development throughout his dissertation, he describes the stages of the game development process as rather rigid—thus resembling waterfall rather than agile development:

> "First, there is the Pre-Production during which formal planning is completed for the entire development. Next is the Production in which assets (art and programming code) of the game are produced. The third is Post-Production where any remaining creative problems are resolved – the game undergoes final polishing, and all bugs (errors) are eliminated." (pp. 47-48)

Kohler acknowledges this discrepancy in a footnote, pointing at the fact that his case study is situated in the more traditional *AAA* sub-sector, with typical big budgets and large teams, rather than smaller indie or casual games projects.[31] As such, flexibility to discard earlier decisions and 'start from scratch' is limited.

Kerr (2017) similarly describes differences between sub-sectors in terms of the extent to which the production process is agile, specifically highlighting social and browser game development as more iterative:

> "Companies designing social and browser games with interdisciplinary teams working on short projects [...] incorporate explicit and implicit player feedback in the production stage. They prototype rapidly, receive feedback and launch titles that they can monetize and monitor [...]. These small agile companies often talk about 'pivoting' between projects and markets. Their approach to game development is iterative and they test out ideas in near-to-market or market conditions." (p. 90)

[31]For an overview of the different sub-sectors, and the different logics along which the sector can be divided into sub-sectors, see the chapter 2.

Based on field work in a Canadian game studio, Hodgson and Briand (2013) also identified frictions between the promises of agile development and its execution in practice: "Even 'enlightened' 'Agile' project teams and management represent, it is argued, a set of management tools which are based on 'softer' monitoring mechanisms, certainly, but which nonetheless sustain control in a hybrid form" (p. 27).

Thus, even though waterfall approaches are not considered good practice in game development, iterative game development might still have some characteristics of it, as one cannot fully avoid dividing the process in distinct phases in order to pre-define moments for managing and controlling the process. Moreover, variations between different sub-sectors of the games industry exist, as smaller teams and budgets enable agile development better than cumbersome big projects.

So, what does that mean in the case of free-to-play game development? As free-to-play has emerged mainly within the sub-sectors of social and browser games (as I elaborated in the previous chapter) and Kerr (2017) also subsumes it under the same production logic, that is, the platform logic, free-to-play development likely shares these characteristics of short projects with multiple iteration and testing. However, as explained in chapter 2, free-to-play game developers are not necessarily small studios with small budgets. In Germany for instance, studios developing free-to-play games such as Wooga, InnoGames, and GoodGame Studios, are among the country's largest game companies in terms of employee numbers (Gameswirtschaft, 2021). As the free-to-play game developers I interviewed for this thesis worked at both smaller and larger studios, one of the issues I will address in the empirical findings is the extent to which the free-to-play development process actually is and can be iterative and agile.

4.2.2 The convergence kludge or the messy reality of game development

What makes unpacking the game development process particularly complicated is their multidisciplinary nature. That is, games are typically made by people of varying backgrounds (O'Donnell, 2009; Whitson, Simon, and Parker, 2021), and teams are composed of at least a game artist, a game designer, a programmer and often a producer (e.g., Tschang, 2005; Kohler 2012; Van Roessel & Van Mastrigt-Ide, 2011, for an overview of the different roles see also the next chapter).

Even though it is sometimes romantically claimed that game production is a process in which a natural 'flow' occurs, a suchlike inherent convergence between the differently educated people developing a game together does not seem realistic. Rather, game development is "a labor space where media producers work extensively to keep media technologies, digital encoded data in proprietary formats, and media organizations […] from flying apart into their 'component parts'" and therefore "the convergence kludge for user/producers is far more complex for those that make it their livelihood to work in this productive space" (O'Donnell, 2011, p. 282). Therefore, in these collaborative creative processes**,** communication and tuning between the different disciplines are key (Bulut, 2020).

In addition, representing a game development process in a clear and transparent way is not easy, especially in hindsight. Jennifer Whitson (2020) observed this 'messiness' of game development, and problematizes that the development process is often not depicted in a correct way. Due to external pressure on developers and academics, game development processes are typically sanitized and professionalized in game design handbooks and academic accounts, but also in the industry's own genre of so-called *postmortems*.[32] This skewed picture hampers a correct and neutral representation of the actual challenges of game production, which include—due to the distributed and multidisciplinary nature of game development—collaboration, coordination, conflict resolution, and learning to negotiate with technology (Whitson, 2020).

Thus, while academic as well as industry sources might give the impression of flexible, iterative development processes with smooth interdisciplinary collaboration, these are often simplified and idealized representations of the actual work of game professionals. The interviews conducted for this thesis indeed reflect a messier reality—as will become clear in the empirical section below. But before presenting these findings, I will first take a closer look at two significant and interconnected current developments in the games industry, which are interwoven with the free-to-play monetization model. The first is the increasingly data-driven nature of game production and media production in general and the second is the related phenomenon of games-as-a-service.

[32] Postmortem is the official term used in the games industry of written accounts of game developers that look back on a specific project and analyze what went well and what wrong. Postmortems are popular on industry blogs such as gamasutra.com.

4.2.3 Data-driven design

In recent years, the permanent connectedness of online and mobile games has enabled the large-scale collection of quantitative, real-time user data, which entails a major shift in the way games are developed. The heavy reliance on metrics for optimizing design in game production is designated data-driven design. These practices of user data collection are however not limited to games; they are observed all through the media industries (e.g., Holt & Perren, 2019).

Obviously, the trend does not go unnoticed by the games industry itself: A lively "shadow academy" (Caldwell, 2014) exists around the topic, which includes online discussions on blogs, handbooks such as *Game Analytics. Maximizing the Value of Player Data* (Seif El-Nasr, Drachen, and Canossa, 2013) as well as presentations and panel discussions at industry events (e.g., "Data Driven vs Design Driven" at Casual Connect Europe 2017 and "Data-driven or Data-Blinded" at the Game Developers Conference 2018).[33] Likewise, game (production) scholars discuss data-driven design in academic accounts (e.g., Alha, 2020; Chew, 2016; Kerr, 2017; Nieborg, 2017). As early as 2012, Whitson addressed the growing role of metrics in game development and argued:

> "Instead of visionaries guiding projects, reams of data are harnessed and used to point the way forward. Creativity is no longer rooted in individual developers, but is rather crowdsourced from massive player populations, leading to quantitative and thus 'objective' numbers that are used to drive game design." (p. 265)

Moreover, and especially relevant for the central topic of this thesis, a particularly profound connection exists between metrics-driven design and freemium business models (Kerr, 2017). This is not only the case for games but also more generally for other kinds of freemium software and digital services (as addressed in chapter 2). For instance, Eric Seufert (2014) claims that

> "analytics is the heart, the foundation, of the freemium model because analytics is the only means through which highly engaged users can be identified early and accommodated for. And analytics is the only means of determining how a freemium product can best be improved in order to enhance the experience for highly engaged users." (p. 30)

[33] Takahashi, 2017a; Greer, 2018.

In a similar vein, David Nieborg (2017) points out that in free-to-play games "every step of the 'funnel'—from player acquisition to player engagement, retention and potentially player monetization—can be tracked, analyzed and optimized and comes with an array of 'key performance indicators' (KPIs)." (p. 29). Due to the monetization model's structural imbalance between paying and non-paying players (that is, usually less than 10% of players will 'convert' into payers), free-to-play games have to attract large numbers of users and then find ways to identify and cater to those willing to spend money (Nieborg, 2017). Or, in Seufert's (2014) words, since freemium products cast an "extremely wide net [...] to attempt to catch everything", user data analytics is a necessary tool to help "hunting for a very rare fish" (p. 29).

The key performance indicators that are measured in free-to-play game development and other freemium products come in various forms, and—as part of the abovementioned industry vocabulary—a set of acronyms has developed that is used throughout the sector. Many KPIs concern monetization, such as ARPU (average revenue per user), LTV (life time value, i.e., the average net profit of a player), and CPA (cost per acquisition, indicating the costs to get one player to play the game) (Alha, 2020; Luton, 2013; Seufert, 2014). Somewhat more indirect but no less important metrics are retention, which indicates the part of players that keep coming back, that is, who keep playing a game over time (with its counterpart *churn*, designating the players who leave a game) and conversion rate, which signifies the percentage of players that spend any money or 'convert' into paying players.

Even though, as opposed to the production of other, non-interactive media such as film and television, game development has always been iterative and reliant on user tests, the current scale and availability of user data stands in stark contrast to the typically small-scale qualitative data gathered in traditional playtests. As such, data reliance has major implications for the ways in which games are created. Therefore, I will discuss this further in the findings section below, in which I will unpack how data-driven design plays out in the practices of free-to-play game developers and how metrics intersect with the microtransactions.

4.2.4 Games-as-a-service

Another phenomenon that typically accompanies free-to-play games is the games-as-a-service (GaaS) model. This model indicates that rather than being closed, stand-alone products, games are services that the player can use over time but does not own (BIU, 2016; Dubois & Weststar, 2021; Lin & Sun, 2011; Stenros & Sotamaa, 2009). This transition is also

described as going from “box” product games into “live” games (Dubois & Weststar, 2021, p. 2). That games-as-a-service, data-driven design, and free-to-play monetization often go hand in hand is also observed by Kerr (2017), who points this out in the abovementioned description of the platform production logic—with its characteristics of a continuous flow of user data and indirect revenues by microtransactions. Similarly, Joost van Dreunen (2011) describes the production process of games with a revenue model of “virtual items” (i.e., free-to-play games) as allowing for “regular updates, inventory changes, and even seasonal specials and sales events” (p. 9).

As such, under the GaaS model, “studios indeterminately support and periodically release content incrementally for existing games instead of developing new games or stand-alone sequels” (Dubois & Weststar, 2021, p. 2), which means these games can be adjusted, updated, and complemented while already available to their players. In turn, by playing—that is, using the service—players provide data on whose basis such adjustments can be made. Not surprisingly, games-as-a-service typically monetize through subscriptions and microtransactions rather than by one-time purchases (as two of five main revenue models in games, which I presented in chapter 2). “Servitization”, as Louis-Etienne Dubois & and Johanna Weststar (2021) name it, is again a trend that is not limited solely to the games market. For instance, audiovisual media are increasingly distributed and commercialized through streaming services (Holt & Perren, 2019), software is offered as cloud service (Seufert, 2014), which renders the ownership of software obsolete (Kaldrack & Leeker, 2015), and magazines are adopting a service logic as a reaction to shrinking customer numbers (Viljakainen & Toivonen, 2014).

As with data-driven design, the GaaS paradigm does not only have implications for how games are played, for instance in the sense that players are turned into consumers (Lin & Sun, 2011), but also for the way they are created, that is, for their development processes. Similar to the abovementioned practices of identifying engaged users in data-driven design, Christopher Paul (2020) notes that “switching to seeing the game as a service alters what the game is and how it is designed, pushing developers to try to find a large audience and then give a handful of players avenues for substantial investment in the game” (p. 20).

Most notable is that, instead of being a process that ends at game launch, the development of games-as-a-service continues after the game’s first release, resulting in various “post-launch activities, during which new content development and player retention

and feedback operations overlap" (Dubois & Weststar, 2021, p. 3). Such operations include game optimization, support, and community management and accordingly spur new roles in the area of "live ops" (see chapter 5). In addition, in order to develop new content for the game, the development process essentially starts all over again. As such, releasing the game is a beginning as much as an end. Related to user data collection practices as described above, the GaaS model arguably turns the kind of work in game development from creating "'inside-out' creative masterpieces" to "'outside-in' development driven by players" (p. 4). The adjustments made when the game is live concern game content and game mechanics, but also to a great extent monetization—especially its fine-tuning and balancing. I will address this more thoroughly in the light of the empirical findings below.

After having sketched the game development process as a messy, hard-to-grasp, iterative and cyclic process, with linear characteristics for the sake of manageability, and having shed light on two trends in the games sector that are connected to the free-to-play, that is, data-driven design and games-as-a-service, the remainder of this chapter will be concerned with the ramifications this has for free-to-play development. In the method section I will firstly elaborate on how the empirical findings for the chapter were gathered and analyzed, and then I will address its central question, that is: *Where and how does the monetization intersect with the development process?*

4.3 Method

18 semi-structured interviews, conducted within two interview studies from 2015 and 2017 respectively, serve as the empirical basis for this chapter. The 2015 interviews were originally carried out for a project into imitation in the German games sector (see Van Roessel & Katzenbach, 2020), and therefore I conducted a secondary analysis in light of the current research interest. The study involved 9 interviews with German free-to-play game practitioners,[34] working at large browser and mobile game developers (with 200 to 1000 employees) and covered the core disciplines of game design (4), game art (1), programming (2), one producer, as well as one researcher (see the next chapter for an extensive overview of the different roles in game production). Two of the interviewees were female; seven were male. Each interview took approximately 90 minutes, of which one part was dedicated to

[34] Among the total of 17 interviewees in the 2015 study were also eight indie developers who were not concerned with freemium games, who are accordingly left out of this analysis; hence the number of 9 interviews analyzed here.

monetization models and free-to-play in particular and the way the monetization model affected the interviewees' work practices. In addition to the direct questions about the monetization model, interviewees also mentioned the issue at other points in the interviews, e.g., when being asked about major trends in the games industry. These sections were also coded with the 'monetization model' code and further analyzed in a similar way. These statements are correspondingly more heterogeneous than the direct answers to the questions about business models.

The second study was fully dedicated to the development implications of the free-to-play model, and therefore it provides the main empirical material for this chapter. The study consisted of nine semi-structured interviews with German mobile free-to-play game developers conducted in 2017, which too lasted around 90 minutes. The self-reported disciplines and role descriptions of the interviewees were game designer (2), producer (2), product lead, head of games, studio game design director, freelance monetization expert/consultant, and creative director (of a small studio). The interviewees came from six different studios, all exclusively developing free-to-play games, and company sizes ranged from less than ten to over a thousand employees. As in the 2015 study, two interviewees were female, seven male. Again, the interviewees were mostly recruited at an industry event, in this case Casual Connect 2017, which took place in Berlin in February 2017.

The topics addressed included the game professionals' work routines and the organization of the studio's design processes, that is, typical development phases and milestones, and how monetization considerations affected their design choices and work practices. One project they were working on at the time of the interview served as the focal point of the conversation, however, interviewees also elaborated on past projects and other relevant experiences.

Both studies followed an approach of "exclusive informants", which provides insight into the terms of production of media products while acknowledging that "these media products are created within an organizational framework and under the influence of social forces such as technology, economics and cultural politics" (Bruun, 2016, p. 134). All the interviews were transcribed and thematically coded with the qualitative analysis software MaxQDA. Interviewees whose anonymized quotes start with an A refer to those interviewed in 2015 (INTA11-INTA19), whereas interviewees starting with a B were part of the 2017 study (INTB1-INTB9). Appendix A provides an overview of all interviewees.

4.4 Concept phase

In line with the general literature and industry discourse as discussed above, the interviews reflected that the free-to-play development process was indeed an iterative process that contained roughly three separate phases: The first phase was generally labeled with terms such as ideation phase, concept phase, and pre-production,[35] the second one was called production phase, and the third one, in which some version of the game would be live, was called live-ops, soft launch or, by one interviewee, AB-testing (INTB1, male, 20s). The findings are structured correspondingly, and the meaning and implications of the terms will be addressed in-depth in the according sections. However, the interviewees confirmed that—resonating with Dubois and Weststar's (2021) observations—in the GaaS model, phases are far from clear-cut but rather "flow into each other" (INTB9, female, 30s).[36] This especially becomes clear in the final section on soft launch, where the lines between fine-tuning and introducing new features increasingly blur.

In general, the interviews showed that monetization plays an important role all through the free-to-play development process. The decision on creating a game with a free-to-play business model is usually predetermined rather than something that is decided along the production process, as "tagging on" the monetization to the game design in a later phase is regarded difficult and suboptimal. As such, considerations regarding the monetization permeate all phases of the development process, from initial conceptualizing and market research to the release of a game and beyond. In the following, I will address the implications of integrating monetization in the game along the different phases of the development process as discussed in the literature overview above. In each phase I will focus on aspects that are particularly relevant to the free-to-play model.

4.4.1 Free-to-play as a given upfront

As mentioned in the former section, rather than something that is decided along the development process, the free-to-play model is typically a given before a new project or game feature starts. Especially in the case of new game features in games-as-a-service that were

[35] One interviewee, INTB5 (female, 40s), distinguished between vision/ideation and pre-production.
[36] If they were ever clearly distinguishable in the first place, due to game development's 'messy reality'.

already live, free-to-play was fixed and not up for debate.[37] The interviewees accordingly indicated that the monetization model was therefore an important design factor to take into consideration from the beginning. For example, the head of games of a small studio noted that in his free-to-play game project, the monetization:

> "… was one of the first things in the concept, because the requirement of the game is that the return of investment is positive. So it's totally necessary that it has a good monetization that fits to our target audience" (INTB3, male, 30s)

Likewise, a game designer in a large studio explained:

> "When we come up with some monetization concepts it has to be free-to-play. That's one of our rules that we have here, if we develop a game. There was a time where we considered paid apps, but our head of social and mobile department said (no we won't make) paid apps. We stick to free-to-play games-as-a-service so that we can have them over a much much longer period and not just putting it out there, get paid and make the next game." (INTA16, male, 30s)

Thus, this studio considered free-to-play a more sustainable, efficient business model and the upfront decision for it directly had implications in the way new projects were conceptualized. Similarly, a level designer of a large mobile studio explained how the monetization was heavily intertwined with the overall game, which made it a key variable from the onset:

> Q: If you look at this whole [game development] process, where does the monetization come in?
>
> "A: at birth. [...] Most of the time, it's at concept, and if not, it should come really quickly after concept. It's very rare that something that we do hasn't got a direct impact on monetization, so it could be a direct or indirect, impact [on] the monetization. But in the end, everything does, right? [...] Usually it's very helpful in a company like [name of the company] to be able to explain this and articulate it already at the concepting phase." (INTB1, male, 20s)

This necessity to integrate the monetization as early as possible also means that integrating the monetization only at a later phase might lead to poor game design due to a weak

[37] As explained above, initiating a new game feature in a game that runs with the GaaS model effectively means starting a new design process, as also echoed by some of the interviewees. For example, a game designer noted: "A feature is sort of like a small game, like each time, especially in a company like [name of the studio], such a big team and relatively big budgets, making a new feature is almost equivalent to making a new game" (INTB1, male, 20s).

connection between gameplay and monetization. In other words, the free-to-play revenue model should not be added when the production process has started, as the monetization consultant explained:

> "If you decide it to be free-to-play, the game has to be designed differently. If you decide to be premium, it has to be designed differently. Changing the business model in the middle usually means a catastrophe for the game. It's really rare that you can actually do this. You can change a free-to-play game to premium easier than the other way around. But it's a dangerous thing to do. I wouldn't recommend it to anyone, but it happened." (INTB8, male, 50s)

Therefore, the interviewee suggested that he as an external monetization specialist be "incorporated from the beginning" so that he can "push the product to the right direction so that it monetizes well and is actually fun to play" (INTB8, male, 50s).

So, in order to harmonize all heterogeneous parts of free-to-play games and prevent them from becoming a "convergence kludge" (O'Donnell, 2009), the interviewees considered it useful to have the choice for the monetization set from the start.

4.4.2 Making the core game mechanics monetizable

Subsequently, one of the first steps in a game development process is coming up with a game's core mechanics, a task that is usually performed by the (lead) game designer. As mentioned in the introduction, Järvinen emphasized as early as 2012 the importance of creating a monetizable core game loop, meaning the most basic activities that are performed again and again by a player—which form the heart of the gameplay—should be integrated with the monetization model. This was echoed by the interviewees, who all noted that the free-to-play monetization model had to be thought along with the basic game design. As such, directly at conceptualizing, designers should think about which (known) monetization techniques, such as speeding up processes with instant energy refills, buying boosters, paying for cosmetics (i.e., altering appearances), etc. should be included.[38] For example, a producer of a large mobile studio noted that the monetization comes in "right at the ideation phase" (INTB2, male, 30s) and, similar to Järvinen's considerations, a studio game design director indicated that the monetization is…

[38] See chapter 2 for an overview of common monetization mechanisms. Moreover, in chapter 6, various monetization techniques are further discussed in the context of their moral implications.

> "… part of the brainstorming sessions. [...] We identify what the core mechanic is and then from the mechanics we figure out what is the game loop, what is the process that the player is currently doing in the game all the time, and then we analyze [...] the experience for all players as they're playing the game, what is the experience for the non-paying user, and then if we were to provide monetization [...]. So the game loop will usually describe three to four actions that the player will take repeatedly within the game, we analyze their game loop, that'd be like from step A to step B, are there monetization opportunities here." (INTB7, male, 30s)

Similarly, a game designer indicated, that "if you're making a free-to-play game, you have to find ways to encourage the player to spend money [...] that's tied into the game" (INTA15, male, 20s). He furthermore described the way new features in a live game were conceptualized:

> "We usually initiate a feature when we find that the game is either missing something or something is not working super well. So we'll have an overall design, we want to make this game, we want it to work like this, okay, one example would be 'Well how do we make money on it?' So we have to develop a monetization feature (we will say) 'Well, we really like collectable stuff, so, what about cards?' And we'll figure out the pros and the cons." (INTA15, male, 20s)

Most interviewees regarded the direct integration of game design and monetization design the optimal way of designing free-to-play games, as it avoids an artificial and mostly unsuccessful "tagging on" (INTB7, male, 30s) of the monetization to the game design in a later stage. The studio game design director at a large developer particularly connected this to the value a game should have for both paying and non-paying players:

> "One of the things I like about [name of the studio] is that we think of both the design of the game and the design of the monetization at the same time. Because we equally want to create an experience that is entertaining for our players who are not paying, as well as provide a valuable set of options for the player that would convert to paying." (INTB7, male, 30s)

To this interviewee it was particularly important to make this vision clear, as later on in the interview he again stressed that "the monetization should be thought of as you're making the game", which he called his "design philosophy" (INTB7, male, 30s).

A producer in a small studio specified how the different kind of monetization techniques were thought along from the start and as such not up for discussion in later stages. Upon a question of how the team communicates about different monetization mechanisms, he answered:

> "Everybody understands gacha,[39] understands like waiting timers, cosmetics, but often those decisions are taken in a very very early stage in development, so it's rare that you talk about it that often because, it's normally such a fundamental decision that it's already taken, and of course you can discuss it, but I think you often more discuss the specifics of integration of the feature or whatever." (INTB6, male, 30s)

Interviewees also thought about the choice for the genre in the concept phase, as certain game genres were known to be more suited for the free-to-play model than others. This was due to the fact that the typical core mechanics accompanying those genres had proved more successful thanks to higher general conversion rates, that is, the parts of the players that spend money. A head of games of a small studio for instance spoke about a new "Tamagotchi-like" game that they were developing, where the monetization would be mainly done by selling premium virtual currency, because "every Tamagotchi game uses the virtual currency so we will use it too" (INTB3, male, 30s). The CEO of a small company likewise explained that their chosen genre of a "collectible card game" was accompanied by the typical monetization mechanism of "boosters" (INTB5, female, 40s). Similarly, a large company producer gave the hypothetical example of a crossword puzzle game that could be monetized by offering the player hints. This genre would however not be considered for one of his studio's games, as "it's been proven years over years that hints do not monetize" (INTB2, male, 30s). A small studio producer used a comparable example ("word games") and would ask himself during the conceptualization of a new game:

> "Is there some kind of uncertainty [...] that you can monetize? If you have a very logical system, it is often quite hard to monetize it as you see for instance with word games.[40] Word games are extremely logical systems and they are very hard to monetize. There is not any random factor or a kind of twitch-based gameplay, where a player can fail and then want to monetize again. Like *Candy Crush*, what they are monetizing on [i.e., successfully] is the randomness of the drops." (INTB6, male, 30s)

He thus emphasized the importance of some kind of chance and unpredictability to support monetization.

[39] Gacha is a specific chance-based monetization mechanic that resembles slot machines. See chapter 6 for an elaboration on the concept of gacha.

[40] He likely referred to games such as Wordfeud (Bertheussen IT), a free mobile game that was a digital version of board game Scrabble and was highly popular in 2011.

The monetization consultant spoke about his ideas on the monetizability of virtual goods that merely served a customization of the player's character, which he called monetizing "vanity" (see also chapter 2 for a classification of monetization techniques). He particularly connected the success of this monetization mechanism to the game modus in terms of player numbers, that is, single player or multiplayer, and the devices on which the games are played:

> "The more you see other players in the world, the more customization plays a role. But on mobile for example you usually don't see other players unless you actually click certain buttons. And then customization is no longer really your big seller." (INTB8, male, 50s)

Connected to the genre, the target group—and their known spending habits—was also considered when thinking about the early game concept and its monetization. A large studio producer for instance indicated that older players are "converting more often" (INTB2, male, 30s) and the head of games of a small studio elaborated on the difficulties they had finding successful monetization techniques for a younger target group (INTB3, male, 30s). Furthermore, the implications of the game-as-a-service model was a consideration for the early monetization design, as the longitudinal potential of the monetization model needed to be accommodated for. A certain repetitive potential of microtransactions was therefore favored, and ideally the in-game-purchase would cause minimal production costs. As such, interviewees preferred easily repeatable monetization mechanisms like skipping time and boosters in match-three-games to labor-intensive additional content such as extra skins for characters. For instance, a small studio producer elaborated:

> "We have to look at it from more like a live ops [i.e., live operations] perspective, like, how can we monetize this game over time? So [...] we think about, okay, does this scale over time [...] can we keep people engaging in the same loop for months?" (INTB6, male, 30s)

In a similar vein, the monetization consultant spoke about different kinds of mechanics that were specifically suitable to freemium games-as-a-service:

> "Free-to-play games have to be really systematic in design, that means that free-to-play games have to support a really long lifetime. Most good free-to-play games live for years, meaning that you have players who play these games for years. So in order to support this you have to have game mechanics that are what we call systematic, which you can kind of repeat in different settings and in different

> relationships to the game. Some players call it grinding, but that's just one of the many systematic things we have, or leveling up and so on." (INTB8, male, 50s).

Yet, the early integration of monetization and core mechanics was also seen more critically by a few of the interviewees, who considered it too much of a design constraint. A game designer at a large studio noted: "In the free-to-play market monetization ties so heavily to design that a lot of your design decisions end up really, really directed by the monetization" (INTA15, male, 20s). Likewise, another game designer experienced "extreme constraints if you're in the free-to-play space" because with in-app purchases "you need to consider stuff like gating the user and that's something you wouldn't have to deal with if it's for a paid app" (INTA16, male, 20s). In chapter 6, on the moral considerations around the free-to-play monetization model, I will go more deeply into this critical dimension of connecting the game design with the monetization.

4.4.3 Monetization in prototypes and pitching

In the iterative game design process, in which, as outlined above, early materializing and testing of different ideas is key, first prototypes ideally also serve to test the monetizability of the core game mechanics. For instance, one game designer noted that the monetization model was already represented "in the initial prototype of the game" (INTB4, male, 30s) and similarly the abovementioned producer said: "When you do the design, even for the prototype, you still need to think in how does this monetize." (INTB6, male, 30s). This also means prototypes can be rejected because they are 'unmonetizable', as this programmer at a large mobile studio explained:

> "All monetization models that we have implemented in the prototypes are free-to-play, [...] with in-app purchases or other ways of monetizing it, and we have already stumped two or three prototypes into the ground and rejected them, on the basis that they can't have a free-to-play business model." (INTA11, male, 30s)

However, some interviewees also indicated that it could be difficult to integrate the monetization mechanisms in first prototypes (which are sometimes done in paper or other analog form), as the integration of monetization was particularly hard to materialize so early on and would therefore stay on a rather hypothetical level. As such, the emphasis of early prototypes might firstly be on testing the fun, while designers would keep the monetization in the back of their minds. Somewhat contradictory, the abovementioned studio game

director, whose philosophy was to integrate game design and monetization as early as possible, noted:

> "The thing we aim to do [in early prototyping] is to find out 'Is this fun?' [...] Because we believe that a good game would monetize well eventually. So we try to identify what's fun about this game, if at all. If it's not fun then we'll move on to something else, but we identify what's fun about this game and how we can make it more fun, and then we identify what aspects of this game that can be fun if you're paying or if you're not paying." (INTB7, male, 30s)

The aim of such tests is thus in line with the purpose of the aforementioned playtests that need to ensure the game is fun, as seen in other sub-sectors that do not rely on microtransactions (Kohler, 2012). So, although monetizability is a substantial concern in free-to-play development, just like in other sub-sectors, a game—be it paid or free-to-play—needs to first be fun-to-play.

A producer at a large studio answered to the question of how they tested the monetization in early prototyping that they mainly focused on the question of which kind of virtual items would be based on *hard currency* (i.e., currency available through real-money purchases):

> "That's pretty tough very early [...] but what you can do is make sure you have things like hard currency included in the prototype, right from the beginning, and you start tracking when players would spend it. Already most players understand that, you know, this is gems or gold coins and I would spend real money for these things" (INTB2, male, 30s).

The tests at this point, which were mainly conducted internally with co-workers, thus required some game literacy (cf. Zagal, Björk, and Lewis, 2013), especially in the free-to-play realm, in order to understand and imagine how monetization would work in the final product. Still, early prototypes were considered to be able to test the very basics of the monetization concept, albeit somewhat hypothetically.[41]

In one of the larger studios, there was a possibility for employees to pitch game ideas internally to the management team, who would then decide whether the project was feasible and give it a green light. As such, pitching a concept can be one of the early "approval gates" (Kohler, 2012) as described above. Next to other main elements such as core game mechanics

[41] The role of testing the monetization in later game prototypes for more fine-tuning purposes will be discussed in the next section on the production phase.

and a graphical direction, these concept pitches were also expected to contain ideas on how the game would monetize. The monetization concept could be presented in the form of one or multiple slides dedicated to monetization techniques used in the game, typically with reference to other free-to-play games that use similar techniques (that were found in the market research, which I will discuss below). A game designer explained about this pitching process:

> "Monetization is an important part of the original pitch, so when you build your slides for a new game, you don't always have to prove your monetization in a prototype, but you do need to explain how you *think* it will work. [...] It's important that they will know what you think will be the primary *reasons* for purchase, and what you think people will purchase then." (INTB4, male, 30s)

In sum, the decision for a free-to-play business model is usually made before a project or new feature takes off. When conceptualizing the core game mechanics, developers should think about how these will be connected to the monetization. As such, in early conceptualizations of a game's core mechanics, be it a pitch with slides or an initial prototype, the free-to-play monetization needs to be represented.

4.4.4 Market monitoring: Analyzing other games' monetization

Another important element of the early stages of the free-to-play development process is analyzing the games market's trends and best practices, especially regarding the genre or target group,[42] which is related to the aforementioned considerations concerning monetization mechanisms and genres. This means, when a project kicks off in the form of a new game or game feature, market research often serves as an inspiration or even initiation. Especially commercially successful games are the object of such analyses and since the interviewees were all at studios that developed mobile games (as explained in chapter 2), the charts of top grossing games in the big app stores, that is, Apple's App Store and Google's Play Store, were a typical starting point for the market monitoring. The methods for the market research included extensively and analytically playing the direct competitor games, sometimes with a specific angle in mind, such as the monetization.

[42] In the next chapter, I will elaborate on the skills and expertise that are needed with regard to this practice of market monitoring, and who in the team typically conducts the market research. Here I will address mainly what role market analysis plays within the development process and *how* it is conducted, that is, how the knowledge is acquired.

A producer at a small studio, for instance, answered to the question on what role other games played in the overall development process: “For me it's huge. I think it's a really big inspiration, if you're developing a feature, I often look at games that have a similar feature”. According to him, one of the main gains of looking at other games was that it “accelerates the design process” (INTB6, male, 30s). Likewise, the CEO of a small studio explained about her current project:

> “We had like ten, fifteen titles, which were inspirational to us. [...] Now we're looking very much at some of the top ten grossing titles, we learned a lot from *Pokémon Go*, I mean, they did some things extremely well. [...] *Clash Royale* is extremely perfect when it comes flow and interface design.” (INTB5, female, 40s)

In a similar vein, the head of games of a small studio expanded on how he made sure his game concepts were fun:

> “I will test it for sure in-house, but then make playtests, think about new mechanics and for sure check all the competitors: How do they solve these problems? What are good games? Read the reviews of all our competitors: What are the customers’ demands? And what are annoying features [with] our competitors? And that gives me a feeling [of] what could be good and could be wrong because we won't clone any game, we want to make something new, but we don't want to reinvent the wheel.” (INTB3, male, 30s)

Knowing a repertoire of games and the corresponding ability to reuse proven game mechanics and interface elements has always been a valuable skill in game development, especially in the sub-sector of casual and mobile games (Juul, 2010; Van Roessel & Katzenbach, 2020). In the free-to-play realm, this is further extended to include monetization, meaning that next to analyzing the design, graphics or interface elements of other games, the market research focuses on monetization techniques and how these are connected to the game design. The monetization consultant for example argued that “in order to make a proper business case” one should be knowledgeable about average conversion rates of specific genres and platforms. He even knew these numbers by heart: “in casual games [it is] usually 3-4%, in MMORPGs on PC it is between 13 and sometimes 25%, in hardcore strategy games on mobile, sometimes even beyond 10%” (INTB8, male, 50s). He even based his consultancy expertise on the knowledge he had gained through a playing analysis about successful (and less successful) ways to integrate free-to-play monetization:

> "My business is based upon that. It's my own research. What I did is that I took the top games of free-to-play, on mobile, or wherever, most of the genres, and I analyzed, you know, I forgot the graphics, the audio, the gameplay etcetera, and I just looked at what (what's at its core), what mechanics does the game have, and made a kind of common denominator." (INTB8, male, 50s)

Larger studios sometimes have dedicated market researchers or even entire departments that are tasked with market research, which I address more in-depth in the next chapter about monetization-related expertise. One of the interviewees was a suchlike researcher who described his job as follows, also indicating the importance of monetization in this respect:

> "I'm in the research team, which is responsible for identifying good-running competing projects of other companies, identify which features run well in which games. We got lots of aspects like game design features, balancing features and of course also monetization aspects which is very important for us to make games, to identify which is doing good and how we can adapt features to our games." (INTA13, male, 30s)

Later on in the interview, he explained in more detail how he went about conducting such an analysis, which was similar to the approach of the monetization consultant:

> "I have to propose new features for the games, then I have to know what I'm talking about, [...] I usually play our top competitors in the market, like, in mobile *Clash of Clans*, *Candy Crush* and so, and *Puzzle & Dragons*. Usually I have one long-time-research, which takes one to two months [...] and then it's really in detail, an analysis of the monetization concept or so. For example regarding *Puzzle & Dragons*, regarding gacha[43] systems in Japanese games and how these mechanics work, explain it to people who might not know about it, and that it's an important monetization feature that works quite well in lots of games and then, give our best proposals and reasons of why, and how we can use that in future games" (INTA13, male, 30s)

Market researchers are thus primarily concerned with extensively analyzing competitor games and the ways these games integrate microtransactions. And this seemed a worth-while occupation, as the monetization consultant—who as an external specialist had worked with different kinds of studios—enthused over the value and expertise of specialized market researchers:

[43] See footnote 39 above and chapter 6 for an elaboration on of the concept of gacha.

> "The bigger the company, the more likely it is that they have market research. Some of them are really amazing, these are professional, studied economists and you know, they know statistics and lots of other stuff, and they play games with a very mathematical mind. They can analyze the balancing and a lot of other things. And they can create wonderful data out of the competition that they can analyze. It's good stuff." (INTB8, male, 50s)[44]

A producer from a small studio—too small to have a dedicated market research team—similarly emphasized the value of "benchmarking" other games' monetization. When being asked how she differentiated between good and bad monetization—a question that was meant to address the more controversial moral dimension of some monetization mechanisms, as discussed in chapter 6—she answered:

> "I guess a bad way would be if you didn't use the knowledge that exists around like, monetization mechanics or models. So, if you wouldn't do benchmarking and if you wouldn't measure what people are doing and then adjust to that." (INTB9, female, 30s)

At the same time, the analyses of other games are also meant to identify features that do not work in other games, so as to avoid or enhance such features in new games. For instance, one game designer praised how his studio made an effort to look "how we can improve as well, like to learn to improve over competitors" (INTB4, male, 30s). Likewise, the abovementioned head of games analyses the competitors' "annoying features" and "what could be wrong" (INTB3, male, 30s).

Competitor analysis is however not a task that is only defined by the particular development phase the project is in, that is, when the design of new game or feature takes off, but the timing can also be dictated by the market. That is, whenever a new game is released that is particularly relevant for the studio's genre or target audience, the development team should also take a look at it, as a producer of a large studio explained:

> "If a new game came out, within our genre, or with design in a similar way, so we're in casual simulation, [...] it's always important that everybody plays them and figures out, you know, what's working in them and what's not working in them. So yeah, very typically our CEO will play it, the head of studio will play it, and then say

[44] By emphasizing that the approach to this kind of 'playing research' is very analytical and mathematical, this quote illustrates the profound connection between data analytics and monetization design. I will elaborate on this connection more in the next section, on the general role of data analytics in the free-to-play development process. The personnel dimension of the connection between data analysis and monetization is moreover discussed in the next chapter.

'Look, they're doing it this way, something that we've been designing very similarly they do this way. Is our way better than their way?'" (INTB2, male, 30s)

The role of market research in the free-to-play development process thus ranges from extensively playing and systematically analyzing specific games—or specific features—to constantly monitoring the top-grossing games to keep being up-to-date about the current trends, as to not miss anything relevant. As I will elaborate on more thoroughly in the next chapter, this intense market monitoring also adds to the skillset and workload of game professionals in the free-to-play realm.

4.4.5 Market monitoring and imitation in the free-to-play sector

The heavy reliance on successful monetization techniques and, more generally, proven game mechanics is arguably impeding originality and innovation in game design and monetization. The lack of originality and risk avoidance in the games industry is indeed criticized in the above mentioned widely-used industry handbooks—not only recently but also long before free-to-play games became the dominant business model. In order to widen the range of gameplay possibilities and to prevent making "cookie cutter games" (Schell, 2008) that are merely based on current market trends, game design handbooks plea for frequent playtesting of novel ideas (e.g., Fullerton, 2014; Salen & Zimmerman, 2003; Schell, 2008). As the early prototypes and tests will enable the developers to predict better whether the game design will be successful before the game is 'green-lit' to go into full production, iterative game design is presented as a solution to reduce the financial risk of developing a game while avoiding copying others. However, just as game mechanics (Lastowka, 2013), monetization mechanics are not protected by copyright legislation and thus it is, at least from a legal perspective, unproblematic to copy them. The strong orientation on successful monetization techniques can be regarded as a way to forgo expensive iterating and testing and keep development costs low.

The especially high level of imitation in the free-to-play sector is also observed by some interviewees. One indie game designer from the 2015 study for instance called free-to-play development "reverse engineering other games and doing the same things [as] someone else" (INTA2, male, 30s) and a game designer at a large mobile studio noted that "a lot of attention in free-to-play analysis is given to clones and how much you can copy from your competitor" (INTB4, male, 30s).

The CEO of a small company expanded on her view on adopting other games' features as follows, acknowledging that they needed some copying to keep the project feasible:

> "We're doing a lot of innovation, so there are not so many parts we can steal, or get inspiration from, or copy, let's say copy, not steal, but copy from other products, or getting inspiration from other products, because we are working so on such a different level than other games. But when we can copy something it is a very good thing to do. So there are not many areas where we can do it but we shouldn't try to invent the wheel with everything out there." (INTB5, female, 40s)

To summarize, the interviews indicate that the free-to-play monetization model heavily impacts the concept phase of freemium game development, both in the case of the initiation of new projects and when a new game design feature is added in an already 'live' game-as-a-service. As such, the revenue model permeates the many activities in this phase—from brainstorming to prototyping and pitching—and informs the decisions related to not only target audience (*what kinds of monetization mechanisms would be most appealing to specific audience?*), but also genre (*what types of mechanisms are typically used for a certain genre?*), as well as the core game mechanics in general.

As typically a given upfront, the monetization model affects the design process from the start and shapes the conditions under which these games are conceptualized. That is, it needs to be made sure the game's core mechanics are monetizable and, accordingly, game mechanics that are not monetizable or do not contribute to the overall monetization concept are discarded. In addition, to buttress the concept, market research is an integral part of the concept phase. Especially commercially successful games in the same genre and for the same target group are analyzed with regard to their monetization. The most common approach to this kind of research is playing relevant games with an analytical mindset, which in larger studios might be done by a dedicated market research team, who in turn present their findings to the developers and management. The findings then serve as inspiration for the developers and, moreover, they are a way for studios to avoid risks and save costs of testing novel game and monetization mechanisms.

4.5 Production Phase

Just as in the concept phase, in the production phase of free-to-play game development the game design and monetization go hand-in-hand. As outlined in the former section, the foundation for a game's monetization is laid in the concept phase and the basic ways in which

gameplay and microtransactions are connected are thus relatively fixed from then. In the next development phase, the game goes into production and the focal point shifts from designing the core mechanics to balancing the game design and monetization, which includes e.g., defining the moments in which microtransactions are offered and how much the virtual items will cost. As is common in iterative game design processes, the fine-tuning and balancing is mainly done through frequent testing. Along the process the prototypes that are tested become more detailed and complex, and the kind of testing evolves from small-scale qualitative, mostly internal playtests into tests with larger numbers of users and digitally collected data. Accordingly, data collection and analysis gain significance in the process. I will now firstly go into the former type of small-scale, traditional playtesting and will discuss the latter, that is, testing with larger data sets, below in the light of the role of metrics in free-to-play game development. I will furthermore shed light on the distinct areas these types of testing emerged from. At the end of this section, practices and considerations regarding monetization balancing and pricing are addressed.

4.5.1 Playtesting the monetization

As explained above, directly testing the monetization in a game's early prototype has proven difficult. There are two main reasons for that: Firstly, the monetization system including connections to payment services are not in place yet in first versions of a game, making it hard on a mere technical level to implement real payment options into the prototype. This could be solved for small-scale physical prototypes in the same ways that comparable design problems are solved when technical features are still lacking, e.g., by applying a so-called Wizard of Oz method, in which "a game system is operated by a human instead of a software code" (Paavilainen, 2008, p. 2). Yet, secondly and more importantly, playtesting is always artificial to a certain extent, as it is meant to simulate the game dynamics but will never be able to fully resemble an actual playing situation. This is partly due to the fact that not all game features are implemented yet, but it is also because the testers are playing in a very specific 'lab' context instead of in their daily lives. There are playtest strategies that aim at reducing this lab effect, e.g., by furnishing the playtest room as if it were a living room (e.g., Tisserand, 2010). Still, motivations to play—and keep playing—the game in a playtest are hardly natural, which particularly applies to the monetization. That is, in the end players should be motivated to spend their own real money in the game, which they will most probably not consider in a test setting. This, in turn, relates to the fact that freemium monetization and the occurrence

of hard currency arguably breaks the illusion of a stand-alone, separate game world and as such defies the "magic circle", a term coined by Dutch cultural historian Johan Huizinga in 1944 to describe a game as a distinct space, which was adopted by Salen and Zimmerman (2003) with regard to digital games. Even though the magic circle is a contested concept (Copier, 2005), the danger to break the magic circle was indeed criticized in early debates on free-to-play games (Bogost, 2014; Lin & Sun, 2011). This makes the playtesting of free-to-play games and microtransactions more challenging than testing games without in-game purchases. Therefore, a goal of early playtests in the free-to-play realm would rather be to test the *possible* moments of monetization, that is, to define where players would be hypothetically willing to spend money (as also noted above). This can be done by looking at where specific motivations or desires are created within the game dynamics, which might then be the most suitable moments to offer in-game purchases.

For example, a producer of a small studio explained about their current project that they— after the smallest internal playtests—conducted a more elaborate form of playtesting, for which they hired an external company. This outsourced playtesting, which she deemed "expensive" yet "very interesting", enabled the studio to choose exactly how many and what target group of players (i.e., casual, midcore, hardcore) were playing, while they were talking aloud and being filmed during the test. Upon the question whether monetization in such sessions was tested as well, she answered:

> "No, actually, no. [...] I mean you can get hints of what people are spending their in-game currency[45] on, which also makes you at least understand if they get the shop, like, do they want to buy more things, are they motivated to even spend anything? And that you can test, but you can't test with actual money. [...] Like, you hypothetically see if they are interested in spending, because the first step is always to spend the in-game currency and then when you run out of that you start spending on the other type of currency. Or maybe you go directly for actually buying packages for instance. You can test some things, but not completely." (INTB9, female, 30s)

Another producer from the same small studio elaborated on the use of what he called *proxies* to test the monetization in an early state:

> "Q: Thus far, how did you test whether the monetization works?

[45] That is, soft currency, the one that can be obtained within the game itself and cannot be bought with 'real' money.

> A: We sort of used proxies, basically looking at how much do people operate their creatures, how much do they spread their resources, how much do they focus their resources, because depending on how people use the resources, it'll affect the overall economy. Which of course then affects the monetization." (INTB6, male, 30s)

Very similarly, a producer at a large studio explained indirect ways to test for monetization:

> "When you start playtesting you can ask, you know, are players going to be skipping timers, are players really wanting to get those units, you can kind of look at the desire of players, like, do they want these things that are premium?" (INTB2, male, 30s)

This same studio would arrange external playtesters and have them come into the office to play an early version of the game in production. A game designer that was also interviewed from this studio was aware of the artificiality of the playtest situation and reasoned that when people participate in a paid playtest, it would further cloud the comparison to a realistic playing situation. Therefore, testing for monetization would according to him hardly make sense:

> "We don't test monetization on the people that come into the office, because those people are all being paid to play the game, so we're then either watching them, or they're just trying to get through. [...] Even if we did payments, which we usually don't, we wouldn't really take any of that data seriously, because it doesn't reflect what people would do naturally within our game." (INTB4, male, 30s)

This studio had however found an interesting solution to solve this problem in internal playtests with co-workers (instead of external testers) that reminds of said Wizard of Oz technique: They would organize internal tournaments over longer time periods that included real-money spending, but the money was in the end donated to charity. The playtest organizer, in this case the producer, was responsible for collecting the money and donating it:

> "So we say, let's put a team together to see who can reach the furthest in our game, then you can actually start taking a look at where are people spending their money, optimally. We've even done tests where people donate to charity, for currency in the game, to really see what the conversion points are. So in an internal team (testcase), everybody would (try), and I would say, if you like five dollars to (give in) in-game currency, come talk to me, give me five bucks, and that money will go charity, and you will get all those virtual (items)" (INTB2, male, 30s)[46]

[46] As the quality of the audio in this interview is bad, there are some words in brackets to indicate it was the thing most probably said.

Even though very innovative (and unique within this interview study), this kind of testing raises the question of whether the awareness that the money will be given to charity does not influence the testers' spending decisions. After all, donating to charity can be deemed a noble thing, that is, having an inherent value in itself, which might make buying virtual items more appealing.

In sum, in the iterative game design process where frequent playtesting from early on is considered a key factor for developing successful, engaging games, the integration of freemium monetization poses an extra challenge due to the difficulty to simulate a natural playing context that would include the spending of real money. Interviewees acknowledged this difficulty, and they found workarounds by focusing on proxies such as 'desire to spend' or 'spreading of resources', and in one particular case by conducting internal playtests with real money that would then be given to charity.

4.5.2 Playtests vs. user tests

As a brief digression, I will elaborate here on the different terms used to designate different kinds of tests, which highlights the aforementioned contrast between traditional playtesting and data-driven user testing and, as such, reflects the distinctive traditions they come from. Even though both kinds of testing rely on the feedback of players and the interaction of people with the game system (rather than on assumptions about the kind of game dynamics that will occur from the game mechanics), they use different methods and approaches and emerged in different fields: The term playtest directly implies its exclusive applicability to games, whereas user test suggests a more neutral usage, that is, not limited to game development. As noted earlier, these two approaches are also debated within the industry's shadow academy (see also chapter 6 on for an elaboration on shadow academy in the games sector). For instance, in the abovementioned industry event panel discussion "Data Driven vs Design Driven", the latter position would plea for qualitative playtesting whereas the former would rather rely on quantitative tests. Playtesting as such forms a key element of so-called player-centric design as advocated in seminal game design handbooks (e.g., Fullerton, 2014, Salen & Zimmerman, 2003, Schell, 2008), while user testing emerged in (functional) software and web development, where it is an especially relevant tool for freemium services (Seufert, 2014).

Since free-to-play game development hinges on both areas and, accordingly, development teams represent both traditions in terms of educational and professional

backgrounds (see also the next chapter about the profiles of different roles and backgrounds in the team), the interviewees were indeed familiar with both strands and distinguished between the concept of playtests and user tests, with their accompanying jargon. As such, when mentioning playtests, interviewees designated small-scale, qualitative tests where the participants are either co-workers or people invited into the studio, who are then observed with the purpose of, for example, trying out new game mechanics—as described in the section about playtesting and monetization above. The kind of results these tests yield was, for example, described by one interviewee as "anecdotal evidence" (INTB6, male, 30s). In contrast, the more generic term (user) test referred to tests based on quantitative player data typically collected remotely, thus limited to a digital version of the game made available to a larger player audience. Accordingly, this type of testing was closely tied to data-driven design and could only be done from the production phase onwards, as I will elaborate below.

For instance, a game designer of a large studio juxtaposed the two types of testing by describing quantitative, data-driven tests as "more metrics-based" tests, in which "the data tells a story", because "if we build our analytics correctly, we can see which things players like", whereas he described playtests as "one-on-one personal tests" in which they "have people play the game, watch them play and hear their reactions to the game" (INTB4, male, 30s). Likewise, a studio game design director at a large studio explained about different kinds of testing (of a game that was already live):

> "Obviously the first process of checking is playtests, we playtest internally, we playtest with other people from within the studio and stuff like that, but we also have like global data coming in from the millions of players that are playing this game so we know how many of them completed the level, how many could continue to play after that, how many of them stopped playing after that level and all of that, all of these statistics are stuff that we use to kind of gauge." (INTB7, male, 30s)

The interviewees' descriptions illustrate that, even though handled and named separately, the two types of testing often complement each other, which I will address further in the section below on the limitations of data-driven design.

4.5.3 The role of metrics

Related to this kind of user testing is the important role of metrics and data analytics in current game development. The role of data was already touched upon in some of the findings presented above, but the significance of data varies along the production process: The further

the game development advances, the more important data become. That is, as soon as a somewhat fleshed out version of the game is available, for instance in the form of an alpha or beta release—that is, a version of the game is circulated in a test environment amongst a finite number of players—player data are for the first time systematically collected and analyzed and results are fed back into the game design. This also means that along with building the game, the system with which data will be tracked has to be co-developed. The CEO of a small studio for example noted that "the second when we start building the game, we also put in tracking" (INTB5, female, 40s).

The interviewed free-to-play developers generally highlighted the overall significance of data analytics in their work practices, especially in their sub-sector, and they largely regarded data an added value during the design process. For instance, the monetization consultant indicated that "for free-to-play games, player data tells you what happens in the game" (INTB8, male, 50s) and a producer at a small studio preferred data-driven design over the "traditional, idea-driven" design, because "data don't really lie" (INTB6, male, 30s).[47] A games researcher at a large mobile studio moreover noted: "It is just logical to not only try to make a good game just by luck, that's not the way [...] how game design in general works, but especially not in the free-to-play market" (INTA13, male, 30s). A head of games of a large studio answered to a question about what to him were the most important peers to receive feedback from—which was actually hinting at a community of game developers—with an explanation of user feedback and data analysis:

> "Most important feedback—as the first step we try to analyze everything to make some, for example, calculations in Excel or in Matlab [...] and see how big is the pricing, what could be the biggest amount of revenue, what should be, if we use our lowest KPI, and see what is possible and then the testing over the test market" (INTA17, male, 30s)

Backing up design decisions by data thus helped the interviewees being more confident in their choices and supported their positions when they needed to convince others in the team or in management. For instance, a level designer stressed the importance of metrics to argue for a new feature in a game that was already live (and hence already had data tracking in

[47] Note that some interviewees use data as a plural noun (e.g., "data don't lie") whereas other use it in singular form (e.g., "data tells you what happens in the game"). As both forms are correct according to the Merriam Webster Dictionary, the interview quotes are left in their original form. In general, this thesis uses the plural form.

place): “If you have potentially some key performance indicators you can point at because if you improve this menu, churn would go down by this percentage, or percentage point, then you'd strengthen your case” (INTB1, male, 20s).

Data tracking goes hand-in-hand with the abovementioned user testing. In this respect particularly the so-called AB or split tests were common, in which two specific conditions of the game design or interface are tested among the player base. Accordingly, based on the data analysis, the game is adjusted and optimized in terms of gameplay and monetization. A producer for instance explained:

> “You have a point of data, that says 'This is happening in the game, people are doing this.' And then you analyze and then react. So to react would be ‘okay, let's do a split test to test out something else, let's fix a bug,’ etcetera.” (INTB6, male, 30s)

Thus, data analysis served as a helpful tool to back up or test design decisions, especially in later development phases.

4.5.4 What data are collected: KPIs

The different kinds of data tracked, that is, the aforementioned KPIs (key performance indicators), in free-to-play development concern the number of users, the frequency of use and the points where players would leave the game (churn). Interviewees approached the interplay of different KPIs rather holistically, that is, they regarded metrics that did not directly concern monetization (like churn) just as important as the ones that were specifically about monetization (like conversion rate) for a game’s success and profitability. This was based on the belief that a large and loyal user base was just as much as an indicator for (monetary) success as the concrete money spent in microtransactions.[48] In that sense such indirect monetization metrics are comparable to the proxies used for monetization design in early playtests, with the central question reading: *Are the players motivated to keep playing?* If so, monetization would follow naturally.

A metric that was deemed particularly significant by the interviewees was *retention*, which designates the part of players that keep coming back to the game. The central role of retention was for instance highlighted by the monetization consultant, who argued that retention was a profound part of the quality of the game design and should therefore be there from the start:

[48] See also section 6.6.6 “Keeping non-paying players happy”.

> "One of our favorite things that we found out in all the past ten years, is what we call retention. Or the inverse is churn rate, how many players are actually leaving the game. Many people try to fix retention, but the retention is actually part of the DNA of the game, so whatever you do to your game, the retention can only be optimized plus minus X percent. Now in order to fix retention in a large way, it means that you have to change the game in a large way. And sometimes the effort to change a game is so large that it's actually better to (reinvent) the whole game." (INTB8, male, 50s)

A producer of a small studio summarized his view on retention by saying: "Retention is retention, if people come back day after day, they like the game" (INTB6, male, 30s). Likewise, the CEO of a small studio stressed its importance as a basis to build a free-to-play game on:

> "In free-to-play you need, best case, millions of users, to really earn money with the game, so if in the first ten minutes more than twenty percent leave your game [...] that's a big problem. And then it starts, and then the retention is the next big thing which is very important and [...] if you get this under control, then it's simply to get the shop right, it's homework." (INTB5, female, 40s)

The generally shared belief that in free-to-play games a good integration of game design and monetization is key, thus also reflected in attitudes and practices of data analysis. As such, also in the production phase, monetization affects the development process to a great extent. It moreover shows the profound connection between free-to-play games and games-as-a-service, as measuring the KPIs—and adjusting the design based on these results—demonstrates the iterative and perpetual nature of freemium game development. That is, data collection and analysis make the freemium games-as-a-service model worthwhile to begin with.

4.5.5 Limitations of data-driven design

Yet, although game designers indicated that supporting their design decisions with data helped them in justifying ideas, they also acknowledged limitations of purely data-driven design. A producer of a small studio referred to the lack of background information and not knowing a player's reasoning as a limitation of data (INTB9, female, 30s). A producer of a large studio similarly noted:

> "Sometimes data will blind you and sometimes data looks too high level, to really look into the details of the issue, because when you have millions of DAU [i.e., daily active users], and you're looking across when, say, one percent is the paying percent, right, it's very very easy to be blinded by averages." (INTB2, male, 30s)

Likewise, reflecting the “messy reality of game development” as described by Whitson (2020), the CEO of a small studio elaborated on the several tools they used for data analysis:

> “The problem with all the tracking tools is that they never give you the formula with which they calculate stuff. Every tracking tool you find in the world defines a daily active user differently. But they don't tell you what a daily active user is for them in detail. So, what is the formula, what is the event, which triggers that, what is a daily active user? So everything that is really important for us, we also track by ourselves, because then we know which formula there is. [...] Because for us a daily active user is not a user who opened the app, but who also did something in the app [...]. And so there are lots of metrics where you can cheat yourself, or be very very harsh with yourself, but you have to decide which way you want to go. [...] I talked to another company, they have built in five different tracking systems, and it varies, day one retention from ten percent to thirty percent [...] only because they calculate so differently. Ten percent is pretty pretty bad, thirty percent is okayish [...] so we are also having our own tracking and that is when it comes in that we that we start shopping, [...] for players, then we get feedback from them by our support formula and we get feedback in KPIs. [...] And then the big riddle solving starts.” (INTB5, female, 40s)

Many interviewees therefore preferred a mixed approach to game design, in which metrics were combined with design expertise and intuition. For example, despite his preference for data, the abovementioned producer who claimed that “data don’t lie” (INTB6, male, 30s), did not favor a totally data-driven design method, as he argued that mere numbers do not provide additional background information. He warned against being “data reactive” and instead sought for a middle way, as “there's always like a balancing to be taken.” To him, the limitations of data-driven design were closely related to “monetization-driven design”:

> “I don't think you can build a game just with monetization loops. I think that's something that free-to-play production has learned, is that you can't only look at monetization and you can't only look at data. Like you need, designers need to use their gut feeling as well, and then try to validate with data. Not the other way around. We don't look at data and then we just hang on data, because that can really lead to these kind of bumps, where you [say] 'oh this thing short-term increases our XY or Z,' but it might have a negative long-term effect. And designers and producers really need to be the advocates of that.” (INTB6, male, 30s)

In a similar vein, a head of games at a large studio praised the approach of his studio, because they “really balance out well gut feeling versus user data”, especially in the case of an innovative game idea, when they “need to trust [their] guts and what the team feels” (INTB7, male, 30s).

The monetization consultant also spoke about metrics not always being a useful source to base design decisions on, but rather than solving or complementing it with designers' 'gut feeling' like the interviewees above, he emphasized the importance of an analytical mindset to identify the problem:

> "The thing with data is that data tells you what happens but never why. And the why you have to find out. And that's the difficult part and that's the reason why you need to design with an analytical mind, to actually find that point, or those multiple points." (INTB8, male, 50s)

In fact, with an analytical, detective-like mindset he would complement the data by directly asking players about their reasons for ceasing to play:

> "There was one game, where I couldn't find out, you know, when it happened, or why it happened, so what I did is that I actually engaged with the players, and asked. I didn't give them the data or something, I just said, 'I think this game has a problem here and there, can you describe me your side of things, how do you view that, you play this game for a long time, what's your thought?' And sometimes you get really surprising answers, because that might be an indirect problem caused by something completely different. Sometimes you feel like a Sherlock Holmes, finding the last clue." (INTB8, male, 50s)

Thus, complementing large-scale quantitative data with more qualitative data collected in the small-scale playtests, but also design intuition, was considered good practice.

However, the limited informative value of data in terms of lacking depth was not the only reason not to solely rely on metrics in the design process. That is, even though considered crucial to free-to-play game development, collecting and analyzing player data also come at a price, as it demands a considerable part of the project budget. Particularly smaller studios had to carefully consider if and how thoroughly they could implement data analytics, as it may be at the expense of other cost items such as marketing or game design. One small studio developer indicated that their company only did very basic data analysis for this reason, even though this provided them with less detailed information about the performance of their games than larger competitors:

> "We are just tracking the basic things, like retention and all this stuff. [...] It's not like all the other free-to-play giants, that make terabytes of data just finding out what's the best point to show an advertisement, what's the best point to give an offer or presenting a sale, so for us it's relatively basic [...] because you have to invest a lot in analyzing things to get a little out of them. You must have a special

> analyst[49], you have to implement everything and you must draw the right conclusions from it, and then you need the team that could change these things to increase revenues. So this is very complicated and in our structure and our company and for our target audience, it's not so necessary. The revenue we get out of a player is not so high that we could afford that." (INTB3, male, 30s)

Likewise, the small studio CEO described the choices they faced due to smaller project budgets, which forced them to track some but not all potentially relevant data:

> "You have to be careful where your money goes, because it can either go into buying information or into making more stuff in the game, and this is a big difficulty for smaller studios with limited budgets, but the information is super valuable. So for example when we do our onboarding process, every step in the onboarding process is tracked, so we know how many people do which step. Other companies also do AB-testing, we haven't got AB-testing at the moment; next to a really big game, a new technology, etcetera etcetera, it was a bit too much for us, also to do AB-testing, which is falling on our feet right now, ((laughing))" (INTB5, female, 40s)

In other words, particularly small studios need to carefully weigh the pros and cons of 'buying player information,' as it might take resources away from other parts of game development, such as game design or marketing.

4.5.6 Balancing and pricing

As mentioned above, when the game development process evolves, designing is increasingly about fine-tuning and balancing, which involves making sure all elements of the game systems are weighted in such a way that there is e.g., a level playing field among players and that the game gets neither too easy nor too hard (cf. Fullerton, 2014). Already a delicate endeavor in games without microtransactions, in free-to-play development the balancing becomes even more complex due to the addition of monetization techniques. For instance, a game designer at a large studio spoke about balancing the monetization as a labor-intensive activity: "You need to balance the game so that you hit a mark where players are able to play enough, but not too much, and that requires a lot of fine-tuning, a lot of design work" (INTA15, male, 20s). A level designer equally elaborated on how he approached finding the right balance between a game's desired difficulty level and the monetization, since one requirement was that all

[49]As I will address further in the next chapter on the role division in free-to-play game development, the larger studios typically also had dedicated data analysis departments with highly specialized and educated professionals, whereas in the smaller studios it was rather producers and designers taking up tasks related to data analysis.

levels should be doable without spending any money, while monetization possibilities should be optimized. To explain how he went about finding this balance, he referred to the theory of flow by psychologist Mihály Csíkszentmihályi, which is widespread in game design research as well as industry handbooks (e.g., Fullerton, 2014; Koster, 2014; Salen & Zimmerman, 2003; Sweetser & Wyeth, 2005). In doing so, he simultaneously countered the accusation[50] that his company—a large mobile studio with some highly successful mobile games in the match-three genre—would deliberately make some levels too difficult as to force players into spending money:[51]

> "We internally call them 'killer levels' sometimes, when levels just block players, and we don't want that. […] I know there's many people that think that [name of the company] does it intentionally, and puts in these levels in, but it's not part of the plan. They [i.e., the players] should be able to progress, and we know that if players get stuck, [...] they drop out, and they quit the game. So of course, we need some friction because if the game was super easy, people would drop out as well, because easy is boring. And there is a [...] psychology theory of Csíkszentmihályi, about flow [...] which is very much fitting to understand how a company like [name of the company] would visualize difficulty within the levels, and the attempts per level, which is one of our main metrics. [...] So imagine like if you have like this curve, of flow, and sometimes it will go [...] a little bit above, that might be the time that players either just keep on grinding and say like 'Oh this level is really hard,' or go like 'You know, fuck it' I'm just paying for this one'. And so you could visualize monetization for a game like [name of the game] as when the curve goes a little bit up, too high, and you just kind of smoothen it with some gold bars or boosters." (INTB1, male, 20s)

Particularly interesting here is this "smoothening the difficulty curve" with microtransactions, as it presents the monetization mechanisms as a kind of correcting force to maintain the game in the desired difficulty level and, as such, to keep the player in a flow. It thereby neglects that the original idea of "being in the flow" rather concerns a satisfaction with one's own skills (Csíkszentmihályi, 1990).

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[50] Interestingly, an indie game developer in the study on imitation in the games sector exactly voiced this accusation towards a well-known game made by the studio for which INTB1 (male, 20s) worked. The interviewee noted: "[name of the game] is very polished and looks very nice and works all well together, it's just that there is a point where there's this purposely super hard level that you would usually not do as a game designer, because it throws out the player out of the experience and you don't usually want that but there are other mechanics in place [...] that make the player wanting to keep playing even though they really don't like that. And they can overcome this not liking this level by just paying 90 cents and then they can keep getting the great experience. Because it is a good experience and people wouldn't play it if [name of the game] was an awful experience over all, but there are specific points in the game that are awful experience and they wouldn't have to be." (INTA7, male, 30s)

[51] See also chapter 6 on developer norms about fair monetization, and how they strive to make the game playable, accessible and/or fair for non-paying players.

As the designer elaborated, in this process of harmonizing the difficulty level with the monetization, good interaction between designers and the business department (who are responsible for the metrics) is key,[52] because they are together responsible for this complex balancing. According to him, short-term successes in monetization could even jeopardize the long-term viability of the game:

> "For instance, if an episode, of (twenty) levels, is too easy, the business team would come to us and say 'Why are our players just running through this level?' And of course they are not spending anything. [...] and we go like 'Okay that was a bit too easy' and [...] I would say 'we'll need to make this a little bit harder,' [...] and that allows us to have stable revenues as well, because, if we just throw out random difficulty and see 'Oh this week we were really lucky' [...] that could be a short time result like 'Oh look! We got a spike in monetization' and then we lose lots of players. [...] So it's a very fine balance between 'We need more difficulty and frustration, but not too much, it shouldn't be too easy either, because we lose players and this is almost like a concert ((laughing)), of difficulty, that's being done, between level designers, or game designers in general, and business needs and business margins." (INTB1, male, 20s)

The game this level designer worked on was mainly a single-player game with some limited multiplayer characteristics. In the case of multiplayer games, balancing in free-to-play games also involves creating a level playing field between paying and non-paying players (which was also something the interviewees strived for in terms of fairness, as I will address more thoroughly in chapter 6). The CEO of a small company was developing a multiplayer game which included direct battles between players in its design, and elaborated on the challenges of balancing between players in that regard. She particularly addressed a monetization technique of selling so-called *buffs* (that is, a one-time power improvement of a weapon) and how to balance these in such a way as to prevent non-paying players from leaving the game:

> "I also think that buffs are okay, but they will create a bigger churn on your community. On the non-paying users, because after a while they figure out, 'okay, if I am matched against a paying user, I have no chance of winning.' And this doesn't feel good. So it is a bit of balancing, some games balance buffs in a way that, if you have the buff, people without the buff cannot even win. What you have to keep in mind is that, non-paying users, who are playing a lot, have a much higher skill than paying users who just buy the buff. So if there is a good chance the really clever players can also beat the paying users with the buff, and they are not using a buff, then it's okay again. Because [...] this is a really cool feeling of 'ah I beat the paying user.' And you can also give buffs out for free, I mean, it's a part of balancing, it's Fingerspitzengefühl." (INTB5, female, 40)

[52] For an analysis of the interplay between designers and business units in large studios, see the next chapter on the roles and expertise of monetization.

Thus, the multiplayer element adds another balancing dimension in free-to-play games—in which balancing the game design and monetization in itself is no easy endeavor.

Additionally, in the case of monetization, balancing also concerns *pricing*, that is, defining how much the virtual items will cost. In order to enable changes in the pricing also in later stages of development, for instance on the basis of tests or user metrics, interviewees deemed it important that first versions of the game accommodated flexible and scalable monetization. A producer at a small studio elaborated on this need for adaptability of all versions of the game:

> "When you make free-to-play games you want to make a structure that is solid, but still flexible. So that you, during the live operations, can, like, exchange things easily, change prices, change pictures, change gifts. All the systems need to be there to support this, and if you don't already plan it here [points at a visualization of the ideation phase], then it's going to be very difficult to do here [in soft launch]." (INTB9, female, 30s)

Ideally, the game designer and/or producer of the team can conduct the pricing themselves, without, for instance, the help of a data analyst or a monetization expert. Especially in smaller companies, which typically lack a dedicated person for this (see also chapter 5), it is important that the producer or lead designer can directly adjust the prices, as the abovementioned producer explained:

> "So you need to be able to make the changes very fast also, [...] the designers should be able to change them themselves for instance. They should be able to look at the data, and other player feedback and then [say] 'Oh okay, I think we have to maybe lower the price a little bit for this group of people'". (INTB9, female, 30s)

In a similar vein, the CEO of a small studio explained how the team made an excel template that was used for the pricing of items. This file rendered ideal pricing ranges according to mathematical formulas based on assumptions on player spending behavior, in this case especially concerning gambling-like monetization mechanisms. As such, she also stressed the subjectivity of pricing strategies, in the sense that spending money should bring about a rewarding feeling to the players, which was almost independent of the mere statistical 'fairness' of the pricing (see also chapter 6):

> "We have built excel templates where we put in what will be in a shop item, and it will tell us in big red letters if this is not okay within our balancing. […] So there are

> prices for example and […] it depends on how much gambling a booster is, how much maximal reward you have to throw out, and if a package is very expensive, the players need the feeling of 'Oh I got something very wonderful' so it needs to be way over 100%." (INTB5, female, 40s)

She later elaborated on how the formulas in the excel template were adjusted in the course of the development process with the collection of player data, at which point the actual effects of the pricing were known instead of assumed:

> "So it [the pricing template] is based on several assumptions we made, assumptions [about] how much time does a player play in the app and what is he going to do in the app, how many mini games he is playing, while exploring the world, how many duels is he playing, how much currency he will acquire per day. There are a lot of assumptions in there, and when the assumptions change, because we did testing and we found out, 'okay, it's different from what we assumed', we have to redo the pillars, and rework the balancing, this is a process that will never stop, so you will do this again and again and again, over the whole lifetime of the product." (INTB5, female, 40s)

The pricing can thus be based on assumptions or tests, or a combination of both. Yet, the further along in the development process, the more user data will be available to test or support assumptions. In addition, the interviewee's remark that it is a "process that will never stop" illustrates the 'endlessness' of games-as-a-service as discussed above, on which I will elaborate further in the section on the phase of "live operations" below.

Likewise, a small studio producer explained how the pricing was sometimes defined on the basis of split tests, that is, tests with several conditions divided between different players:

> "For example, a previous game we worked on, or like a project, we had this tournament, and figuring out, 'Okay, what should it cost to go into the tournament?' And then just create a lot of split tests with different costs, and then you see okay, which one is most profitable. […] It's just, instead of spending two weeks figuring out what the proper price is, like, by discussion, let's just throw out a lot of versions, and then we see which one sticks." (INTB6, male, 30s)

But the pricing was not only done in an iterative way, that is, by means of testing. A producer at a large company indicated that his studio also used established sales techniques to define the price of microtransactions. He specifically explained the technique of so-called price anchoring, while again reflecting on the arbitrariness and subjectivity of the amount of money asked for virtual items:

> "There's a long list of sales tactics, that game designers use. Things like price anchoring, which is typically used in a store, you sell a vacuum cleaner and the first price you see is a hundred bucks, then you sell one for eighty bucks, and it feels like, 'Oh that's a good price', whereas when the first vacuum cleaner that you saw is ten bucks, then the eighty bucks ((incomprehensible)). Yeah, people have (inherent biases) as soon as they see a price. So that [...] we do a lot, you know, making sure that the price of things is very clear to players at the beginning, and that it's anchored at a point (that would) work for the game. Because we're selling virtual items at the end of the day, which are, essentially free, right? So pricing is pretty important." (INTB2, male, 30s)

To summarize, just as in the concept phase, monetization is an integrated part of the production phase of the free-to-play game development process, which is characterized by frequent iterative testing and data-driven design. In line with the design philosophy addressed in the concept phase, that is, that monetization and game design should be thought together directly from a game's first ideation, general user metrics and monetization-specific metrics are regarded two sides of the same coin. That is, in the practice of collecting and analyzing user data and the ways these data feed back into design decisions, gameplay-related metrics such as retention and churn are deemed to affect a game's monetary success just as much as the actual conversion rate and money spent.

Developers generally trust the numbers, but acknowledge it can be tricky to find the exact reasons behind certain data points, for instance, players leaving the game or not spending money. Therefore, AB and split tests are common ways to directly compare two variants, which might then be complemented with qualitative tests or player surveys. In addition, by building versions of the game that are easily adjustable—not only for the programmers or data analysts but also for designers and producers—fine-tuning, particularly in the pricing, is accommodated also in later stages of development.

As such, the balancing in free-to-play development manifests in several ways. On the one hand, it concerns the coordination between retention (designing the game in such ways as to not break the game flow too much so that players leave the game) and profit (seeking the boundaries of the difficulty level so that players spend on in-game items). This is also shown in the collaborative process, where, especially in larger studios, good interaction between designers and the business department is key. On the other hand, balancing a game in free-to-play development concerns pricing, where sweet spots need to be found price-wise. All these balancing acts are facilitated by (a series of) iterative testing(s).

4.6 Soft launch

When a game concept shows potential in the concept and production phase and it is in such a shape that it can be played by larger numbers of players, it is released for further test purposes. A first game release is often done in a so-called soft launch, meaning the game is made available in a specific geographic area without releasing it globally. A soft launch's goal might be mainly technical at first, meaning primarily the technical stability of the game is tested, while in a following full soft launch, monetization is also integrated and constitutes an important variable in the data analysis.

The regions a game is soft-launched in are deliberately chosen, and are typically smaller markets with specific economic, linguistic, or demographic characteristics. According to Kerr (2017), "UK and Ireland game companies often 'soft launch' in Canada as a proxy for a US launch" (p. 90). A producer at a large studio described soft launching as a process with two stages, with the first stage being a release in "B-countries, which is where you could acquire users for very, very cheap" for example "Philippines, Indonesia, Malaysia, Thailand, Vietnam" and secondly "tier 1 or A-countries" which would include Canada, Australia and New Zealand (INTB2, male, 30s). Some interviewees had their games in soft launch at the moment of the interview, for instance, the small studio CEO indicated they were doing an "early technical launch" in the Netherlands and Poland (INTB5, female, 40s) and the project of the two interviewed producers of a small studio had a technical soft launch in Brazil (INTB6 and INTB9).

Evaluating the game's potential success and profitability on the basis of user metrics often constitutes the main purpose of such a soft launch, as it might still be decided after soft launch that the game will *not* be released globally—but rather canceled altogether. The abovementioned producer explained how he had actually not worked on a globally-shipped game in his current studio yet:

> "Q: These games you worked on at [name of the studio], were they all released?
>
> A: Most of them were in soft-launch, but none of them actually were globally boxed under the [name of the studio] brand. So [name of the studio] only globally launches games that are going to become hits, or are going to make millions and millions of dollars, so in that respect [name of the studio] has soft-launched [...] between ten and twenty games over the last few years and (I think) only one or two of them have actually (been globally launched)." (INTB2, male, 30s)

Soft launch as such strongly aims at reducing risks, and the affirmative statement that the company only releases games globally that 'are going to become hits' illustrates the confidence the interviewee had in this strategy.

A game designer from the same studio similarly explained how getting his game concept to soft launch was an important milestone for him to reach internally, as it would increase the chances of the game being invested in by the company,[53] again referring to the KPI retention:

> "You basically convince a certain group of people that soft launch is something that's worth investing in, and once you go into soft launch you have real data that you can just verify, and the absolute sort of internal milestones about, what our retention is going to need to be, what the cost per install is going to be, in order to invest in a game." (INTB4, male, 30s)

As the project he was working on was actually in soft launch phase at the time of the interview, the game designer further expanded on the significance of this stage, also referring to the particular relevance of the metrics gathered in soft launch for the free-to-play sector. Upon the question what the project's most prominent milestones were, he answered:

> "Well certainly our soft launch, which is happening now, has a big part in this because, well, ultimately if we can't make the game profitable in soft launch then we won't invest in it. So, we either shut it down soon, or keep it in soft launch, until we can get—I mean I'm not saying whether or not [name of the game] has good or bad data right now—but, when a game goes into soft launch, the important thing is that the cost it takes to acquire a new user, the cost per install, is cheaper than the average lifetime value they expect from a player. So, in free-to-play, obviously, the people who do pay are basically paying for all the people who don't pay." (INTB4, male, 30s)

Interestingly, the interviewee was not allowed to mention the performance of the game in soft launch (which he had stated more explicitly earlier in the interview). Other interviewees also mentioned ranges of the conversion rate (e.g., between two and five percent) rather than naming actual figures, and interviewee INTB7 (male, 30s) also indicated he could not disclose the exact conversion rates of their games. The free-to-play sector thus seems no less secretive than other parts of the industry, such as the AAA sector (O'Donnell, 2014), with the metrics

[53] This company had the means to invest in their own games and would accordingly decide internally which concepts/prototypes to support.

being a business secret just as the artwork and the programming code (cf. Van Roessel & Katzenbach, 2020).

Furthermore, the interviewee had internalized the simple mathematical approach which was the central aim for soft launch to prove: The cost per install (or cost per acquisition)[54] should not exceed the average lifetime value, or the "average net profit of a player" (Luton, 2013, p. 16). This not only illustrates the data-driven character of the freemium games sector, especially in the stage of soft launch, but also again highlights the profound integration of monetization in free-to-play development, and stresses the basic premise of the monetization model, that is, a small minority of player finances the game in its entirety.

As user data, especially monetization-related metrics are monitored closely in soft launch, AB or split tests are again an important part of this. One interviewee, INTB1 (male, 20s), even considered soft launch and AB testing the same thing. The head of games at a big studio summarized the development cycle of a new feature as follows:

> "If it is a brand new idea then we definitely need to try it out in some way. And then playtest it internally, and then if that works out [...] we release it (during) soft launch in one of our games [...]. And then we AB-test it [...] and we see which of the ideas work best, and then eventually pick one and release it." (INTB7, male, 30s)

In a similar vein, the producer of a small studio described how after soft launch the development process gets more iterative and metrics-driven:

> "Before soft launch we really just sort of old-school design, like, someone has an idea, we prototype it and implement it etcetera, then after soft launch we spent the last three months being very iterative, just looking at data, doing the split tests etcetera. And now I think we're getting to a state where we have the basic engagement at a good enough level, so now we're sort of back at the first again, because we have some features that we know need to be done, so now we're implementing those, and then, when we push them live, we'll start looking at the data again. [...] It's a little bit of a flip-flopping." (INTB6, male, 30s)

Another producer of the same studio elaborated on the working routines during soft launch, by indicating that in this phase…

> "… everything just floats together. We plan week by week, because we look at the data, and then we replan, and then we look at the data, and then we replan. [...]

[54] Cost per install, also called Cost per Acquisition (CPA), refers to how much it costs to get a player to play the game, usually calculated by marketing expenditures divided by players gained (Luton, 2013, p. 16).

> And everything needs to be super clear, what we are releasing, otherwise if something is broken, we don't know what it is. [...] I think [name of another producer] looks at the data almost daily. Also together with the CEO. And then we have a prioritization meeting each Monday, where we partly include what we have discovered during looking at the data, [...] but in this phase, you don't want to make any big changes, really." (INTB9, female, 30s)

But even in soft launch, metrics are not necessarily the only source of feedback, as in some situations complementary methods might again be needed to explain the plain numbers. For instance, the large studio producer spoke about a particular soft launch, in which the development team was in the dark about the reasons for players churning, which was then solved by directly asking top players:

> "When we were soft launching [name of the game] we had a 'game over' sequence, like 'time's up, but if you pay a little bit of premium currency, then you can play another 15 seconds'. And we launched that, and it was monetizing very very well, and it didn't look like anything was changing in the engagement metrics. Everybody seemed happy. But then over time, we started noticing that our DAU [i.e., daily active users] was declining, that players were dropping out, lots of players were churning. We kept asking questions, why, there is nothing wrong with the metrics. We asked a lot of players, and our top players said 'I hate playing this game now, because after each round I get asked, do I want to spend money, sometimes I accidentally spend money. Sometimes it just feels like my opponents can just buy their way to the top, this is not the game that I played (initially)'. And then we said 'yep, cut the feature.' and the DAU slowly stabilized" (INTB2, male, 30s)

This interviewee's story again points at the fact that a short-term peak in monetization is not necessarily a good sign (as also mentioned in the section above on the role of metrics,) as it might endanger the viability of the game in the long run. Moreover, it shows that even in soft launch, decisions in game development cannot solely rely on metrics. As clean as the simple formula might sound (buying one player should not exceed average profit per player), the reality of the matter is 'messier' than that.

4.6.1 Observing spending patterns in soft launch

As I have shown in the former sections, it is hard to measure monetization in the concept and production phase, as the payment system is not in place yet. Soft launch as such offers the first opportunity to gauge players' spending patterns—with the caveat that the players in the chosen geographical area might not be representative for a global population of players. A

specific KPI that stands out in this phase is that of conversion rate, as it is the one most directly linked to a free-to-play game's monetization and, as such, to its financial success.

Conversion rates are a particularly sensitive topic within the free-to-play discourse. As mentioned above, there is a secrecy around the exact conversion rates of specific games, as it is considered part of the business secret. Moreover, one of the controversies around free-to-play as a monetization model also stemmed from the generally low conversion rates in many popular freemium games, as a small percentage of paying players would be encouraged to spend large amounts of money, and thereby potentially be exploited (see chapter 6 for a more detailed account of this issue from a moral perspective). But also for economic reasons, the interviewed developers strived for a maximal conversion, that is, spreading the spending more evenly among players, to ensure a sustainable business model rather than one that is based on the exploitation of a small minority. For instance, a game designer noted:

> "If we're looking at it from a business standpoint, the healthiest place to be is one in which as many people as possible are spending within their means. And (continue) to play your game. So I'd much rather have a hundred people give me one dollar than one person giving me a hundred dollars." (INTB4, male, 30s)

Interviewees generally acknowledged that some mechanics and genres would naturally bring about a better conversion rate—something that already feeds into the game design in early stages, as discussed above. Some interviewees accordingly spoke about how the conversion rates observed during soft launch met their expectations—or not. For instance, a small studio producer was pleasantly surprised by the conversion rates in their (technical) soft-launch, as they expected less people to be paying at that point. Likewise, the CEO of a small studio reflected on the informative value of the conversion during their soft launch in Poland:

> "We have a couple of thousand players on the app, […] we had one month where we had a pretty good conversion rate, way over three percent, nevertheless that is not at all representative, so we were in the lucky situation that [...] we had a *whale*[55] pretty early on, so in the first thousand players we got on the game we had one person who was spending like crazy in our app, a couple of hundreds euros." (INTB5, female, 40s)

[55]A *whale* is a player in the category of biggest spenders. See chapter 6 for an explanation of the different spender types in free-to-play games and freemium services more generally, as well as the interviewees' attitudes towards those spender types.

To summarize, soft launch is a significant milestone in the free-to-play development process, as it is the first time that the whole 'ensemble' of metrics can be collected and monitored, and thus the viability of a game can be measured. During soft launch, fine-tuning in terms of pricing and balancing is still possible, yet for major changes in game design—including the connection between monetization and game design—it is too late. Seemingly straightforward formulas such as "does the net profit per player exceed the costs per install?" serve as the basis for deciding whether the game will be globally released or canceled altogether. Particularly important metrics in this phase concern the monetization (i.e., conversion rate), but also average lifetime value (i.e., how much players are spending on average in their total playing time). As such, the data-driven nature of free-to-play development reaches a peak at soft launch.

4.6.2 Live operations

It should be stressed here as well that, as already mentioned a few times in this chapter, the game development process does not end after the (possible) global release following the soft launch. In fact, the game will be live and continually adjusted on a fine-tuning level. As the CEO of a small company described:

> "With free-to-play the game is never finished, so hopefully we are allowed to do this the next three to five years, to redo the balancing and redo the balancing and redo the balancing. However, there are some pillars, when you release the game, you shouldn't touch. Because there are some pillars where you know, there will be a shitstorm, in the community, when you touch these kinds of pillars." (INTB5, female, 40s)

Similarly, a game designer explained that when a game is live, "we keep on improving, and changing features" and that therefore the team even grows, as "you need lots of people to keep the game running" (INTB1, male, 20s). Of these people probably most notable are the community managers, who only come in once the game is live to manage the communication with the player community. But also, the game designers, programmers, producers, and data analysts are still concerned with the game during live operations (in the next chapter I will further elaborate on the different roles and their responsibilities).

However, describing all practices during live ops in detail would be beyond the scope of the thesis, since the focus of this thesis is game production rather than the management of live games. That is, it is about the way games come into being, which includes new games but

also new features in large live games, as “making a new feature is almost equivalent to making a new game” (INTB1, male, 20s). In general, the fact that live operations exist as a phase again demonstrates that free-to-play development is a never-ending, data-driven process.

4.7 Conclusion

In this chapter, I have argued that the development of free-to-play games is profoundly different from the development of games without microtransactions. The focus of the chapter was on the development process, including different phases, routines, and activities, thereby adding another perspective to game production studies’ more common angle of individual people and their roles, tasks, and attitudes, or the macro-forces at play in the broader industry. After sketching the contextual and theoretical backdrop with the help of design research literature, describing game development processes as iterative processes (i.e., containing multiple design cycles and instances of testing) that simultaneously consist of more or less distinguishable stages (i.e., concept phase, production phase and soft launch), I have shed light on two trends that are particularly intertwined with the free-to-play monetization model: Data-driven design and the GaaS model. The former entails large sets of user data that feed into the design of a game, which is particularly relevant for freemium services that, in order to generate profit, are dependent on such data to find and cater for the typically small part of users willing to spend money. Games developed within the latter, that is, the GaaS model, are not a product that is bought and/or consumed once, but rather a service that is used over a longer time period, and paid for (if at all) through a series of possible microtransactions. Both trends are observed not only in digital games but also in software development more generally, pointing at free-to-play’s rootedness in the areas of both media production and software development.

Due to game development’s multifactorial character, which sometimes leads to a “convergence kludge” (O’Donnell, 2009), game development processes are not straightforward to grasp. This goes for all games, that is, both with and without microtransactions, but free-to-play augments this complexity, because yet another component, namely freemium monetization mechanisms, is added to the mix. Therefore, by focusing on the activities and temporal dimension of game development in the free-to-play realm, I have unpacked where and how the monetization model intersects with the game development process. The interview findings show that in free-to-play games, the

monetization model is an integral part of the game design and permeates all phases of the development process. As such, it pushes the game design in a 'monetization-friendly' direction, that is, game mechanics or genres that are not suited for the free-to-play model are either not considered in the first place or discarded in the process, or at the latest when the metrics predict the game to be non-profitable.

This plays out differently in the different phases of free-to-play game development. As typically a given upfront for developers, the freemium monetization model is a design constraint from the beginning. As mentioned, when conceptualizing a new game or game feature, developers need to take into account the potential monetizability of the core mechanics and accordingly 'think monetization into the loop'. Accordingly, genres—and their accompanying typical monetization types—that are known to monetize well are preferred to more experimental ideas. Moreover, the games-as-a-service model requires monetization mechanisms to be repeatable and inexpensive in terms of production, which further reduces the range of possibilities for free-to-play game designers to apply novel game ideas and according monetization mechanisms.

As an important element in the widely practiced and highly favored iterative design process, prototyping the initial game concept ideally also enables the monetization to be tested. However, it is hard to simulate monetization in first versions of the game, not only due to the lack of a functioning payment system in such prototypes, but also due to the difficulties to imitate the context in which the game eventually will be played, which makes it hard to test players' willingness to spend money on in-game purchases. Aiming to reduce financial risks and unforeseen game dynamics, in early game prototypes developers apply strategies such as finding 'proxies' for the monetization in the form of player motivation and retention. As such, finding the 'fun' of a game, has slightly different desired implications in free-to-play development, in that keeping players in the game (retention) means exposing them to more instances of monetization, thereby increasing the chance for economic gain. Game developers also—and perhaps more importantly—closely examine and monitor other free-to-play games in the same genre, platform or target group. This type of "benchmarking" enables them to reuse best practices in terms of game design and monetization mechanisms.

Then, as soon as the state of the game allows for it, user data are collected and analyzed and small qualitative playtests are replaced by larger user tests and data-driven design. In the production phase, which, among other things, serves to balance the game

design (also in games without microtransactions), mathematical formulas facilitate monetization balancing and pricing. Finding the right balance between monetization and design is difficult, and even harder in multiplayer games, where the game should offer a level playing field for paying and non-paying players. In this regard, traditional game design approaches such as flow theory are leveraged alongside metrics-driven design. When it is impossible to draw conclusions merely from the metrics, developers resort to complementary qualitative methods such as asking or observing players directly. This again illustrates how in free-to-play game development two worlds come together: Game design as creative media production and freemium business models in online services that leverage data-driven practices—with the aim to find a minority of users willing to spend money.

By the time a game goes into soft launch, game design and monetization are connected and balanced in way that is believed to be optimal. But tweaking is still possible, that is, if results are not as expected, the backend of the game is designed in such a way as to facilitate fine-grained balancing and pricing. Studios typically conduct intensive AB testing during this phase in order to find the optimal version of the game. In the end, the ensemble of collected metrics should paint a convincing picture of the game, that is, retention, conversion rate and average spending ideally all indicate a successful and long-lasting game-as-a-service. If, however, even after tweaking, it turns out that the marketing costs to acquire players (i.e., costs per install) exceed the average revenue generated per player, the game project might be canceled altogether, or in some cases sold to another company. In fact, it is not uncommon that games are canceled after soft launch.

As these findings about the free-to-play development process and the way monetization is connected to game design reveal, free-to-play production is characterized by strategies of risk-avoidance. This in itself is hardly different from e.g., the AAA sub-sector (e.g., Alves & Roque, 2007; Kline, Dyer-Witheford, and De Peuter, 2003; Nieborg, 2014). However, whereas in AAA games risks are typically minimized by licensed intellectual property, for instance in the form of franchises and sequels (Nieborg, 2014), in free-to-play mobile game development it is done by closely monitoring the market and, in later stages, metrics-driven design as well as mathematical formulas and marketing techniques to define the right pricing.

To better understand why risk reduction is so crucial for free-to-play games, one should zoom out from the practices of game developers to the *platform logic* (Kerr, 2017), in which the app stores are the *central brokers* (as explained in the previous chapter). As the

number of apps and games in the biggest app stores is immense and continues to grow, visibility is key to a game's—as well as any app's—success, and game developers and publishers need to market their games accordingly (e.g., Poell, Nieborg, and Van Dijck, 2019). Due to this oversupply of apps on a hypercompetitive market (Castendyk & Müller-Lietzkow, 2017), marketing expenditures make up a considerable part of the overall budget, which leaves a smaller portion for the actual development of the game. Moreover, a sense of familiarity through proven monetization mechanisms and genre conventions should keep players in the game as long as possible.

All in all, I have shown that considerations around freemium monetization mechanisms have major implications for the development processes of these games. I have analyzed the production of free-to-play games from the angle of creative collaborative processes, including the phases and typical activities involved. The chapter thereby highlights the routine-like practices and materiality of free-to-play game development in particular, and contributes to insights into the interplay of creative and monetary considerations in media production more generally. In the next chapter, I will continue to analyze free-to-play game production, but take an approach more common in game production studies, that is, focusing on the people involved in it. I will address questions such as: To what extent are there specialized game professionals that are concerned with the monetization design? And which other roles—traditional as well as emerging ones—take up monetization-related tasks?

5
The (changing) profession of free-to-play game developers: The role and expertise of monetization

5.1 Introduction

In late July 2019, directly after its release, the newest game in the Wolfenstein series, *Wolfenstein: Youngblood* (MachineGames and Arkane Studios, 2019) was the target of criticism from gamers who were complaining about its inappropriate microtransactions. Blogger Joshua Riviera wrote the following about it on gaming website Kotaku:

> "Wolfenstein: Youngblood is a video game with microtransactions, which is another way of saying that there are some who will object to its existence out of principle. Some people became so angry about microtransactions in the new game that they harassed one of its lead level designers, Mitja Roskaric, on Twitter, causing him to have to lock his account.
>
> In response, developers across the industry tweeted out messages of support that also noted the ridiculousness of the situation, since level designers have almost no input in how games are monetized." (Rivera, 2019)

The article linked to a Twitter thread (Beigi-Cooper, 2019) that discussed to what extent a level designer could be held accountable for the microtransactions in the game. Some argued that he was representing his company on social media and that, especially as a *lead* level designer, he should be knowledgeable about the microtransactions in the game, whereas others thought he was not at fault, as his role in the game development process was so far detached from the monetization. A look into *Youngblood*'s in-game credits does not provide one with more insight, as there are no job titles listed that could easily be associated with monetization. This example sheds light on the general lack of knowledge about role division in game development regarding monetization as well as studios' unwillingness to disclose information about this still contested part of their games (see chapter 2). In this chapter, I will address this issue by going into the disciplines, roles, and team composition of the development of games with microtransactions. As such, the central question in this chapter reads: *Who creates the monetization?*

In the previous chapter, I have shown how the production of free-to-play games is characterized by monetization being profoundly integrated into game design during all phases of the development process. This naturally also has implications for the people involved in this

process, that is, for team composition and role division. Academic research on the specific team composition of free-to-play development and the role or expertise of monetization is scarce. Accounts on this subject come mainly from industry experts, for instance, from professionals that work as monetization experts themselves and promote the monetization model (e.g., Luton, 2013). As such, these sources are part of "shadow academy", that is, "the industry sector that mirrors and mimics scholarly practice" (Caldwell, 2014, p. 727) rather than academic research. As discussed in the former chapter, Jennifer Whitson (2020) also problematizes industry handbooks and *postmortems* for presenting a neater picture of what game development actually involves. Therefore, I will mainly address what has been written by game scholars on team composition in game development in general, while addressing the monetization expertise in light of my empirical findings.

The three roles that traditionally belong to the core development team are *design*, *programming,* and *art*. A fourth role of *producer*, who manages the temporal, human, material and financial resources, exists just outside this core triad (Whitson, Simon, and Parker, 2021). Next to these main professions, additional roles exist in specific constellations or production logics, such as audio designers, quality assurance (QA) testers, and data analysts. Using this already available classification of roles, I will analyze my interview data to find out about the specific role or expertise of monetization within free-to-play game development. The interview data will be complemented with a content analysis of 100 job postings from game studios that contain the term monetization.

As I will show, monetization-related expertise might be concentrated in a specific person called monetization expert or monetization designer, but it can also be divided among the existing team members, such as the designer, producer, or data analyst. This variant of monetization expertise as an integrated task in the other disciplines is preferred by the interviewees, as it is believed to enable the most natural merging of game design and monetization. After looking into the disciplines and roles, I will focus on the skills and educational backgrounds that are involved with designing monetization and microtransactions. The empirical findings show that an analytical mindset, an extensive knowledge of other (free-to-play) games on the market, and a degree preferably in STEM, finance and economics, or business are key to this. In the last section of this chapter, I will address possible tensions between different roles in game development. These sometimes occur between roles designated as *creatives* (e.g., designers, graphical artists) and *suits*, or

non-creatives (e.g., managers, producers). I will especially discuss possible tensions between monetization and game design or gameplay. But I will start by elaborating on the concept of role in creative processes and in the games industry in particular.

5.2 The concept of role and the games industry as occupational community

In this chapter, following Wayne Baker and Robert Faulkner (1991), I understand role as a "bundle of norms and expectations—the behaviors expected from and anticipated by one who occupies a position (or status) in a social structure" (pp. 280-281). Role is something different from position in the sense that it is a "classification across social structures", while position is "a location in a particular social structure" (p. 281). For instance, in a particular game studio, a lead game designer and a level designer may both have the *role* of designer—which they could execute at another company or in another layer of the organization, whereas the lead game designer's *position* in the studio is more static and might be on the same organizational level as, for instance, the position of lead artist. As such, I assume that roles are not enacted from positions in a fixed way, but that they are also used to *create positions* and are *enacted into* positions, which I will show with the help of the empirical data in this chapter. This also means that roles are viewed in light of the actions taken by people who occupy them, while acknowledging that roles can "facilitate continuity of behavior over time" (Bechky, 2006, p. 5).

However, Baker and Faulkner's as well as Beth Bechky's research concerned film productions, which are often single-project organizations, meaning movies are typically made by temporary organizations created for a limited purpose. Therefore, positions and relations must be actively constructed as participants "struggle to enact roles and pursue careers" (Baker & Faulkner, 1991, p. 283). Even though the single-project organization might be a less dominant organizational form in the games industry, careers in the games sector are nonetheless described as boundaryless (Weststar, 2015), which means game workers rarely stay with one employer throughout their careers. As such, rather than firms sustaining and invigorating career identity and motivation, occupation forms "the nexus of competency and identity development" (Weststar, 2015, p. 1238), which resonates with Bechky's (2006) notion that the reproduction of role structures can provide continuity in project-based temporary organizations (p. 4). This appears to apply beyond media production as well: Robert Drazin,

Mary Ann Glynn, and Robert Kazanjian (1999) argue that in complex, large-scale, and long-duration organizational projects, "although individuals may be members of an organizational work unit and a cross-functional team, they may also situate themselves in terms of an occupational identity" (p. 4), which can help them to "develop systems of meaning about creative action" (p. 7). In other words, occupation affects—arguably more so than the company—the way game developers perceive themselves, communicate to peers, and search for positions.

Johanna Weststar (2015), moreover, argues that video game developers can be regarded an occupational community, as the four characteristics of this concept apply to the sector: 1) Video game developers have boundaries of who belongs and who doesn't belong, for instance, by having a shared jargon and insider knowledge, 2) they share a social identity that is drawn from their occupational role, 3) they take each other as their primary point of comparison when engaged in self-reflection, and 4) they maintain extensive social relations that go beyond mere contacts at the workplace. These features of an occupational community correspond to how Baker and Faulkner (1991) regard role, that is, as a resource in two ways: Firstly, as a social classification, role is a way to claim citizenship in a social community, coming with rights and obligations (corresponding to the "belonging" of an occupational community) and secondly, role grants access to a variety of resources, providing claimants and incumbents with the means (i.e., cultural, social, and material resources) to pursue their interests (p. 284). Especially the social resources are reflected by Weststar's (2015) observation of the games industry, as coworkers have an important social function.

Weststar however places a caveat when considering the games industry as an occupational community, based on her empirical findings: It might not be a homogeneous community but rather a community that is "multi-faceted or ha[s] a changing face" (p. 1248). As a possible explanation for this, she mentions the various societal issues the games industry grapples with, not only regarding the controversial role of games as cultural products (e.g., alleged negative effects such as aggression), but also with respect to issues surrounding working in the games sector, such as crunch time and (a lack of) unionization. This causes video game developers to not have a unified voice at all times and to "engage in individual and collective sensemaking activities" (p. 1248). Furthermore, Weststar suggests a division of game developers along genre or sub-sector lines, particularly between casual games versus big budget *AAA* titles and mainstream versus independent games (p. 1249). In a similar vein,

our study into practices of imitation in the German games sector found different norms and strategies between (self-identified) indie game developers and mobile casual game developers (Van Roessel & Katzenbach, 2020). This might hint at specific occupational community of free-to-play developers. In addition, and most relevant to the focus of this chapter, Weststar (2015) mentions a possible division between occupational roles, as she identifies "sub-grouping within the OC [occupational community] vis-à-vis occupational specialty" (p. 1249). For instance, she observed differences in use of language and ideology between programmers and artists as well as between those in the "core triad" and quality assurance testers. She, therefore, calls for more academic attention to the possible "nested collectives" of specialties within the broader occupational community (p. 1249). In this chapter, in order to start to address this research gap, I will look at the extent to which designing the monetization of a game is an occupational role in itself, which is possibly enacted into positions. Yet, before explaining how I approached this question, I will firstly describe the typical team composition and roles within game development, so that the empirical findings can be better contextualized.

5.3 The roles and disciplines in game development

Even though games are an increasingly acknowledged cultural phenomenon and a mainstream entertainment market, game development processes and day-to-day practices of game workers are generally a black box to anyone not directly involved in it—including their own audiences (Deuze, Martin, and Allen, 2007; O'Donnell, 2014; Whitson et al., 2021). As elaborated in chapter 3, game production in general and team composition in particular are also understudied in game studies, even though this is currently changing (Kerr, 2017; Weststar, 2015). Yet, taking a look at game teams is worthwhile: Due to the fact that games are both audiovisual media and pieces of software, game development is hardly ever a one-person endeavor and typically requires multidisciplinary teams (Fullerton, 2014; Kerr, 2017; Whitson et al., 2021). Consequently, in this highly collaborative and distributed process, people from diverse professional backgrounds are involved (Kohler, 2012; O'Donnell, 2009). According to Tracy Fullerton (2014), creating a game can be "one of the most intense collaborative processes you'll ever experience" (p. 7). Team sizes vary to a great extent, depending on, among other things, genre, technology, budget, and studio size. To illustrate the range: in the 2019 IGDA Developer Satisfaction Survey, 41% of respondents reported they

worked in teams of fewer than ten people, 29% in teams of 11-50 people and 30% worked in teams larger than 50 people[56] (Weststar, Kwan, and Kumar, 2019). Also, the number of team members may vary throughout the production process, especially in larger projects, as teams might grow when development moves from concept and pre-production to production and then shrink again in the final post-production phase (Kerr, 2017; Kohler, 2012). Generally, however, independent game (*indie*)[57] development is associated with smaller production budgets and corresponding team sizes (Van Roessel & Katzenbach, 2020; Whitson et al., 2021). Yet, fast changes in these and other factors tied to online networked production have created "an unstable ecosystem that makes it difficult to generalize about the organization of game development work" (Whitson et al., 2021, p. 3). Here I will go into the most common disciplines in game development, while acknowledging the heterogenous practices across the multifaceted global games industry (Deuze et al., 2007; Whitson et al., 2021) and the various production logics (Kerr, 2017).

5.3.1 The core triad: design, programming, and art

The three key disciplines in digital game development correspond to a game's main components: game design, programming, and art (Tschang, 2005; Van Roessel & Van Mastrigt-Ide, 2011; Whitson et al., 2021). Though emphases vary, any digital game consists of all these three components. Ideally, they are seamlessly united, so that when a player interacts with the software, a coherent and functioning game experience emerges. Therefore, designers, programmers, and artists need to collaborate closely in order to create this experience together. In large teams, it is usually the leads (i.e., design lead, art lead, tech lead) that coordinate the development process, who in turn communicate with their teams.

Due to the intertwinement of game design and monetization in free-to-play games, game design is likely the role in the core triad that is most relevant to monetization (the empirical findings resonate with that, as I will explain in the results section below). Therefore, I will firstly

[56] Note that this was not a representative study.

[57] Although often juxtaposed to large AAA productions and commercial casual game development, it has proven hard to define indie game development and indie games (see also chapter 2 for an explanation of how the games industry can be divided in different sub-sectors). Formally, independent game development refers to financial independence from, for example, a publisher, but the term is also used to designate game development that has less-constraining external financers, who thus leave leeway for a development team's own preferences. Indie development is generally associated with small budgets and accordingly small teams, innovative mindsets, a great level of creative freedom, success parameters that go beyond commercial viability and even a specific graphical style (cf. Juul, 2014; Lipkin, 2013; Martin & Deuze, 2009; Whitson et al, 2021). In Germany, indie game development is a growing sub-sector (Van Roessel & Katzenbach, 2020).

briefly address the disciplines programming and art, and then go into game design more elaborately.

5.3.1.1 The programmer

A key part of digital games is their programming code, that is, the source code underlying the game, which turns the game rules into working software. As the earliest digital games hardly contained any graphics or sophisticated fictional worlds, they were frequently made only by programmers, making programming arguably the original discipline of digital game development (cf. Kline, Dyer-Witheford, and De Peuter, 2003). Nowadays, the technical implementation of a game includes sub disciplines such as high- and low-level coders, network and systems engineers, database programmers, computer hardware support, and artificial intelligence (AI) (Fullerton, 2014; Ruggill, McAllister, Nichols, and Kaufman, 2017). Accordingly, programmers typically have a background in computer science or a technical game development study line (Ruggill et al., 2017). Game programmers usually work with specialized game engines such as the Unreal Engine (Epic Games) and Unity (Unity Technologies), while common programming languages include Python, C++, and Java.

As their main task is to translate the game design into technical solutions, they contribute to the project in an executive rather than conceptual way. However, with their specialized and essential skillsets, programmers hold a key position in the team. For instance, they are needed to assess a game concept's technical feasibility early in the process. Especially programming leads and technical directors of bigger studios can often negotiate directly with publishers and speak at industry events (Castendyk & Müller-Lietzkow, 2017; Kerr, 2017).

5.3.1.2 The game artist

The second component and corresponding core discipline of game development is called game art, which contains all visual elements of the game (Fullerton, 2014). The graphics and sounds together form the "fictional world" of the game (Juul, 2005).[58] The fictional world includes the game's setting, characters, and narrative backdrop, and defines how the player can access the abstract game mechanics and rules. Therefore, game art needs to be carefully aligned with the game design and programming code.

[58] Note that audio is mostly seen as a discipline separate from game art, but is sometimes also subsumed under it.

The people responsible for the game art and/or fictional world are called (game) artists, who come in many different shapes. Concept artists, for instance, are concerned with (first) visionary sketches of the overall feel of the fictional world, UI/UX[59] designers are responsible for a game's interface elements, and the main task of 3D artists is to create 3D models of game characters and objects. Other game art specialists include animators, illustrators, and character designers. As with the other core disciplines, the kind of artists that are needed in a project vary along different genres and platforms. Game artists' educational backgrounds might be specialized game art programs, traditional art education, or multimedia graphics programs. Especially in AAA development, art teams tend to be big and artists outnumber designers and programmers (Fullerton, 2014).

5.3.1.3 The game designer

The third main component of a digital game is its design. This includes the mechanics, that is, the way a player can interact with the game (cf. Sicart, 2008), and the rule system, which together result in gameplay when the game is 'in action' (cf. Hunicke, Leblanc, and Zubek, 2004). The game designer is the person typically responsible for conceptualizing and implementing this (Dovey & Kennedy, 2006; O'Donnell, 2014), and when practicing a player-centric game design approach, her main task is to be an "advocate for the player" (Fullerton 2014, p. 3). The occupation of game designer existed already prior to the existence of digital games, and rose with the emergence of board games as proprietary goods, that is, when the idea of a game as a *product* was introduced (Stenros & Sotamaa, 2009). Later, the role gained more prominence when digital games' commercial success stagnated as a result of, among other things, the abovementioned dominance of programmers in the creation of games, and "game designers had to lift games out of the commercial mediocracy and the hands of 'technologists' into an aesthetic experience" (Kline et al., 2003, p. 98).

As such, game designers are sometimes compared to architects in the sense that they "plan the structural elements of a system that, when set in motion by the players, creates the interactive experience" (Fullerton, 2014, p. 2). Designers are expected to deal with "psychological issues like frustration and reward, levels of challenge and duration of play" and need an understanding of player motivations (Kline et al., 2003, p. 98). Especially in "the early stages of game development, design takes a leading role, identifying the rules and systems, or

[59] UI stands for User Interface, UX for User Experience.

simply mechanics, that will govern the game space" (O'Donnell, 2014, p. 48)—as I have shown in the previous chapter.

Therefore, in the case that someone is publicly known for creating a game, it's usually the (lead) designer (Deuze et al., 2007), and it is mostly the game designers "who occupy the privileged position as 'author'" (O'Donnell, 2014, p. 45). Moreover, even though game design is relatively new as a separate discipline in digital game development, it has rapidly become the profession that most young game developers aspire (p. 45). As with the other disciplines, the exact tasks and skills of a game designer show a great variety depending on game genre and size of the project. Designing a multiplayer online game, for example, demands other skills than designing a 2D match-three game or first-person-shooter, and requirements for game designers differ accordingly. This also leads to various possible specializations for game designers, such as narrative or system design, which is further explored below.

Game designers, hence, come from diverse educational backgrounds, among which are dedicated game design study programs, but also art education or technical programs, and even self-education (O'Donnell, 2014). As such, their main commonality is their "love of and interest in creating games" (O'Donnell, 2009, p. 5). A look ahead at the job postings collected for this chapter illustrates the diverse and not necessarily formally educated profile of the game designer: The 24 (of 100) job postings for game designer positions display the lowest academic requirements compared to the requirements for the other positions.

According to Fullerton (2014), key skills for game designers include creativity, the ability to communicate clearly and effectively with everyone working on the game—particularly 'translating' between the different 'languages' spoken by the different team members—streamlining the iterative design process, being inspired by phenomena inside and outside game contexts, as well as having an "unerring sense for good gameplay" (pp. 6-10). In his ethnographical research among game developers, Casey O'Donnell (2014) found that "designers frequently had skills that seemed to transcend disciplinary boundaries, including analytic skills that allow them to deconstruct games, examine their core elements and mechanics and determine the underlying rules and structure of a game" (p. 45). In the results section of this chapter, I will elaborate further on the necessity for game designers to have analytical abilities with respect to designing monetization. Sub-disciplines of game design include level design and economy design.

With the recent trend toward "rationalization" of game design (Tschang, 2007), defined as the "predominant focus on business interests or productivity-oriented production processes, usually at the expense of creativity," (p. 989) and data-driven design (Kerr, 2017; Whitson, 2012; Whitson, 2019; see also chapter 4 in this thesis), the game designer's creative leeway seems to decrease. As Aphra Kerr (2017) describes it, the customization of game design resulting from data analysis in free-to-play games "is in stark contrast to the strong upstream designer role often associated with the cultural industries" (p. 16). However, empirical research into this changing role of the game designer is hitherto limited. A qualitative study with designers of casual games[60] by Laureline Chiapello (2016) forms an exception. Chiapello found two different ways casual game designers frame their own roles: as designer-gamers and designer-agents. Whereas the former are mostly concerned with making 'good' games that they would like to play themselves, the designer-agents regarded themselves rather working on behalf of others, such as the publisher or the client. Their goal was, rather than to make a new game, to "complete the objective" (p. 52).

Generally, the duties and tasks of game designers seem to be in flux more than the other disciplines due to the changing landscape of game consumption and production, and even more than with the other disciplines, the way this occupational role is carried out depends on genre and sub-sector. I will address this (changing) role of the designer in the free-to-play realm in light of my empirical findings in the section below about the skills and expertise needed for monetization.

5.3.2 The Producer

A fourth common role—which is also found in other creative industries such as filmmaking and music—is the producer. Game producers are, just as their counterparts in other sectors, mainly concerned with the allocation of resources: temporal, human, material, and financial (Fullerton 2014; Whitson et al., 2021). According to Judd Ruggill, Ken McAllister, Randy Nichols, and Ryan Kaufman, (2017) "the position [of producer] is organizational by definition, and therefore heavily dependent on project management tools […] and practices to coordinate disparate sets of data related to personnel, milestones, and timelines into a larger picture that visualizes everything from workflow to profit margin" (p. 168). Producers hold a

[60] As addressed in chapter 2, casual games are games with short playing sessions targeted at a broad audience, with low entrance barriers. See Juul (2010) for a more elaborate explanation of the term casual games.

key role in holding the team together and facilitating communication between the disciplines. Especially, the producer works closely with the (lead) game designer (Fullerton, 2014). As such, producers act "as a key interface between the 'inside' of the game development triad, and the 'outside' of the much larger global production infrastructure that includes publishing, financing, regulation, distribution, marketing, quality assurance, physical manufacturing and community support" (Whitson et al., 2021, p. 609).

The tasks of a producer vary in scope and degree, and sometimes in small teams there is no dedicated producer, for instance when producer and designer are united in one person (Fullerton, 2014). The importance of a producer might also be downplayed to the outside world, especially in indie game development, to maintain the narrative of a small "garage-scale" game production (Whitson et al., 2021). The 31 job postings for producers in the content analysis sample show the great variety of the skills producers are required to possess, including 'soft skills' such as interdisciplinary collaboration, but also data analysis and proficiency with specific software packages. As mentioned above, one of the producer's responsibilities is keeping an eye on whether and how the game is making a profit. As such, as I will show in the results below, producers are typically—either directly or indirectly—concerned with the game's monetization.

5.3.3 Beyond the core disciplines

Even though the three core disciplines and the producer are the most common roles, many game development teams have roles beyond them. There are, to the best of my knowledge, no academic publications that provide an exhaustive list of all disciplines in game development.[61] This hardly comes as a surprise, as in the unstable, ever-in-flux games industry, a suchlike exhaustive list would become obsolete quickly. Moreover, sometimes it is not clear where the line between game development and supporting or adjacent industries is drawn (cf. Castendyk & Müller-Lietzkow, 2017; Kerr & Kelleher, 2015; Ozimek, 2019).[62]

[61] German trade association Game presents the different occupations ("Berufsbilder") for aspiring game developers on their website *Game Campus* as follows: Community Management, Game Analysis, Game Art, Game Design, Game Music Composing, Game Producing, Game Programming, Game User Research, Level/Content Design, Localization Management, Narrative Design, Product Management, QA Management, Sound Design, and Technical Art (Game Campus, 2022).

[62] As explained in chapter 2, this thesis focuses on the part of the games industry that concerns game production (i.e., developing games). Other main areas next to development are publishing, distribution and game platforms, which are not necessarily all involved for a single game (e.g., when a studio self-publishes their games, a publisher might lack).

In their book *Inside the Video Games Industry*, Ruggill et al. (2017) present 18 interviews with game developers with extensive track records in the games industry. The disciplines they include are—apart from the four mentioned above—audio, quality assurance (QA), and business.[63] Somewhat similarly, the aforementioned IGDA 2019 Developer Satisfaction Survey identifies, next to the core triad, management (including producers), audio, QA, admin, and "other" (Weststar et al., 2019). In her widespread handbook for game designers *Game Design Workshop*, Fullerton (2014) mentions next to the core roles those of QA engineers and "specialized media", which includes jobs such as *sound designers*, *copywriters*, and *motion capture operators* (p. 396). She summarizes them under "specialized media" because they are "too numerous to list" and are "usually hired for a short period of time on a contract basis, rather than coming on as full-time employees" (p. 396).

For instance, *game audio* includes the (non-linear) music, sound effects, and dialogues of the game (Ruggill at al., 2017), requiring close collaboration with both the artists and the programmers (Long, 2012). The term *quality assurance* refers to the testing of the game, which plays an important part in iterative design processes (see previous chapter). *Playtesters* or *quality analysts* are tasked with assaying the aesthetic, technical, and/or interactive elements of a game for possible improvement during various stages of development (Fullerton, 2014; Ruggill et al., 2017), which is sometimes outsourced to external studios (Fullerton, 2014; Ozimek, 2019). Furthermore, with the category *business*, Ruggill et al. (2017) refer to support positions that are not typically involved in day-to-day game development and thereby are part of "the organizational scaffolding of the industry rather than its explicitly creative or technical side" (p. 277). This includes legal, human resources, finance, information technology operations, and market and public relations. In addition, in major productions, creative roles like *voice actors* (Švelch & Švelch, 2022), *screenwriters* (Bernardi & Hoxter, 2017) and *motion capture actors* might complement the team. Even though in some cases important to a game's publicity strategy (for instance, well-known actors performing the voices of game characters), these roles will not be further elaborated upon, as they are less relevant to the monetization design.

[63] The book indicates that distribution and publishing are left out as they are beyond the scope of the study.

5.3.3.1 Emerging roles

In addition, the growing games-as-a-service paradigm as described in the previous chapter has brought about new responsibilities and roles, of which community managers are an example, as part of a bigger group of *live developers*, that is, game professionals that still work on the game when the game has gone live (Dubois & Weststar, 2021). More broadly, according to Kerr (2019), "these shifts have led to new market entrants, including digital distribution companies from outside of the games industry," which also meant that "new occupations have been created that either did not exist before, or existed in highly informal ways" (p. 413).

Although research into the various disciplines in the games industry, especially outside the core triad, is still relatively scarce, there is a growing body of research into specific roles and tasks. This research mostly looks into supportive rather than creative, sometimes designated as "below-the-line" roles, as they are less visible than others (Caldwell, 2013). Such roles deserve attention for various reasons, for instance because workers are marginalized and/or they work under precarious conditions, such as QA testers (Bulut, 2020; Ozimek, 2019) and community managers (Kerr & Kelleher, 2015). The latter, for instance, are tasked with communicating with the player community on social media and game-related forums, which is particularly important in free-to-play games-as-a-service, because retailers or distributors may lack to take up this task and players need to be kept engaged over time (Van Dreunen, 2011). Even though this job requires passion, a willingness to work outside office hours as well as strong diplomatic skills, the work of community managers is hardly visible und paid less than other game development disciplines (Kerr & Kelleher, 2015).

Such unstable emerging roles and precarious working conditions are not limited to the games industry. In many contemporary media industries, which are all increasingly digitalized and data-driven, media workers experience their work as precarious and fragmented (Gill, 2010; Deuze & Prenger, 2019). As the media industries are shifting as a whole, media practices are "both accelerating and being supplemented by a wide array of new roles, skills, and competences, contributing to an ongoing destabilization process both felt and experienced by practitioners" (Deuze & Prenger, 2019, p. 15).

But rather than focusing on precarious work specifically, this chapter takes a more exploratory approach of taking stock of the new occupations in free-to-play game development. It thereby aims to contribute to the understanding of emerging roles and tasks outside the core triad of game development, focusing on the implications of integrating monetization techniques into the game experience. Two important roles in mobile free-to-

play games-as-a-service are *data analysts* and *monetization experts*. Therefore, I will discuss these roles below in the light of my empirical findings.

5.4 Method

In order to answer the central questions in this chapter, I conducted a mixed methods approach consisting of two parts: semi-structured interviews and a content analysis of job listings. The first part focused on video game professionals' reflection of monetization expertise and its role in video game production. The second part, which was partly inspired by the abovementioned previous research into the job requirements of community managers (Kerr & Kelleher, 2015), explored how monetization expertise as a job task and skill requirement is communicated toward a very particular audience of potential employees. Combined, these approaches aim to compensate for the existence of "shadow academy" (Caldwell, 2014) by looking at two specific contexts, which arguably highlight different aspects of in-game monetization.

The interview data I use in this chapter are nine semi-structured interviews with game professionals working for six different Germany-based game studios. The interviews were conducted in 2017, and transcribed and thematically coded using MaxQDA. The interviewees were all working on free-to-play titles and include two game designers, two producers, a product lead, a head of games, a studio game design director, a creative director, and a freelance monetization consultant. The interviews were conducted in English and lasted about 90 minutes each. An overview of all interviewees can be found in appendix A.

Additionally, I analyzed 100 job descriptions that mentioned the term "monetization" (or "Monetarisierung" in German), which were collected between October 2018 and July 2019. The content analysis was conducted together with Jan Švelch, a postdoc researcher in game production studies at Tampere University at the time of the analysis. We searched job posting aggregators Gamasutra,[64] Games Jobs Germany, Glassdoor, and Indeed and looked through job offers from the major international video game companies: 2K Games, Activision Blizzard, Electronic Arts, Epic Games, Ubisoft, and Zenimax. The sample included positions located in 9 different countries (out of which 67 were in the USA, followed by 13 in Germany) and offered by 41 companies (the most frequent employer was Electronic Arts with 22 listings, followed by Activision Blizzard and Ubisoft with 8 job offers each). Appendix B provides an

[64] Since 2021, Gamasutra goes by the name Game Developer.

overview of the sample. We then conducted a content analysis (Krippendorff, 2004) with a job description as a coding unit. The final coding was preceded by a pilot analysis with 10 units and two rounds of intercoder reliability tests, both times on a randomly selected sample of 50 units (50% of the whole corpus). We iterated on the operationalization of individual variables to improve the reliability scores and eventually dropped 3 variables out of the original 16 due to unsatisfactory agreement rates. This resulted in 14 variables that reached scores of intercoder reliability with individual levels of Krippendorff's Alpha above 0.66. The coding was then distributed equally among Jan Švelch and me. The coder bias was in this case justified by the coders' knowledge of the complex realities of video game production (cf. O'Donnell, 2014).

In the analysis for this chapter, I will include the variables concerning the game development role and job title, the level of required degree, the degree type, and six different skill requirements: collaboration & communication skills, data analysis, analytical mindset, game design, market knowledge, and passion for games.

5.5 The role and expertise of monetization

Both the interview findings and job postings show that monetization design is a task that comes in two variants: as a duty integrated into or combined with another discipline—most likely the game designer or the producer—and as a specialized role. In the following I will address both variants, starting with the specialization of monetization design.

5.5.1 Monetization specialists

Of the 100 game industry job listings collected with the keyword "monetization", 13 were vacancies for specialized monetization experts. These postings displayed a variety of titles such as "monetization coordinator", "monetization designer", and "monetization specialist". The latter, for instance, had to "ensure integration of monetization design into online games" (#4, Ubisoft, Montreal, CAN) as their overall main responsibility. Similarly, among the main tasks for a sought monetization designer, one was to "create monetization strategy for core products as well as affiliated products" and also to "work with the rest of the Design Team on how to make monetization a natural and integral part of all products" (#81, MovieStarPlanet, Copenhagen, DNK). A monetization designer for *Tom Clancy's The Division 2* in Malmö, whose

role was abbreviated as "MTX[65] Designer", should "ensure elegant, fair and non-disruptive monetization design" (#27). In some cases, the job title included a related responsibility, like "head of live game design & monetization" (e.g., #72) or "systems and monetization designer" (e.g., #78).

The interviewees were also familiar with the role of monetization specialists. One of the interviewees was a freelance monetization expert himself, whereas many others had worked with dedicated monetization designers—both external and as part of the core team. For instance, in the case of a small Berlin-based development studio, an external consultant was engaged to help out with the monetization model of one specific project. The interviewee described the consultant's main tasks as "figuring out with every new feature coming in, how it fits in the monetization process" (INTB5, female, 40s).

In contrast, monetization experts as in-house employees seem to be more common in larger studios, which is to be expected due to a higher degree of job specialization in these companies. Accordingly, the companies in the job listings sample that were searching for monetization specialists included industry giants Electronic Arts, Ubisoft, and Goodgame Studios. One interviewee, who had worked with monetization specialists as internal employees before, indicated their job was to "balance the game attributes" and "recommend monetization opportunities" (INTB7, male, 30s).

It is important to note that having a monetization specialist does not mean that others in the studio do not need any expertise in this area; a studio might engage a dedicated monetization specialist while requiring other team members to possess monetization skills as well. For instance, the abovementioned small-studio CEO that brought in a project-based monetization expert, explained:

> "So we had [...] this double loop for the game and the second I had the vision, I brought a monetization expert on board, on a freelance basis, but on a regular basis. So it was very important for me that we have monetization expertise on board from day one." (INTB5, female, 40s)

But later she described how other team members were supposed to be well-informed about the monetization as well:

> "What [...] was always important is that not only one person has knowledge of what the monetization is about, but that everyone in the game design team and the

[65] MTX stands for microtransactions.

> producer and me understood how the monetization in our game works." (INTB5, female, 40s)

When working on free-to-play games, other disciplines might thus need (basic) monetization know-how even when there is a specialist in the team, which might be due to the necessity to communicate cross-disciplinarily about the monetization, as monetization and design are so profoundly intertwined in free-to-play games (see the previous chapter).

In sum, even though both the interviewees and sample of job postings indicate that the specialized role of monetization design is not part of the core development team, monetization design does exist as a separate role that can be executed by in-house employees—mainly present in larger companies—as well as by external consultants. As the role of monetization designer is not (explicitly) mentioned in (academic) literature on game production and team composition thus far, it is likely a role that emerged—and is still emerging—with the increasing dominance of the free-to-play monetization model and microtransactions in premium games (as described in chapter 2).

5.5.2 Integrated monetization expertise for designers and producers

In most of the interviewees' current jobs, there was no dedicated monetization designer involved, and the tasks were rather divided among the other team members. For instance, a producer working at a small mobile developer described how they did not work with a monetization specialist, because they needed to make do with existing resources and thus delegate the monetization duties to others in the team: "in big companies there are monetization designers and other types, but [...] we're a small company so everybody needs to be able to encompass the whole role [game design including monetization design], otherwise it doesn't make any sense" (INTB6, male, 30s). This corresponds with previous research which has shown that the small teams in indie studios in particular require that developers take care of a number of different responsibilities, from game design to business development and public relations (Whitson et al., 2021).

Correspondingly, only 13 out of 100 job postings in the sample were for specialized monetization roles, meaning 87 of the listings were looking for other (core) disciplines that deal with monetization in some form. These 87 job listings covered 7 different roles: producer/product manager (31), designer (24), data analyst (14), business and marketing (8), live operations (6), programmer (3), and user researcher (1). Even though the corpus of job

postings is not fully representative and the extent to which the positions focus on monetization differs from brief mentions to main tasks, it is safe to say that monetization responsibilities are handled by a wide range of game development professions. This is also illustrated by the abovementioned 'double' job titles for monetization specialists, in which monetization design is combined with systems design and live game design.

It is notable that from the core triad of design, programming, and art, mainly design was represented in the job postings sample: Only three job postings were for programmers, while game artists were absent from the corpus altogether. These numbers suggest that monetization responsibilities are hardly relevant for programmers and artists. As an exception, in one of the postings for programmers, the job title read "senior software engineer, monetization" (#28, MZ, Palo Alto, USA). A closer look at this job description showed that the studio had a special team called "monetization tech team", so monetization was in this case an essential part of the programmer's job. In contrast, in the other two programmer vacancies—both for Ubisoft Blue Byte in Mainz (GER)—the monetization-related tasks played only a very marginal role in the overall job description. The interview findings echo this: None of the interviewees mentioned monetization expertise as relevant for game artists or programmers. When, for instance, the monetization consultant was asked with which disciplines he worked most closely, he answered "producer, creative director, and designer" (INTB8, male, 50s). As such, the deeply rooted connection between game design and monetization in free-to-play games does not seem to have as far-reaching implications for the practices of game artists and programmers as it does for designers and producers.[66]

The two disciplines most likely to be concerned with monetization in the game development process, as they were most represented in the corpus, were producers or project/product managers (31) and designers (24). As mentioned above, producers and game designers come in many different shapes, therefore I will first look at what kind of designers and producers are concerned with monetization. Of the 24 job listings for designers, one specifically mentioned the monetization model in the job title, which read "F2P Game Designer" (#79, Chimera Entertainment, München, GER). The other job titles for game designers with monetization tasks also showed some patterns: Six studios were looking for a (game) economy designer, or otherwise mentioned the word "economy" in the job title (#7,

[66] As this was to be expected on the basis of, among other things, personal conversations and online accounts of free-to-play game developers about their jobs, no artists and programmers were recruited for the interviews in the first place.

#21, #40, #73, #91, #95), whereas three listings were looking for what they called a "system(s) designer" (#75, #85, #91).[67] These terms hint at a specific kind of game designer that has monetization as part of their duties, which I will address further below. As for the producers' job titles, there were two titles specifically addressing monetization: "Product Manager – F2P" (#36, 505 Games, Calabasas, USA) and "Senior Product Manager, Ad Monetization" (#68, GSN Games, San Francisco, USA). Two others also contained the word "ad", (#63, #90) but the remaining job titles did not include any references to specific monetization-related tasks.

The interview findings resonate with this connection between monetization duties and the roles of game designer and producer. However, in contrast to what the distribution of job postings would suggest, the interviewees linked monetization-related tasks and expertise stronger to game design than to production. Some interviewees did mention the importance of monetization expertise for producers. For example, the small-studio CEO said, "I am not as deep in the monetization as our producer [...], he knows it by heart" (INTB5, female, 40s). Also, a producer of a small studio generally indicated, "if you want to work with free-to-play games, you have to know monetization" (INTB9, female, 30s). But the interviewees were more explicit about monetization being a task for designers rather than for producers—or any other roles. This might be due to the fact that, besides the practical reasons of, for example, a limited budget, integrating monetization tasks in existing roles was also motivated by the idea that monetization is an essential aspect of free-to-play games. As elaborated above, game designers generally act as the visionaries or architects of the game and as such, they are also concerned with monetization. By making sure that game designers understand monetization models as well as best practices, studios are trying to increase the chance that the monetization model and gameplay are well balanced and that the game as a whole will be profitable. The monetization consultant, for instance, was "not a big fan of actually splitting" game design and monetization design (INTB8, male, 50s). A studio game design director at a large mobile game developer, who previously worked with monetization specialists but not in his current job, also had a strong vision about this:

> "Personally from a design philosophy for me, I'd like the monetization to be thought of as integrate[d into] the gameplay experience. I find it that when the role is segmented from the regular game designers then it tends to be tagged on, so like the designers design the game and then the monetization people add the

[67] Posting #91 contained both terms: "System & Economy Designer".

> monetization on top. I don't think that's the right way to make games." (INTB7, male, 30s)

Likewise, another interviewee described how his background in business helped him with his current job as a level designer, because his business skills complemented his design skills:

> "… that actually forms my personal style as a game designer. I always tend to keep business priorities, monetization (so much) in the loop at a very early stage, and for instance […] my BPU [Business Performance Unit] manager was usually very happy with my proposals and ideas, and I make sure I involve them, and I speak the same language. And that's part of, I think, being a designer at [name of the company]. It's very important to have this mindset, which would be very different […] not just from an indie company but even like a AAA firm, in which [it] is all about releasing the game at the end, and it's much more fragmented." (INTB1, male, 20s)

This exceptional combination of skills was, according to him, specifically useful in the typically small teams of the mobile free-to-play sub-sector:

> "[in] AAA companies, or console, or PC, […] if my role as game designer [is] just like combat design, pffr… monetization, who cares about it? Now I want to make sure that the sword feels good, […] and so, game designer at [name of the company] it's specifically quite involved in business usually, in my case I have even that background, but that wouldn't be the standard across the industry, the gaming industry." (INTB1, male, 20s)

Thus, according to the interviewees, it is vital for game designers of free-to-play games to possess monetization expertise. This integration is even preferred over the availability of a dedicated monetization specialist.

5.5.3 Data analysts

The empirical data, however, also point at another role for which monetization-related tasks are important: data analysts.[68] From the interview study, only the bigger studios had dedicated data analysts (just as with monetization specialists), whereas the smaller ones rather had designers and producers with basic data analysis skills. For example, according to a lead game designer at a large studio, each development team was assigned a contact person in the analytics team: "You'll have sort of a go-to person in analytics. And they might be working on two games at a time, but you have one person that you can always reach out to.

[68] Four of the interviewees, divided over two mobile game studios, were at the time of the interview working at studios large enough to have specialized data analysts.

For your numbers" (INTB4, male, 30s). According to a level designer, one of the main tasks of the data analysts at the company's "business performance unit" was "keeping an eye on progression and monetization" (INTB1, male, 20s). He explained this when answering a question about who 'knocks on his door' when the monetization of one of his levels is not up to standard:

> "Let's say [...] there's no monetization here [pointing at a point in a visualization of the development process], they [the people at the business performance unit] would be like 'Hm, very nice feature, so how is this going to affect the numbers?' And so [...] there's often someone of them, sitting around and being involved as I said, embedded in the team, throughout the whole process. [...] It allows us not to have these questions at the very end, but to always bear in mind that, 'hey, this is a commercial game, we're not just making an indie game to express our feelings, let's make sure that players are going to spend some money'." (INTB1, male, 20s)

Accordingly, out of the 100 job listings, 14 postings were for data analysts, meaning it was the third biggest category after producers and designers, and about as big as the category of monetization specialists (13). One analyst job posting mentioned the monetization responsibility explicitly in the job title: "Game Data Analyst, Monetization" (#5, NeatherRealm Studios, Chicago, USA), while two titles contained the term economist/economy: "Senior Game Economist"[69] (#38) and "Data scientist - Game Economy Optimization" (#46). It is interesting that data analysts are highly sought after, as they are relative newcomers in the game development team and not regarded part of the core team (yet). However, as I have demonstrated in the previous chapter, free-to-play game development is deeply intertwined with practices of data collection and analysis, and as such, it comes less as a surprise.

As both the interviews and the job postings show, data analysts are tasked with monitoring the monetization rather than directly designing the microtransactions. As such, the job postings for data analysts mostly did not have monetization as their focal point—even the ones having "monetization" or "economy" in their titles. The postings rather defined identifying KPIs (key performance indicators), designing and performing tests (often in the form of AB-tests or split tests, as elaborated upon in the previous chapter), and communicating the findings as their main tasks. These tasks are connected to monetization mainly by the nature of these metrics, many of which are related to the commercial

[69] In the case of this posting, we derived the category data analyst from the listing's text, as it is not directly in the title.

performance of the game (see also the former chapter). For instance, the abovementioned "Game Data Analyst – Monetization" would have to be able to "identify in-game events that affect business KPIs including revenue, retention, use acquisition, k-factor[70] and lifetime value" (#5, NeatherRealm Studios, Chicago, USA).

Just like the other disciplines in game design, data analysts are not a homogeneous group but have different specializations and working styles. One interviewed game designer of a large studio explained that he preferred having a data analyst assigned to his project that knows the ins and outs of the game:

> "Some (analysts) are more on the tech side, just someone who knows how to do SQL really well, like, help you with that stuff, and some people are on the analyst side, like, being able to interpret the data that you get. And a lot of the best analysts that I've worked with are people who really know your game really well and help you figure out what questions to ask." (INTB4, game designer, male, 30s)

So, as indicated by the interviewees as well as shown by the distribution of job listings, designers, producers, and data analysts are the roles most likely to adopt monetization duties. Yet, the specifics of the monetization tasks differ per discipline, as they are related to their roles in the game development process, that is, the focus is related to the main tasks that accompany the role. For example, a designer as the game's 'architect' might be concerned with monetization design as connected to the gameplay and overall experience, whereas a data analyst is rather involved with monetization when testing and analyzing a game. In the next section, I will take a more detailed look into the tasks and required skills that come with monetization-related responsibilities. What competencies are needed for designing, implementing, and tracking monetization?

5.6 Skills and educational background needed for monetization design

5.6.1 Analytical mindset: economy and system designers

What stands out from both the interviews and the job listings is that game professionals concerned with monetization need an analytical mindset as well as (basic) data analysis skills. This means that working in free-to-play development requires that not only the dedicated data analysts (in case there are any) are supposed to have this competency, but that other

[70] k-factor is a metric used to express the viral growth of a game or an app.

team members should be able to inform themselves about the monetization and the overall game's performance by analyzing player data as well. Moreover, prior to analyzing player data, they should already adopt an analytical mindset when conceptualizing the game. For example, the freelance monetization consultant indicated that "designers, specifically in the free-to-play space, need an analytical mind as well. They need to know numerical functions, how they can design an economy, the relationships of the numbers and [...] all these kind of things" (INTB8, male, 50s). Similarly, one of the interviewed game designers described how and what data he analyzed with respect to the monetization:

> "So I'm looking at [...] what percentage of our players are spending, what are they spending stuff on. [...] I'm not only looking at people who did convert, but also [at] the people that didn't convert, like, [...] are they hoarding a currency, like, maybe if a currency is too easy to get then people don't know what to spend it on, and then we're missing out on potential sales [...]. So [...] a lot of my queries around balancing the game are actually ignoring payers, so anyone who spends money gets not reflected in a lot of queries I (run), because I don't want to know what it's like to pay, I want to know what it's like before you pay it." (INTB4, male, 30s)

The job postings supported this general importance of data analytic competencies for people working with monetization. The general requirement for an analytical mindset was shared across the majority of the 100 analyzed monetization-related roles (78%), while the more specific proficiency of data analysis was somewhat less common, but still highly represented in the corpus (67%). This is in stark contrast to the skill of game design, which was only required in 33% of the job postings.[71]

As such, monetization is a highly metrics-driven discipline as it is directly related to business performance (which the quote of the level designer, INTB1, above about the responsibilities of the business performance unit also illustrates). Yet, not only data analysts (of whom, obviously, all were required to have data analysis skills as well as an analytical mindset), but also the monetization specialists (85%, 11 out of 13) and—to a lesser extent—producers (61%, 19 out of 31) were expected to possess an analytical mindset.

For the game designers, an analytical mindset was also important, as 75% (18 out of 24) of job listings mentioned this competency. In fact, the job title "systems and monetization designer" of one specialist monetization designer (#78, Electronic Arts BioWare, Austin, USA)

[71] This might also be due to the fact that "game design" might not be regarded a single skill, but is rather divided into several skills. Nevertheless, 83% of the job listings for game designers, that is, 20 out of 24, mentioned game design as a desired skill.

points at the emergence of a specific type of designer who encompasses the kind of analytical design that a game with microtransactions requires. Likewise, another job posting for a 'normal' game designer stressed monetization and analytical competence by describing the overall required profile as follows:

> "As a key member of the Game Design team at MZ, you will collaborate directly with our Live Operations, Engineering and Art Teams. You should be experienced in mobile game design, have knowledge of MMOs and virtual-goods based business models, and have strong monetization intuition and understanding. You must be a sharp, disciplined and highly analytical individual who has a passion for mobile gaming and leveraging data to inform the design and balancing of new game features that will drive engagement, retention and monetization." (#94, MZ, Palo Alto, USA)

In accordance with these job postings, the product lead at a large mobile developer elaborated on three different specializations for game designers he distinguished, which he called *content designers*, *UI / UX designers* and *system* or *economy* designers:

> "We kind of put game designers into three camps, which is content design, which is like level design in a match-three game, narrative design, like coming up with a story […], designing hidden object game levels, these types of things, and then there's systems designers or economy designers who are really good at building mechanics, building and balancing large economies, and the third is more UI / UX. So taking mechanics, taking content and putting it into a package that players can actually understand. [...] Usually a game designer will be good in one, two, three of those things." (INTB2, male, 30s)

He emphasized how, due to the dominance of the free-to-play monetization model, the need for the systems or economy kind of designer had increased during the last decade:

> "If I talk to designers that worked ten years ago—I used to work for console, a long time ago—and at that point the designers [...] were very much intuition focused, just focusing on the experience, taking what worked from other [...] traditional games at that time, versus, now, there's a lot more discussion on systems, numbers, data, monetization. And it's a big shift, so 90% of game designers ten years ago were content designers. They would design levels, they would do a little bit of designing of mechanics, but they were mostly about trying to make (players) feel as best as possible. And the remaining ten percent of designers were systems designers, so guys like Sid Meyer [the lead designer of the Civilization series], [...] the very systems driven guys, the guys who would try to (build) game mechanics, building economies and making those work, so like Civilization. And then now, because free-to-play is so economy-driven and so monetization-driven, it's much more a majority, [the] systems-driven guys." (INTB2, male, 30s)

His observations resonate with the fact that, as mentioned above, 9 out of 24 job titles for game designers in the job postings sample included the term system(s) and/or economy. For example, the first line of a job listing for a game economy designer illustrated how game design, monetization, and data analysis are closely connected:

> "As a Game Economy Designer, your responsibility is to understand how a game works as a service for its customers and project how customers behave. You are expected to improve each game's financial performance by identifying and developing the purchase drivers in the game economy context. You will also provide constant data-driven recommendations on design, tuning and pricing." (#21, Gameloft, Barcelona, ESP)

Furthermore, the main responsibilities in this job posting included "analyzing the evolution of defined metrics to spot both monetization bottlenecks and facilitators, and suggest game design improvements or enhance the customer experience accordingly" (#21).

In a similar vein, a producer of a small studio elaborated on the kind of data analysis skills a game designer at their studio was supposed to have, and how a system they had for tracking data facilitated tweaking game features for specific players segments—or even on the level of individual players:

> "So you need to be able to make the changes very fast. [...] The designers should be able to change them themselves for instance. They should be able to look at the data and other player feedback and then [say], 'Oh okay, I think we have to maybe lower the price a little bit for this group of people'. Or like: 'Okay, so this person has played for a very long time in the game, he or she's obviously very good, [...] maybe this person left the game, and we want them to come back.' So you need to be able to give this specific person something really specific, that they want. So you need to know a lot about the people playing. And of course this is [...] a complex system." (INTB9, female, 30s)

According to Kerr (2017), this kind of instrumental game design and quantification of game production has had a "mixed reaction in the industry, where the core role and autonomy of the designer and their creativity is being challenged" (p. 92). Yet, as she argues, the creative freedom of game designers might have been overestimated all along, due to the "collaborative nature of games production and the influence of publishers, platforms and other intermediaries on a game concept" (p. 81).

In this section I have shown that an analytical mindset and basic data analysis skills are essential for game professionals developing free-to-play games and other games with

microtransactions. For game designers, this even contributed to the growth of a specific role within the discipline: system or economy designer.

5.6.2 Market knowledge

An analytical mindset is not all game developers with monetization responsibilities need; they should also have a thorough market knowledge, which calls for the understanding of current trends and best practices, especially in the particular market segment a studio operates in. 62% of the job postings mentioned familiarity with the market and/or the ability to analyze market trends as a requirement or a plus. The relevance of market knowledge when working on a game's monetization is illustrated by its prevalence for monetization specialists (77%, 10 out of 13), but it is also important for designers and producers (75%, 18 out of 24 respectively 71%, 22 out of 31). For instance, a producer for a "shared-world action RPG" was supposed to "provide leadership on videogame market trends, patterns and customer requirements" (#53, Electronic Arts BioWare, Austin, USA). Interviewees echoed the importance of knowing your competition, especially in terms of monetization. For instance, according to the monetization consultant "when you're designing a game, you have to know what your competition does, what your target audience is, what their expectations are, how the game should actually talk with the player" (INTB8, male, 50s).

In some cases, the market knowledge mentioned in the job postings focused specifically on understanding the monetization techniques of other games, which was most present in job listings for monetization specialists or game designers with an emphasis on monetization. For instance, a monetization designer for MovieStar Planet in Copenhagen (DNK) should possess "in-depth knowledge of monetization best practices and competing games and products" (#81), whereas a free-to-play game designer needed "profound knowledge of monetization in F2P games" (#79 Chimera Entertainment, München, GER). A producer from a small studio explained that an important reason to know the market is to be aware of what players expect—as deviating too much from that might be a risk: "There are a lot of already known monetization mechanics that you can use, and if you don't present them for instance in a traditional way, it might be difficult for people to understand what they are like, supposed to do" (INTB9, female, 30s).

In contrast, the data analysts in the job postings were not expected to be familiar with the market just as much, as only 5 from 14 job postings (36%) mentioned it. This might be because the required academic qualifications are deemed sufficient in this regard or due to

the fact that the people assigning analytical tasks (and not the analysts themselves, see the section above) should be the ones knowledgeable about competition.

The relevance of market knowledge for game professionals is related to the general high level of imitation in the games sector, especially in the mobile sector (Van Roessel & Katzenbach, 2020, see also the previous chapter). Rather than reinventing the wheel for each game, it is common practice to adopt game principles and monetization techniques from other successful games, which is also enabled by the lack of copyright protection for game mechanics (Lastowka, 2013). As explained in the previous chapter, analyzing other games in the same market segment is also a common practice in the free-to-play development process, especially in the concept phase.

5.6.3 Formal education

Next to an analytical mindset and market knowledge, game professionals with monetization-related tasks also generally needed some kind of degree: 66% of the job listings mentioned a formal education as required or desirable. Within the 66 listings, a bachelor's or undergraduate degree was most frequent (36). 27 listings were searching for candidates with a master's or graduate degree whereas in 3 listings the applicant should have a PhD (or be a PhD candidate). Degree types varied, but leaned toward STEM degrees such as computer science, mathematics, or business intelligence (42%, 28 out of 66), while 30% (20 out of 66) included a desired degree in finance (e.g., economics) and 21% (14 out of 66) in business (e.g., management, HR). Interestingly, a game development degree was only required in nine job listings.[72]

Data analysis was the discipline demanding the highest level of formal education: 13 out of 14 vacant positions (93%) were to be filled by someone with an academic degree. In fact, all three postings mentioning PhDs were for data analysts. Of the remaining ten, five concerned an undergraduate and five a graduate degree. The emphasis on formal education for data analysts was also noted by an interviewed studio game design director, when asked about the department of analytics at his company: "Those are people much smarter than I am. I've never been with so many people with PhDs in the same room actually" (INTB7, male, 30s).

[72] Note that several of 66 postings where academic degrees were needed mentioned more than one possible educational background, hence the total number of codings was 84 in this case.

For producers, a formal education seemed somewhat less important, with 68% (21 out of 31) of job listings searching for candidates with academic degrees, 13 of which required an undergraduate and 8 a graduate degree. Yet, interestingly, a degree was least required for game designers and monetization specialists: Only 12 out of 24 (50%) of game design listings mentioned an academic background while 7 out of 13 (54%) of monetization specialists were supposed to have a degree. In case of the latter, this could be due to the fact that monetization design is such a new discipline in the industry, and its corresponding expertise might be gained through experience rather than by a formal education. In the case of game design, which has been around for longer and is even part of the core triad, it is more remarkable that a formal education was not required in half of the job postings. As elaborated at the beginning of this chapter, game designers come from a wide variety of backgrounds, with their "love of and interest in creating games" being their main commonality (O'Donnell, 2009). The job postings for game designers in the sample reflected this need for a genuine personal interest in game development, as 63% (15 out of 24) of listings mentioned a passion for games as a requirement. In contrast, this was only the case in 36% (5 out of 14) listings for data analysts, who have the highest educational requirements. Thus, game designers tasked with monetization duties are required to have a passion for games, an analytical mindset, and market knowledge rather than a university degree.

In sum, based on the required skills (i.e., analytical mindset and market knowledge), as well as the fact that game design itself is less frequently required, it can be argued that monetization is less of a creative discipline and more of a task that depends on optimization, testing, and perpetual tweaking. As such, it rewards rigorous methodology, as evidenced by the number of related types of university degrees recommended or required in the job listings.

5.7 Tensions between roles: Game design vs. monetization

In the previous sections, I have touched upon tensions that might occur when developing games with microtransactions. As explained in the former chapter, it can be difficult to find a balance between (good) gameplay and successful monetization in a free-to-play. Or, in Kati Alha's (2020) words, "free-to-play games have unique challenges in finding balances between revenue and gameplay experience" (p. 108). This also affects the team composition and role division in free-to-play development, which is one of the reasons the interviewees preferred

the roles of monetization and game design to be combined in one person. Yet, according to the monetization consultant, it is hard to find a person that incorporates both skillsets:

> "To find everything in one person is pretty tough, meaning that many teams try to split this role, so they have a game designer, an economy designer, a monetization designer. And then it becomes a problem of actually communicating between these three. And that's where the producer has to have really (good) skills [...]. Meaning that the producer needs to understand the designer's needs." (INTB8, male, 50s)

He thus stressed that in case the roles are separated by necessity, it is essential to have a good producer to balance the interests and find a middle ground. Upon being asked whether he has experienced conflicts between monetization designers and game designers, the monetization consultant answered:

> "Often, very very often. That's the reason why I'm not a big fan of actually splitting that, specifically because the monetization designer's task is actually to maximize the earnings of the game while the game designers want to have a game that is really a lot of fun [...] and usually these two can conflict each other." (INTB8, male, 50s)

Likewise, the abovementioned product lead—who distinguished between economy/system, content, and UX designers—talked about possible conflicts between game designers and himself regarding monetization. The nature of the fight would often depend on the kind of designer he dealt with:

> "If you have a game designer that is really interested in monetization and really interested in [...] systems design, then [...] usually [...] it's not so much of a fight to talk about monetization. [...] And sometimes people get in fights about, you know, this sounds great in excel, this looks great in excel, but when you play the game it really feels like, you know, we're asking for money every few seconds. This doesn't feel good. So that would be a fight with the game designer, otherwise you would get into fights about things like [...] if we make the game more friendly and more fun and we take what the players really really want, sometimes we're removing opportunities [...] to monetize." (INTB2, male, 30s)

In a similar vein, a small studio's producer explained how he sometimes acts as an advocate for the monetization (i.e., *aggressive design*) and sometimes for the gameplay, depending on the kind of designer he is dealing with:

> "Q: Is it common that you as a producer would suggest the more aggressive way of monetizing and the designer would be more on the game design side?

> A: Eh no. I mean I think it's [...] really different for people [...] I think people also often adjust to each other in the sense that like, the designer is very aggressive, then I think the producer needs to counterweight that and has to find [...] a good middle ground. But [...] one of our designers is very aggressive and the other one is not. So, [...] I wouldn't say it's like a position thing." (INTB6, male, 30s)

When asked how discussions or disagreements about the monetization are solved, he answered: "at the end of the day it's the designer's responsibility [...] if the designer chooses not to listen to you, that's their prerogative" (INTB6, male, 30s).

The conflicts these interviewees described between those advocating for fun and those trying to maximize the earnings (i.e., the monetization designer or producer) are generally not uncommon in the games industry, that is, such tensions also exist outside of the free-to-play realm. As Kerr (2017) observes: "Within projects we see creative tensions between designers, programmers, business and support functions even if many of the companies are relatively flat organizationally" (p. 18). In other media industries, such as Hollywood film, this is a notorious dilemma as well. For instance, according to Baker and Faulkner (1991), "as in any art world, filmmaking is plagued by the intrinsic dilemma of commercial versus artistic interests [...] represented by the classic struggles between the producer and the artists" (p. 286). In fact, also from a broader perspective that is concerned with creative processes within large organizations, Drazin et al. (1999) argue that

> "even in a single organization, a multitude of diverse frames can exist, arising from and characterizing different job categories, occupations, positions, status, ideologies, and paradigms [...]. Creativity typically involves tension between innovation and control and, thus, can engender a natural dialectic between different, and perhaps opposing, intraorganizational communities" (pp. 9-10).

As mentioned earlier, the two sides are sometimes also designated *suits* and *creatives*: Producers belong to the former, whereas game professionals within the core triad of design, programming, and art are considered the latter (Whitson et al., 2021; Kohler, 2012). Following the monetization consultant's reasoning, monetization designers would be suits in the sense that they are to a great extent concerned with the game's commercial success. However, the use of the term designer for this role indicates that the classification is not so straightforward. Due to the close connection of game design and monetization in free-to-play games, the role of monetization designer defies the distinction between suits and creatives—which is, due to its oversimplicity, arguably not useful in the first place (cf. Whitson et al., 2021). In addition,

the experiences of the product lead and producer illustrate that the way roles in the dynamic free-to-play games industry are enacted is not fixed, but depends on the specific situation and the interplay between actors. This corresponds to the results of Matthew Chew's (2016) discourse analysis on the reception of free-to-play games, which I have elaborated upon in chapter 2. Initially, Chew believed that game designers were mostly worried about creativity constraints in free-to-play games, whereas management would be in favor of the monetization model for its enormous profit potential. Yet, after a closer reading, Chew found that "the argumentative positions of different groups within the industry are by no means inflexibly determined by their positions and interests" (p. 232). Thus, ascribing attitudes toward free-to-play games directly to occupational role or position would fail to do justice to the complex reasonings at play among free-to-play game professionals.[73]

As such, communication skills are highly relevant when working in multidisciplinary game production—which does not only apply to monetization or free-to-play game development. Based on ethnographic research in a US-American game studio, Ergin Bulut (2020) comes to the conclusion that "communication becomes inseparable from the laboring capacity of game developers" (p. 101). The analyzed job postings reflected this, as 62% required interdisciplinary communication and collaboration skills. This skill was most wanted for data analysts (79%, 11 out of 14), monetization specialists (77%, 10 out of 13), producers (74%, 23 out of 31), and business-related positions (75%, 6 out of 8), whereas only 8 of 24 listings for game designers (33%) mentioned it as a requirement or plus. However, as shown in the quote above, the interviewed level designer did regard good interdisciplinary communication important, as he indicated that it is highly beneficial that he "speak[s] the same language" as the business department (INTB1, male, 20s).

5.8 Conclusion

In this chapter, I have focused on the profession of free-to-play game developers by looking at the roles and team composition in free-to-play game development, especially with regard to monetization. Literature on roles in game production shows that game designers, artists, and programmers are considered the core triad of game development (with their specializations such as level designer, 3D artist, or back-end engineer) and that teams are

[73] I will address these complex reasonings more in-depth in chapter 6 about norms and values toward the monetization model.

often complemented by the fourth role of producer. Furthermore, additional roles exist that include sound designers, community managers, data analysts, and QA testers, which receive increasing academic attention.

Following Faulkner and Baker (1991) as well as Bechky (2006), role is understood as a bundle of norms and expectations, which is enacted from a position in a non-fixed way. As the games industry is an occupational community (Weststar, 2015), role as a resource can help claim citizenship and belonging to this community and grant access to social, cultural, and material resources. The empirical findings presented in this chapter contribute to broader research into emerging and shifting roles, skills, and competencies in the increasingly data-driven creative industries (Deuze & Prenger, 2019).

As I have shown on the basis of interviews and an analysis of job postings, there are dedicated monetization specialists, who work as external consultants—sometimes flown in for a specific project—or as in-house employees. However, distributing monetization responsibilities among other positions in the team is more common, with the relevance of monetization duties varying in different occupational roles. As such, the role of a monetization specialist can be enacted by other members of the team without the studio having to hire another person for the specific position. This is evident mostly in smaller studios as a cost-saving measure. In these cases, the duties of a specialist are assumed by several members of the team, who have to integrate these tasks into their own sets of activities and within the capacity of their own role. Yet, it is not only a cost-saving measure that leads to the integration of monetization skills, as it is sometimes also considered a more natural integration of monetization and game design when these tasks are combined in one person. As such, it is vital for game designers of free-to-play games to possess monetization expertise—at least on a basic level.

From the core triad of design, programming, and art, artists and programmers are less affected by a game's monetization model, whereas designers' responsibilities are affected to it by a great extent, which led to the increasing demand for and emergence of *system* or *economy designers* as a specialization of game design. But not only designers, also producers and data analysts often have monetization-related duties added to their workloads.

Skills that are relevant for monetization-related tasks are an analytical mindset as well as knowledge of the market segment with its best practices and common monetization techniques. For game professionals with monetization tasks, degrees are more frequently

required in fields like STEM, economics, or business than in specialized game development study lines. As such, monetization design is a role that encompasses systematic and analytical tasks rather than creativity and 'out-of-the-box thinking'. This can lead to tensions between the person (feeling) responsible for monetization—whether it be the producer, designer, or a monetization specialist—and those advocating for the gameplay or 'fun' of the game.

In sum, the fluidity of required skills and tasks between different game professionals who are concerned with monetization—for example, a designer and producer needing data analysis competencies or data analysts needing collaboration and communication skills—shows how roles in the dynamic free-to-play area are never fixed and come into being when they are enacted.

6
“Obviously you want to be fair.” How free-to-play game developers differentiate between acceptable and objectionable monetization mechanisms.

6.1 Introduction

> “*Harry Potter: Hogwarts Mystery* forces you to pay - or wait - to save a kid from being strangled”

This is how a review of free-to-play mobile game *Harry Potter: Hogwarts Mystery* on Eurogamer headlined shortly after the game’s release in April 2018. In the article, the reviewer voices his discomfort with the questionable monetization techniques the game contains, considering that it belongs to a well-known franchise and targets a young audience:

> “But the game's premium license and production values all come at a cost – and that cost is forced onto the player in the form of a debilitating energy system, which slows progress to a near-impossible crawl unless you pay up. […] The game encourages you to make a purchase and continue immediately rather than wait and leave your avatar suffering. It is especially troubling when you consider the game's audience. […] With energy a (quickly) consumable resource, continually paying for more would quickly sap your funds. That the app encourages you to pay is not surprising in itself—but the manner in which it does, and the frequency which you'd need to is frankly astonishing.” (Philips, 2018)

This quote shows well how free-to-play monetization—not only the mere business model but also the way it is executed—has become an important factor in assessing a game’s quality. Ample other examples can be found of reviews taking the implementation and effects of the chosen monetization model as parameter to judge a game. For instance, briefly after the release of long-awaited Ubisoft fighting game *For Honor,* PCGamer featured: “*For Honor* players did the math on its microtransactions and aren't happy about it” (Messner, 2017), Forbes reviewer Erik Kain defended *Super Mario Run*’s monetization model with the article “Nintendo was right to not make *Super Mario Run* free-to-play” (2016), and Polygon published an article titled “*Fortnite* is free, but kids are getting bullied into spending money” (Hernandez,

2019). After conducting a survey amongst their readers, German games website GameStar even decided to stipulate a deduction of points for "bad monetization" in their reviewing system: 5-15 points (out of a possible total of 100) are withheld from games with so-called pay-to-win monetization. They define pay-to-win as:

> "A game that grants access to in-game content or improvements that provide the paying player with **a clear advantage vis-à-vis non-paying players** and thereby **impair the game balance**. […] It is irrelevant whether the game is offered for free (Free2Play) or for an up-front fee."[74] (GameStar, 2018)

This adjustment of the review system and the aforementioned examples do not come out of the blue, but are rather the result of a—partly still ongoing—intense debate about the morals of free-to-play games and microtransactions that started about a decade ago. As I elaborated more in-depth in chapter 2, from its emergence in Europe in the early 2010s, free-to-play games have been subject to criticism (Chew, 2016; Paul, 2020; Švelch, 2017). They were, for instance, deemed innately unethical, for reasons like the alleged exploitation of players or the mere fact that such games are inherently 'spoiled' by real money (e.g., Bogost, 2014; Chew, 2016; Evans, 2015; Shokrizade, 2013; Zagal, Björk, and Lewis, 2013). In the previous chapters, in which I discussed how the free-to-play monetization model affects the production process of games and what skillsets are required of game professionals working with microtransactions, I already briefly touched upon differing views with respect to monetization as a possible source of friction between game developers. Such conflicts are not only due to the 'natural' friction in the cultural industries between business and creative interests, that is, between *suits* and *creatives* (see also the previous chapter), but can also be related to the general controversy described in chapter 2, which has surrounded the free-to-play monetization model from its onset. Just like in the overall discipline of game studies, the production aspect of this matter is also understudied (Kerr, 2017): While many game scholars have analyzed free-to-play games in order to critically assess them, fewer have turned to the developers and their views and practices to study the phenomenon. As such, empirical research involving direct interrogation of game developers about their norms toward

[74] My translation, emphasis as in the original quote. Quote in German: "Ein Spiel, das Nutzern gegen echtes Geld Zugriff auf Ingame-Inhalte oder Verbesserungen gewährt, die dem zahlenden Nutzer einen **klaren Vorteil gegenüber nichtzahlenden Spielern** verschaffen und damit **die Spielbalance beeinträchtigen**, bezeichnen wir als Pay2Win. Dabei ist unerheblich, ob das Spiel kostenlos (Free2Play) oder kostenpflichtig angeboten wird."

monetization models is scarce. A notable exception is a paper by Kati Alha, Elina Koskinen, Janne Paavilainen, Juho Hamari, and Jani Kinnunen (2014),[75] who conducted fourteen interviews with Finnish game developers, and asked them about their attitudes towards free-to-play. The results indicate that these developers generally saw the monetization model in a positive light, but opinions differed between those who developed free-to-play and those who did not (Alha et al., 2014).

In this chapter, I will further unpack the norms and values free-to-play developers hold vis-à-vis the monetization model. I will address questions such as: How do game professionals distinguish between acceptable and objectionable free-to-play monetization techniques? How do they perceive players that spend large amounts of money in their games, and to what extent do such spending patterns cause moral unease? As such, this chapter contributes to filling the gap in empirical studies from a developer perspective into free-to-play games, specifically "on whether and how the conflict between quality and monetization varies in degrees in different game genres" (Chew, 2016, p. 244). Before elaborating on the methodology and presenting the findings, I will first address how game practitioners' norms and morals are understood in this chapter using a moral economy approach (Banks, 2017), and contextualize the research by discussing other academic accounts on morals and values in game development.

6.2 Morals and values in game development

6.2.1 Moral economy and the cultural industries

As a framework for interpreting the empirical findings, I will adopt an approach of "moral economy of cultural work", mainly following Mark Banks (2017). The concept of moral economy was introduced by William Booth (1994), who claimed that the economy "is suffused by the norms of the community of which it is a part", and as such "all economies, including the near-to-pervasive-market economies, are moral economies, embedded in the (ethical) framework of their communities" (p. 662). In other words, morals do not cease to exist at the moment one enters an economic or work environment. Instead, work is subject to the norms and values of the society in which it is embedded.

[75] This paper was later incorporated into Alha's PhD thesis, which was published in 2020, hence the reference later to Alha, 2020.

The moral economy of cultural work approach as described by Banks (2017) is particularly productive for the kind of analysis carried out in this thesis, which is concerned with the connection between, on the one hand, in-depth research of cultural work on the micro-level of daily practices, and on the other hand, broader approaches that focus on social and economic macro-structures (as elaborated in chapter 3, with reference to Mayer, 2009). While zooming in on the former, that is, the micro-level, can be "richly descriptive but also disconnected from broader structures", a focus on merely the latter, that is, macro-structures, might disregard the social embeddedness of work practices and local specificities (Banks, 2017, p. 42).

Congruent with moral economy's assumption that moral considerations permeate creative work settings is Timothy Havens and Amanda Lotz' (2017) concept of *circumscribed agency* (which I also addressed in chapter 3). This concept identifies societal norms as one of the factors that delimit autonomy or agency of media industry workers. Havens and Lotz however simultaneously address the "relative isolation of media producers from audiences while being entrenched in professional cultures that establish norms of quality and characteristics of media goods", which leads media creators to "reproduce norms and values unintentionally" (p. 11), thereby claiming that not only society at large but also sector and company culture affect media workers' norms and values—and these might be at odds. As shown in the abovementioned quote, Booth (1994) also acknowledged this by writing about the "(ethical) framework of their communities" (p. 662).[76]

Thus, moral economy approaches bring together individual portrayals of particular conditions and work experiences with more systemic accounts, by "emphasizing the *normative environments* that both ground and connect different individuals, institutions and structures" (Banks, 2017, p. 42, original emphasis). This is fruitful for research into the cultural industries, where motivations to work are often multifaceted and diffuse, meaning they can be partly economic, but might also include, for instance, the aspiration toward meaningful self-realization (Banks, 2017; Hesmondhalgh & Baker, 2011). Consequently, professionals in the cultural industries, which according to Banks (2017) include managers as well as artists, "invest their work with varied purposes, intentions and meanings, which strongly influences

[76] As I will show later in the chapter, even though audience perception of specific games and monetization mechanics is carefully monitored in free-to-play game development and as such the sector seems less isolated from its audience than other subsectors in the media industries, player norms might still be at odds with those of the developers—but the latter have found ways to deal with this dissonance.

the production, circulation and consumption of cultural goods" (p. 43). Therefore, accounting for ethics and morality[77] enables us to better describe and understand cultural work and to show how cultural work can be understood as a "socially complex 'moral' endeavor" (p. 43).

6.2.2 Motives to work in the games sector

As various game production scholars have shown, a motivation to work beyond mere economic drive indeed applies to the games industry as well. For instance, Johanna Weststar (2015) points out on the basis of an extensive analysis of secondary source online material, that the "majority of VGDs [video game developers] were and are avid game players; they have a self-professed passion for games and wish to make this their life work" (p. 1244). Similarly, according to Casey O'Donnell (2009), game designers share "a love and interest for creating games" (p. 5), whereas for community managers a passion for games is often an explicit requirement in order to get the job (Kerr & Kelleher, 2015).[78] Accordingly, as addressed more extensively in the previous chapter, Weststar (2015) has shown that game developers form an occupational community (OC), who "through their identification with their occupation, share a common set of norms and values" (p. 1240).

In the case of indie game developers,[79] Jennifer Whitson, Bart Simon, and Fellan Parker (2021) argue that rather than trying to achieve "end goals of growth and accumulation", indies link success with the ability "to sustain ongoing creative and collective processes" (p. 6). This corresponds to Banks' (2017) notion of "practices" (as set apart from ordinary activities), which entails that "the practice provides common or cooperative benefits outside the parameters of instrumental or individual self-interest" and "the continuation and elaboration of the practice itself must be judged *as important as* the development of any individual, 'selfish' needs" (p. 46, emphasis mine).[80] Yet, indie game development is often contrasted with other sub-sectors of the games industry such as *AAA*[81] game development and the free-to-play mobile sector (e.g., Phillips, 2016; Van Roessel & Katzenbach, 2020; Whitson et al., 2021). As I will show later in this chapter, game developers who self-identify as indies hold

[77] Banks uses the terms ethics and morals interchangeably, "acknowledging their often interchangeable use more widely and presuming both to be broadly concerned with normative conceptions of the good" (p. 63).
[78] See chapter 5 for an overview of the different roles in game development and their tasks and responsibilities.
[79] See chapter 5 (footnote 57) for an explanation of the term indie.
[80] The idea that indie developers are driven by the need to express themselves creatively rather than making profits is nicely illustrated by the 2012 documentary "Indie Game: The Movie" (Swirsky & Pajot), in which developers of three indie games are portrayed as struggling auteurs.
[81] AAA are large productions with typically big budgets, often as part of a (game or cross-media) franchise. For a more detailed description of the industry's sub-sectors, see chapter 2.

different norms toward the free-to-play monetization model than those who work in mobile free-to-play studios. The main focus of the chapter will, however, be on free-to-play game developers (who might have formerly worked in other sub-sectors of the games industry) and how their morals inform and shape the way they develop their games.

6.2.3 Game design values

Some scholars in game production studies have looked into the norms and values of game developers as well as the relation between the norms and the games that are created. In line with the moral economy approach, although not explicitly referring to it, Mary Flanagan, Helen Nissenbaum, Jonathan Belman, and Jim Diamon (2007) note, "through the design process, values and beliefs become embedded in games *whether designers intend them to or not*" (p. 752, original emphasis).

Annakaisa Kultima and Alyea Sandovar (2016) also distinguish different categories of game designer values, and draw from design ideas of theorists Ivar Holm, Bryan Lawson, and Donald Schön. Their level of analysis is mostly on the individual micro-level of game designers, while acknowledging that broader societal values might be included in individual values that guide the design process. According to Kultima and Sandovar, "design is not only informed by selected and explicated societal values but varied sets of beliefs and attitudes", however "the multitude of these values operates on the background while designers work and make decisions" (p. 2). They therefore plead for more "research on the actual day-to-day value systems of game developers" (p. 2). Their approach of looking at the fields of architecture and industrial design (Holm) as well as design research (Lawson and Schön) proves fruitful for showing how "value pluralism" exists in every area of design, and that these values might be conflicting at times. Often, this multitude of potentially contradicting values only manifests when friction occurs. Inspired by Holm's account of distinctive design values, Kultima and Sandovar present a framework for labeling game design values with nine main categories: "Value of Player Centrism; Casual Game Design Values; Traditional Game Design Values; Value of Artistic Expression, Innovation and Experimentation; Societal Impact and Cultural Values; Values of Production and Creation Process; Values of Independency and Values of Commercial" (p. 5). The categories operate on somewhat heterogeneous levels, as "casual game design values", for instance, includes values on the level of a genre or a sub-sector, whereas other values apply to game production in general. Furthermore, the subcategory "ethics and morality" is situated as a sub-value in the category "societal impact and cultural

values", which seems to exclude the relevance of moral considerations in other categories such as "ludological values" and "values of production and creation process" (p.5).

As such, Kultima and Sandovar's (2016) category system jars with the notion of moral economy, which suggests a diffusion of morals in the various facets of cultural work. As I will show below on the basis of my empirical findings, other value categories such as ludological values and values of production are in fact not free from moralistic concerns. Nevertheless, Kultima and Sandovar make a valuable contribution by showing the multitude of individual as well as societal considerations game designers—often implicitly—deal with. Moreover, they touch upon possible difficulties with free-to-play games by arguing that "the conflict growing in dominance is that of the free-to-play model and the adjoining of business model innovations with gameplay design" (p. 5), which I will further elaborate upon in the results section below.

Starting from a similar idea, that is, that designer values are embedded in games, José Zagal, Staffan Björk, and Chris Lewis (2013) look into the concept of game design patterns, as "abstractions of common design elements in games" which can "convey and represent values" (p. 2). As already touched upon in chapter 2, Zagal et al. specifically analyze different kinds of *dark game design patterns*, which they describe as "a pattern used intentionally by a game creator to cause negative experiences for players which are against their best interests and likely to happen without their consent" (p. 7), while acknowledging that "even with a strong pattern, much of the darkness comes from its use and context" (p. 7). As one of three main categories next to *temporal dark patterns* (actions taking more or less time than players expected), and *social capital-based dark patterns*, (patterns where the value of the players' "social standing and relations is being risked", p. 5), they identify *monetary dark patterns,* which include "all examples of players being deceived into spending more money than they expected or anticipated" (p. 4). This latter category is further specified in *pay to skip,* which means that tedious or difficult parts of the game can be leapt over by spending money, *pre-delivered content,* which gives the impression that the player is being sold an incomplete game and then being duped into paying for the rest, and *monetized rivalries*, which is "a pattern that exploits player competitiveness; encouraging them to spend money they would not otherwise in order to achieve in-game status such as a high placement on a leaderboard" (p. 5). As addressed more thoroughly in the findings section below, Zagal et al. illustrate how different

dark patterns are sometimes combined, for instance, the temporal dark pattern of *grinding*[82] is often accompanied by *pay to skip,* so that cumbersome grinding can be avoided by spending money.

Even though the intentions of the game creators are part of the definition of dark game design patterns, Zagal et al. (2013) do not turn to actual game professionals nor do they look at practices of game development to elaborate their concept further. Rather, they emphasize the importance of the playing context, for example, the specific preferences as well as the expectations and skills of individual players, for assessing whether a design pattern can be regarded dark. Therefore, Zagal et al. consider transparency as an important prerequisite to avoiding dark game design patterns. In order to provide however a more balanced understanding of these allegedly dark game design patterns, in this chapter I aim to complement suchlike analyses of games, players and playing contexts with developers' perspectives. As I will show, transparency is, in fact, also a relevant principle for game developers when judging the morals of monetization techniques.

6.2.4 Regulation of monetization and free-to-play games

When addressing the question of where developers draw the line between objectionable and acceptable monetization techniques, one should also take the legal situation into consideration, because, as will I will show below, game professionals also use formal regulation as reference for their own moral judgements. Moreover, as argued above, the approach in this chapter acknowledges that games are not created in a societal vacuum and game development norms are thus subject to legal discussions as well—and vice versa.

In the EU, notable in this respect is the common position of the Consumer Protection Cooperation (CPC) that was released after having received "complaints from all over Europe" about "games advertised as 'free', although they often entail, sometimes costly, in-app purchases" (European Commission, 2014). The common position of national authorities within the CPC stipulates, among other things, that "no form of advertisement should promote games as 'free' where this has the potential to mislead consumers as to the actual costs involved in playing the games and/or as to the true costs." (European Commission, 2014). Next to this matter, three other issues are formulated, containing 1) a ban of "direct exhortations to children to buy items in a game or to persuade an adult to buy items for them", 2) an

[82] Grinding refers to performing repetitive, mostly rather uninteresting tasks to achieve a desired outcome.

obligation to inform adequately about "the payment arrangements and purchases" and 3) the requirement to provide the trader's email address (European Commission, 2014). These regulations thus operate on the level of transparency and communication (especially towards children) rather than on a detailed level of actual gameplay and monetization techniques. In response, Apple's App Store added a label saying "in-app-purchases" to games that contain microtransactions and both Google's Play Store and the App Store replaced the button "free" with "get" to install the apps, which would reflect the fact that such games are merely free to start with (Ball & Fordham, 2018).

However, in the volatile games sector, legislation might lag behind current trends and common views. This is in fact not only the case for the games sector, but also applies to fast-moving technological developments in general, which Jennifer Holt (2012) refers to as the "regulatory hangover" (p. 141). Due to the "shifting business models in the digital era" as well as the "dramatic pace of innovation and rapidly blurring boundaries between media and telecommunications", Holt argues that "policy has been out-paced by technological and industrial advances, as regulators are struggling to accommodate a digital and convergent media landscape" (pp. 140-141).

Furthermore, it is shown in other economic areas that the 'delay' of legislation is not the only reason that laws do not always correspond to community norms. This was, for instance, studied with regard to intellectual property legislation, for which scholars in the field of empirical copyright research have found that creative professionals might hold more nuanced, sometimes even stricter norms toward imitation and copying than law would prescribe (Oliar & Sprigman, 2008; Raustiala & Sprigman, 2012; Silbey, 2014). As shown in the study I conducted with Christian Katzenbach on imitation in the games industry, this applies to the games sector as well, as developers, even in the case of a game's legally unprotected rule set, "disapprove of the wholesale copying of one of a game's main components," whilst simultaneously "reject[ing] stricter intellectual property protection" (Van Roessel & Katzenbach, 2020, p. 402, also addressed in chapter 4). The findings exemplify the complex interplay between official regulation and informal norms.

In a similar vein, Matthew Perks (2021) addresses the issue of regulating monetization by historically tracing the discourses that played a part in the heated debate around loot boxes from late 2017 to 2019, following the concept of "regulatory space", which "highlights the many different actors and processes of regulation that may impact games production" (p.

219). I will go into loot boxes as a form of controversial in-game monetization later on in this chapter. However, here mainly Perks' approach is relevant, as he, too, acknowledges that official regulators are only one actor to consider when looking at regulation processes. He contends that "alternative forms of power and authority in the video game industry" might include "the power of developers to organize and self-regulate, of consumers to utilize their purchasing power to influence development practices, or the work of third-party lobbyist groups to influence government legislation" (p. 220). Perks concludes that, even if attempts to formally regulate loot boxes as gambling in the USA[83] have hitherto failed, the overall discussion amongst various stakeholders has led to increased awareness about the issue and more transparent communication. Thus, when discussing developer norms toward monetization, one should take both formal regulation and community norms into consideration.

To summarize, in order to address the central questions in this chapter of how game professionals morally assess the free-to-play model and distinguish between various monetization techniques as well as how this affects their design decisions (or potentially leads to friction with others in the team), I will look at developers' norms and design values while acknowledging that conflicting values might coexist. The moral economy approach and the notion of game developers as an occupational community will help understand how the individual norms are connected to both their peer group values and broader societal morals, as game professionals' work is ingrained with the "moral dimensions that shape and inform our collective and common life" (Banks, 2017, p. 42). Part of this broader societal context is the ongoing debate on if and how to regulate free-to-play games and specific monetization mechanisms, in which a complex interplay between the norms within the game developer community, media outlets and regulators is at work. But before presenting my findings, I will describe the methodology used for this chapter in more detail.

6.3 Method

In order to address these questions, I draw from two interview studies, from 2015 and 2017, which form the empirical basis for this chapter. The first set of interviews was conducted in the context of the previously mentioned study on imitation in the German games sector (see

[83] Attempts to regulate loot boxes have not failed everywhere. In Belgium, for instance, loot boxes have been legally banned.

Van Roessel & Katzenbach, 2020). The study involved semi-structured interviews with 17 game practitioners working at Germany-based game studios, covering the core disciplines of game design (6), game art (4), programming (3), and production/management (3), as well as one researcher (see the former chapter for an extensive overview of the different roles in game development). Interviewees were recruited mainly at game industry events in 2014 and early 2015. The interviewees were selected from two sub-sectors of the German games industry: independent developers (i.e., small studio developers who self-identified as *indies*, with company size of up to 8 employees) (8) and large browser and mobile game developers (with 200 to 1000 employees) (9).[84] The interviewees' experience in the games sector ranged from 0 to 15 years. Four were female; 13 were male.

Note that, as the interviewees were recruited for a study with a different focus than the monetization model, not all interviewees were involved in developing free-to-play games. Yet, as I will show later in this chapter, the game professionals who did not make free-to-play games (mostly the independent developers), provided valuable insights in attitudes toward the monetization model and reasons why *not* to work with it.

Each interview took approximately 90 minutes, with one part dedicated to monetization models and free-to-play in particular. The relevant topics for this chapter included the company's business model and the extent to which the interviewee was involved in deciding on it, the interviewee's view on business models and innovation in the sector, and the relation between innovation and monetization techniques. In addition to the direct questions about the monetization model, interviewees also mentioned the issue at other points in the interviews, for instance, when being asked about major trends in the games industry or about their daily practice as game developers. These sections were also coded with the "monetization model" code and further analyzed in a similar way. These statements are correspondingly more heterogeneous than the direct answers to the questions about business models. The interviews in the first study were conducted in a time where the free-to-play monetization model was still fairly new in Germany. In the Discussion, I will reflect on the ways practices and attitudes (might) have changed since the interviews were conducted, and how the findings can be interpreted in the current games landscape.

[84] One of these interviewees, a female game designer in her 20s, had been working for 6 months at the large browser game studio at the time of the interview. Before starting there, she had been an active indie game designer. Next to her new job, she still worked on her own independent projects. Therefore, she can be considered a hybrid case, which I will also reflect upon when referring to her in the findings.

The second study is the empirical material also used in the other chapters of this thesis, which consists of nine semi-structured interviews with mobile free-to-play game developers conducted in 2017, which lasted around 90 minutes as well. In this study, the self-reported disciplines and role descriptions of the interviewees were game designer (2), producer (2), product lead, head of games, studio game design director, freelance monetization expert/consultant, and a creative director of a small studio. The interviewees came from six different studios, all exclusively developing free-to-play games, with company size ranging from less than ten to over a thousand employees. Two interviewees were female, seven male, and interviewees were again mostly recruited at an industry event: Casual Connect 2017, which took place in Berlin in February 2017. Rather than addressing the general attitudes toward the free-to-play monetization model as a whole, these interviews dug deeper into how developers' values and attitudes translate in their daily work routines. Questions addressed how developers categorized different monetization techniques, their criteria for defining good and bad monetization, as well as potential disagreements about the morals of monetization – and how these were typically solved.

Both studies followed an approach of "exclusive informants", which provides insight into the terms of production of media products while acknowledging that "these media products are created within an organizational framework and under the influence of social forces such as technology, economics and cultural politics" (Bruun, 2016, p. 134). All the interviews were transcribed and thematically coded using the qualitative analysis software MaxQDA.

For the common issues that were addressed in both studies, the findings were combined, whereas for topics specifically addressed in one of the studies, they were treated separately (this mainly applies to the first results section on indies' views on free-to-play). Interviewees whose anonymized codes start with an A refer to those interviewed in 2015 (e.g., INTA1), whereas interviewees starting with a B belong to the 2017 study (e.g., INTB1). Appendix A provides an overview of all interviewees.

6.4 Indies reject the free-to-play model in its entirety

Before going into the detailed norms free-to-play developers hold vis-à-vis the monetization model, I will first elaborate on the overall disapproval of the freemium[85] model by indie developers. As mentioned above, eight interviewees in the 2015 study were self-identified indie developers, working in small studios that they (co-)owned. There was a strong difference between indies and those employed in larger browser and mobile game studios: While the latter worked for companies that mainly developed free-to-play games—and generally had no say in the upfront decision for the business model—indies chose not to develop free-to-play games at all.

Seven of the eight interviewed indie developers explicitly said that not creating freemium games was their deliberate decision. Although they were aware that free-to-play can be a lucrative business model and most of the top grossing mobile games use it, they rejected it, even if this meant making a living as game developer posed a greater challenge. This supports Whitson et al.'s (2021) research on indie game developers' rationales for working in the games industry, which showed that for indies earning money with their work is mainly meant to enable them to "keep on keeping on" (p. 607). As such, it also corresponds to Banks' (2017) notion of emulative competition, as opposed to market competition: Unlike market competitors, who are mostly interested in external goods such as monetary profits, emulative competitors "see achieving standards of excellence and internal goods as paramount, with external goods valued primarily as resources for enabling further contributions to the practice" (p. 46).

The interviewed indie developers rather sold their mobile games as premium games, that is, asking for a (small) amount of money to be paid once and upfront. One game artist explicitly mentioned having the choice not to develop free-to-play games as one of the reasons for being an indie developer:

> "We would never do a free-to-play game, because that's not really what we want to do. Otherwise we wouldn't have our own studio, we would go to some other company and work there and would earn more money, probably." (INTA3, female, 20s)

[85] As mentioned in chapter 2, the terms free-to-play games and freemium games are used interchangeably in this thesis.

The indies gave a variety of reasons for choosing the premium model over free-to-play. One reason mentioned in different formulations by several developers is the view that the model deceives players or makes them addicted, an argument that expresses the value of *societal impact and cultural values* (Kultima & Sandovar, 2016). For instance, a programmer formulated his moral objections to free-to-play as follows:

> "Usually the very popular games aren't the games I want to make. [...] If you look at the sales numbers, very popular means freemium, nobody can compete with that. [...] It's a different magnitude of sales. [...]
>
> Q: So you would never consider doing freemium?
>
> A: When it comes down to eating or freemium, I guess it's freemium, but I won't be happy about it.
>
> Q: And what makes you being so much against it?
>
> A: The things I mean by saying freemium are targeted at people, or depend on 'whales', to say it frankly, and whales is a nice word for game addict, and I don't think you want to exploit someone who has an addiction, at least that's not why I went into programming. Yeah, that's kind of I guess my conscience in a way." (INTA4, male, 30s)

In other words, this interviewee would only work on free-to-play games if he otherwise could not make a living.[86] This is actually one of the reasons that one game designer went from being an indie to working for a large browser game developer, while still working on her own independent projects on the side. She explained:

> "I wouldn't choose that business model for my own games, because also the name sounds like a lie for me. So it's not free to play basically, everybody who plays, pays much more for a free-to-play game than for a premium game". (INTA19, female, 20s)

She continued to reflect on herself working for a free-to-play studio out of necessity, as making commercially viable games with a premium model had proven difficult:

> "I think how [name of the studio] does it [i.e., free-to-play] is kind of okay. I understand that developers have to live off something. For me it would be nice if it was more premium, or I like the premium idea better because you pay for something and then you get it, and you don't always have to be cautious and think about 'Oh, how much more do I want to pay here'." (INTA19, female, 20s)

[86] He doesn't indicate whether the prerequisite is he wants to make a living developing games or that also other sectors and careers are possible. Then again, he likely says it mostly as a figure of speech.

As such, she referred to the quality of cultural products that the free-to-play model, according to her, inherently undermines, as the game experience would be interrupted by the decision to spend real money or not. She thereby leveraged *ludological values*, while acknowledging the possible conflict with *values of commercial,* particularly *economic success* (Kultima & Sandovar, 2016). In terms of Banks (2017), this indie designer is mostly an emulative competitor, but in order to enable "further contributions to the practice" (p. 46), she had to adopt some strategies of market competitors.

Drawing from similar ludological values, namely the idea that a game experience should offer a closed experience that is not interrupted by microtransactions, an indie game artist argued against free-to-play, even calling it a "philosophical decision":

> "That's our business model; making a game, putting it on the market, and selling it, pretty basic. No free-to-play, no add-ons, nothing at all. [...] Also this is more like a philosophical decision, because we didn't want to make games where you had to buy content. [...] From our own perspective, I like to buy a game and have it all [...] in my eyes it's absurd, you buy the whole experience, you go to a movie and you don't have to pay every 10 minutes so you get the whole package, yeah." (INTA6, male, 30s)

Later he added that especially in the case of his preferred genre, which was "narrative games", microtransactions would not work, as it "has to work as a whole artistic thing, [so] you can't sell anything" (INTA6, male, 30s).

Some of the free-to-play developers interviewed in this study were aware of indies' rejection and commented on it. For example, the head of games of a small studio regarded it a rather naïve view to cling on to the premium model and compared it to moral panics typically surrounding media in their early years:

> "Q: About free-to-play, as you might know, it's also controversial, or it has been at least a controversial monetization model, what is your personal opinion on that?
>
> A: Ah you mean that people don't like these microtransactions? And this free-to-play? There are a few people who wish that everything must be premium? ((laughing)) Yeah, this is relatively easy because it's the same as 'oh, the TV is so bad, or the Internet'. You always see these crappy things, but it's exactly that what most of the customers use. So, we tried out premium games, because we, even in the children's sector, we guessed that premium is still alive, and we tried out a game called [name of the game], which was a very cute brand of a knight. And it won't work, because people, even families, don't pay upfront. So, it's nice that there are a few people who said 'hey, give me a premium version', but when people don't use that because they like to try out, it's sure that everyone will create a

> freemium game. Because good principles don't pay economically. So many indies out there are saying 'no, we're not having ads, we're not having all these IAPs [in-app purchases], we have a premium version and we think that quality will be the best, and with that we will reach the stars' but, that won't happen anymore." (INTB3, male, 30s)

Similarly, a level designer at a free-to-play mobile game studio explained that he needed to take monetization into account in all his design considerations by keeping in mind that "this is a commercial game, we're not just making an indie game to express our feelings, let's make sure that players are going to spend some money" (INTB1, male, 20s).

In sum, as the indies are able to make their own decisions about their games' business models, they mainly develop games with a premium model rather than microtransactions. The arguments they used for explaining this decision express their ludological values ("good games are paid for once upfront and are not interrupted by microtransactions") as well as societal values, that is, being concerned about the effects on players ("I don't want to make games that are addictive"). These arguments resonate with the criticisms voiced in the abovementioned game reviews and are thereby in accordance with the overall discussion about the freemium monetization model. When compared to the kinds of player reactions to microtransactions that Jan Švelch (2017) identified in a discourse analysis, the indie attitudes tie in with the "discourse of *unacceptability*", which is "strict in its rejection of microtransactions",[87] as opposed to the "discourse of *diversification*", which is "open to the possibilities of microtransactions" (p. 111, emphases original). As such, the indie developers interviewed in this study hold strong shared norms, hinting at indies as an occupational (sub)community. This follows Weststar's (2015) argument to consider sub-sectors within the "multi-faceted" games sector with a "changing face" (p. 1248). According to Weststar, the heterogeneity of the games industry might be caused by the societal issues the sector grapples with, of which the controversial free-to-play model is likely to be one.

[87] Note that Švelch (2017) distinguishes between free-to-play games and full-price games with additional microtransactions, and his discourse analysis concerns player attitudes toward the latter. At the time of the interviews with indies in 2015, the model of full-price games with microtransactions was not as wide-spread yet, hence the developers mainly distinguish between free-to-play and premium.

6.5 Different levels of norms: Games, players, and the development of free-to-play games

However, as explained in this chapter's introduction, judgments on free-to-play games often concern specific monetization techniques rather than the monetization model in its entirety. After the first heated debate on the ethics of the business model as a whole had calmed down, the discussion became more differentiated and was increasingly about the implementation of particular kinds of microtransactions (Chew, 2016; Paul, 2020; Švelch, 2017). All interviewees in the study, that is, both the ones that developed free-to-play games and those that did not, confirmed that certain aspects and implementations of the monetization model were questionable. For instance, a product lead who was generally a free-to-play advocate, acknowledged there are "degrees of evilness in free-to-play and monetization" (INTB2, male, 30s) and a producer stated that "there's definitely unethical monetization" (INTB6, male, 30s), whereas a studio game director distinguished between "exploitative free-to-play" and "free-to-play done right" (INTB7, male, 30s). As such, in terms of Švelch's (2017) discourse analysis mentioned above, the free-to-play developers' views corresponded to the "discourse of diversification", which regards certain monetization techniques less harmonious than others. When taking a more detailed look at the judgement of different monetization techniques, one can distinguish three dimensions or levels that are at work when game professionals talk about their values and norms vis-à-vis the free-to-play monetization model. These are 1) the games themselves 2) how these games affect players and 3) their development processes. Norms can overlap across the different levels, but they can also contradict each other.

Before going further into the game developers' views, let me briefly explain these levels in more detail. The first dimension is concerned with the kind of games that are developed with the business model, that is, it addresses free-to-play games as cultural products. The norms on this level are based on the sort of values that Kultima and Sandovar (2016) label *ludological values*, which include the importance of enjoyable, "high quality" games with interesting game mechanics. This connects to the discussion around whether free-to-play games can be good games in and of themselves, and addresses questions such as whether the game experience is inherently corrupted by the possibility of spending real money in it.

The second dimension is that of the player, that is, the consequences free-to-play monetization has for those playing them. Norms about this dimension are based on what Kultima and Sandovar (2016) call *societal impact and cultural values* and would include (which,

however, is not explicitly listed by Kultima and Sandovar) the aim to not make games that exploit players, or display the said "dark game design patterns" (Zagal et al., 2013). David Hesmondhalgh and Sarah Baker (2011) also identify these two levels as factors for how creative work is morally perceived, as they regard the "social and cultural value of products" a critical dimension to the understanding of "good work" (p. 36). The product dimension of "good work" includes "excellent products" and "products that contribute to the common good" (p. 39). As such, its opposite, that is, "bad work", involves "the production and dissemination of (a) inferior goods and services, and (b) products that diminish the well-being of others in society—or even harm them" (p. 36). In the current study, most game developers' responses to the question of how they differentiated between objectionable and acceptable free-to-play monetization were on these two levels. This means interviewees leveraged arguments both on the level of the game itself, that is, "goods and services," for example by indicating that microtransactions should not break the game balance, and on the level of how games affect players, by voicing the view that microtransactions should maintain fair conditions for paying as well as non-paying players.

The third kind of norms however concerns the *development* free-to-play games. As such, it is based on *values of production and creation process* and can be subsumed in the value category that Kultima and Sandovar (2016) designate *development as a challenge*. This value addresses the actual work as a game developer as an interesting, fulfilling activity and thus involves the development process of free-to-play games rather than its outcomes. In line with this, Hesmondhalgh and Baker (2011) not only mention product but also process qualities when addressing conceptions of good work and bad work. They list "interest and involvement" as factors that affect the process dimension of good work—and "boredom" as the counterpart for bad work (p. 39).

While the first two levels are often addressed together, the third dimension can be isolated more easily, or as Hesmondhalgh and Baker (2011) argue, one can separate "the intrinsic value of work done well [...] from the question of social contribution" (p. 37). As such, creating free-to-play games can be considered a more or less interesting job as compared to creating premium games, which does not necessarily say something about how free-to-play games as cultural products are judged. As I will show below, some interviewees indeed explicitly distinguished between these dimensions. Therefore, I will address the first two levels

together in the following sections, whereas I will go into the third level separately in section 6.8.

6.6 Differentiating between good and bad monetization

6.6.1 Fairness

One of the questions to the interviewees that developed free-to-play games[88] was how they labeled and categorized various monetization techniques, also for the sake of communication with peers on, for example, blogs and industry events. Yet, a shared classification or industry-wide labeling of different monetization techniques did not seem to exist (as discussed in chapter 2, academic classifications do exist, for instance, by Alha, 2020 and Paul, 2020). Some industry veterans have attempted to standardize names for different categories, such as Will Luton (2013) in his book *Free2Play. Making Money From Games You Give Away*. Luton suggests the „four C's", which stand for four reasons to spend money in free-to-play games: *customization*, *competitive advantage*, *convenience*, and *content*. On a more basic level, in the 2012 presentation I referred to in the introduction of chapter 4, game designer and researcher Aki Järvinen distinguished between "surface" and "core" free-to-play monetization. Whereas the former adds the monetization on top of the gameplay rather than being intertwined with it, the latter is deeply interwoven with the gameplay and therefore also more "tricky" to design (Järvinen, 2012). However, none of these (basic) classifications seem to be shared across all game professionals. Instead, the interviewees used their own groupings or categories—which were shared at company level at best—to communicate about different monetization mechanisms or referred to well-known free-to-play games to make sure their co-workers know what they are talking about. When asked how they judge the monetization of a game from a moral perspective, developers rather referred to more abstract criteria and principles.

One of the most mentioned principles used to delineate good monetization techniques from bad ones, is *fairness*—which was also recognized as a relevant issue for both free-to-play players and developers by Alha (2020). The interviewees in the second interview study, who were explicitly asked how they differentiate between acceptable and objectionable monetization techniques, all indicated that—using different wordings—they wanted the

[88] This question was explicitly asked in the second interview study in 2017, which had free-to-play as the main topic (n=9), but also came up in the first 2015 study in the cases where freemium games were developed (n=9).

monetization in their games to be fair. For instance, the monetization expert emphasized that "the player should never have the feeling that he's handled unfairly" (INTB8, male, 50s) and a producer of a small studio stated that "obviously you want to be fair" (INTB6, male, 30s). A studio game design director called free-to-play "probably the most fair and interesting monetization approach" because it allows players to try out the game before paying anything (INTB7, male, 30s).

This shared principle of fairness supports Banks' (2017) notion of the moral economy of cultural work, as it shows how the work practices of free-to-play game developers are subject to broader societal norms and values, in this case the general virtue of fairness. Kultima and Sandovar (2016) do not include fairness in their framework of game design values, but it could be added as a subcategory of both *ludological values*, as it can be considered an inherent quality of a game, and of *societal impact and cultural values*, that has a meaning mainly vis-à-vis the players. As such, fairness operates on the abovementioned levels of both games and players (while not concerning the third level, i.e., of the development practices).

Yet, at the same time developers were aware that fairness is a very subjective value, that is, what is fair to a great extent lies in the eye of the beholder. As such, it leaves leeway to different interpretations, something also found by Alha (2020): "the revenue model can be seen as fairer or unfairer to certain players, depending on their perspective" (p. 88).

Upon being asked to specify what defines fair monetization, the answers and examples used by the interviewees can be categorized in three more specific principles: 1) offering the player (perceived) value for money, 2) being transparent regarding monetization techniques and 3) offering non-payers and payers an equally good playing experience. In the following, I will unpack the judgement of single monetization mechanics with the help of these three criteria, which includes a section about the thin line between gambling and freemium games, because it ties in with the first two principles of value for money and transparency.

6.6.2 (Perceived) value for money (fairness 1)

Firstly, according to the interviewees, for a free-to-play game to be fair, the virtual goods or advantages that players obtain when spending money should have a value that corresponds to the amount of money spent. Even though this might sound trivial, the value of goods or advantages in the game is rather artificial, as the benefits of in-game-purchases such as speeding up processes or extra moves do not actually cause (high) costs for the developer or publisher. Therefore, as Hamari (2015) points out, "free-to-play developers have faced the

problem of [...] how to create situations in the game which would justify and create value for the virtual goods in order for the players to perceive them as desirable" (p. 299). Some interviewees acknowledged the subjectivity of pricing and the importance of perception of the players. A product lead in a large studio acknowledged: "We're selling virtual items at the end of the day, which are, essentially free, right? So pricing is pretty important" (INTB2, male, 30s).

As such, developers regarded fair pricing for in-game purchases a delicate balancing act. For example, a head of games of a small studio, which recently started developing free-to-play titles, described how they struggled with this:

> "This was the first game [we made] with a premium currency. When you spent for example twenty dollars in [name of the game], it feels like you spent two dollars. It's because you can't really see why it is cool and this is one of the most difficult things, to give the player the feeling of an added value" (INTB3, male, 30s).

A game designer made the subjective value of microtransactions even more explicit:

> "It has a lot to do with how players perceive fairness. I don't want to sound super relativistic, but yeah, I think if players perceive it to be fair, then you can put it [the monetization feature] in the game" (INTB1, male, 20s).

Some studios conducted playtests that specifically aimed at getting to know what players in the game regarded valuable and thus were willing to spend real money on. One large company, of which a game designer and a product lead were amongst the interviewees, had an interesting strategy for testing the perceived value of virtual good in an early stage of the development process: The studio conducted an internal playtest, that is, with their own employees, who would spend real money in the game prototype, which was donated to charity after the test ended. The interviewed game designer explained about these playtests:

> "It gets the people in the studio to really deeply think about 'Oh, I really want to win, so if I had real money on this game, what's worth to spend my real money on?' That is also part of our balancing process, what people perceive as having value." (INTB4, male, 30s)

As is shown by these citations, in many of the interviewees' stories and examples, the reason they want the monetization techniques to be fair seems to be a commercial one as much as a moral one. If players perceive the pricing as fair, so their reasoning, players will

more likely convert. In addition, fair pricing might lead generally to more positive attitudes toward the games and consequently a bigger player base, in turn increasing the chances of some of these players spending (a lot of) money (cf. Hamari, 2015).

6.6.3 Transparency (fairness 2)

A second principle for fairness mentioned by several interviewees can be summarized with the term transparency, referring to the extent to which the game openly communicates about its monetary intentions and monetization mechanisms, so that players "know what they are buying" (INTB3, male, 30s). The clearer the communication about the monetization, the fairer the game, according to the developers. This is also where interviewees criticized other studios the most, that is, they accused other developers, especially those in the early days of free-to-play, of keeping their monetization mechanisms opaque. Accordingly, Alha (2020) found a self-reported lack of transparency in the free-to-play sector and calls for an increased transparency, along with responsibility and legislation (p. 118).

The interviewees used various examples to illustrate what they consider transparent. For instance, studio game design director (INTB7, male, 30s) explained how in his opinion the legal framework had greatly improved over the last years, referring to the abovementioned EU regulation that stipulates that app stores should notify users upfront about possible in-app-purchases, as well as the corresponding ban of the term "free" to designate such apps. In fact, this regulation coming into effect took away many of his early doubts about the morals of the free-to-play model, of which he initially thought it was particularly problematic for games aimed at kids. The fact that his views overlapped with those of the EU regulators and that he felt more at ease in the sector due to the stricter regulations, illustrates how work morals are permeated by broader societal values and norms, and how the discussions on free-to-play games inside and outside the games industry mutually affect each other. In a similar vein, the monetization consultant described the early, anarchic years as free-to-play's "wild west" (INTB8, male, 50s). The studio game design director (INTB7, male, 30s) furthermore argued that games should communicate clearly about content behind paywalls and condemned games that "give you the illusion that you're advancing but you're not really, and you actually need to pay to properly advance in the game" (INTB7, male, 30s).

A level designer from the same company also regarded honesty and transparency as important assets and applauded how his company has found a good balance in monetizing its games:

> "I think [name of the company] found a good balance, because monetization is very open and clear, crystal clear. So you know it's boosters, and end-of-game purchases." (INTB1, male, 20s)

But unlike his director, who pointed at the lack of notifications at download as a negative counterpart to transparency, the level designer contrasted transparency to what he called "rigged algorithms". Due to their opaqueness, he considered algorithmically guided monetization and pricing techniques "really dirty" as they are—unbeknownst to the player—based on the principle of "the more money you spend, the less chances you have of finding something" (INTB1, male, 20s). He furthermore indicated that, even though he was not completely sure about the legal situation in this regard, for the big companies like the one he worked for it was not worth the risk to try to implement such opaque monetization techniques, because he and other game professionals would not be willing to work on such games:

> "And that [the rigged algorithms], […] although it's illegal I think in most countries […] a company like [name of his company] just couldn't even afford the risk of going through such a silly practice. […] First of all, I like to think, and maybe I am too optimistic, that many of us, like including me, would have problems with that." (INTB1, male, 20s)

Thus, he assumed there are strong shared norms amongst him and his peers that prevented them from creating games with morally objectionable, nontransparent monetization mechanics, even though he acknowledged that this view might be "too optimistic".

Another game designer—who regarded himself a veteran of free-to-play development—also rejected non-transparency by explaining how there is no revenue style that he rejects in its entirety, but that he would definitely never "lie" to his players: "I guess one of the things that I don't do, is lie to them. That's the one line I've always drawn. And always been able to draw" (INTB4, male, 30s). To illustrate this, he also referred to the early years of free-to-play (see chapter 2), particularly to Facebook games that created a misleading sense of scarcity by introducing a limited number of game items:

> "One of the things I was surprised to learn was how many competitors were actually just lying about that number, so it's was just a timer ((laughing)) and they put a number on it. It was like 'Oh yeah, there's a thousand, now there's 900, now there's 800' and I think it was just a countdown to a certain day, and if people started buying a lot, they would slow the timer, so they can make more money.

> And I never did that. If I sold a thousand objects, I made sure only a thousand players had them." (INTB4, male, 30s)

This is an interesting example as this number of "a thousand objects" would be randomly chosen from the beginning, that is, selling 1500 objects would probably neither cause (high) additional costs at the developer side, nor is it likely it would have directly harmed players. So, it seems to be mainly a matter of principle, that is, giving the players the feeling of owning a scarce item as was promised.

In sum, transparency in the sense of open and honest communication were important factors for the interviewees in judging the fairness of the game's monetization. But especially in the negative examples that the interviewees used to illustrate this principle, emphases differed and developers had their own personal non-transparent monetization techniques that they most disapproved of.

Furthermore, as Zagal et al. (2013) point out in their analysis of dark game design patterns, whether something is opaque and thus potentially manipulative (which Zagal et al. refer to as the "disclosure principle") also depends on the players' "literacy". A transparent game should help its players develop such skills:

> "When we argue that dark patterns often manipulate or take advantage of a player, we are also making assumptions on a player's gullibility (or willingness to be manipulated). While a game may employ dark patterns, these may be transparent to players, thus rendering them ordinary patterns or ineffective. By transparency, we mean that players develop literacy in manipulation. One cannot give reasonable consent to manipulation if one does not have the literacy with which to understand when persuasion is occurring and how it is being conveyed or effected." (Zagal et al., 2013, p. 7)

Moreover, they argue that literacy in the case of games and other interactive digital technologies due to their relative novelty might be generally less developed than, for example, for written and spoken texts. As such, according to Zagal et al., "even with a strong pattern, much of the darkness comes from its use and context" (p. 7). Thus, the extent to which a game is transparent about its monetization is not only subjective from the developers' side, but also from the players' side, as it depends on the player's game literacy.

6.6.4 Free-to-play and gambling: loot boxes or random reward mechanisms

With respect to the two principles discussed above—offering (perceived) value for money and transparency—several developers mentioned the fine line between some free-to-play monetization techniques and gambling. Especially when both principles are violated, that is, when it is *unclear* for a player what the *value* of the money spent will be, interviewees thought that this too much resembled gambling.

One of the most widely-used gambling-like in-game monetization techniques is what is commonly referred to as *loot boxes*, which are items that can "usually be purchased in-game with real world currency, and opened for a chance to win select items from a larger pool of variable rarity and desirability" (Perks, 2021, p. 221). As the (second round of) interviews were conducted in the course of 2017, that is, shortly before loot boxes became a hotly debated item[89] (Nielsen & Grabarczyk, 2019), the term loot boxes itself did not come up in the interviews.[90] Yet, the mechanisms the interviewees described are indeed loot boxes—or predecessors of them. In order to analyze the phenomenon in a more neutral and systematic way, Rune Nielsen and Pawel Grabarczyk (2019) prefer the term "random reward mechanisms (RRM)" which consist of three main elements: 1) an "eligibility condition" that triggers a certain 2) "random procedure" that results in a 3) "reward" (p. 174). Nielsen and Grabarczyk stress that when judging RRMs with regard to their resemblance with gambling, one must distinguish between different types, mainly depending on whether the randomized rewards can be purchased but also sold for real money. They argue that only when the RRMs can both be purchased *and* sold it would be a functional equivalent of gambling, whereas when RRMs can merely be purchased but not sold for real currency, this is a form of pseudo-gambling.

The interviewees however do not make such clear analytical distinctions. Some interviewees generally reject random reward mechanisms, especially when they aim at players vulnerable to addiction. For instance, the monetization expert deems gambling mechanics as "playing on the weaknesses of the human mind", which one shouldn't try to monetize (INTB8, male, 50s). In a similar vein, a game designer regarded RRMs as gambling by comparing them to practices used in casinos. He argued:

[89] That is, loot boxes mostly became the subject of public criticism when they were implemented in premium games, that is, games that were also paid for upfront. The game that triggered the controversy around loot boxes most was Battlefront II (Electronic Arts) in late 2017 (Perks, 2021).

[90] The term 'loot' was however used by two interviewees, one to refer to 'loot rolls', which would also be random reward mechanisms.

> "I think it's good that most countries have laws against some practices that casinos use, because most people luckily have the means to manage their finances and their expectations, but there's a part of the population that doesn't. I think if you intentionally push to cater to those people in your product and base your finances on those people, then you start becoming exploitative." (INTB1, male, 20s)

It is not clear what kind of casino legislation the interviewee exactly referred to, but as elaborated above in the section on regulatory aspects of in-game monetization, for games specifically there are hardly any legal restrictions yet (that is, up to the moment of writing). It is however notable that the game designer drew from formal legal regulations (or at least, the law as it is known to him) to strengthen his argument.

While most interviewees mostly criticized other studios' practices or common monetization techniques from the past without including themselves, one interviewee used the pronoun "we" to invoke a sense of collective responsibility and was more reflective regarding his own practices. This interviewee, the product lead at a large mobile studio, for instance indicated that "we're really straddling this line between […] casino style games and […] regular video games" (INTB2, male, 30s). He continued to compare current practices to the early years of coin-up arcade games[91] and called it a gray zone:

> "If you think back to the seventies and eighties, when video games were just getting started, there was the same question. When you're popping quarters in a machine, designers would specifically design machines to get players to die in a spot that gave them higher chance of dropping another quarter into the machine. So, yeah, there's a very big gray area there. And I think with many designs, if you start obfuscating too much, things like chance, and gambling, then you're doing very evil practices there." (INTB2, male, 30s)

At the same time, developers also acknowledged the possible appeal of chance and gambling-like monetization techniques, and regarded chance as an inherent part of games (e.g., the use of dice in board games is widespread to create randomness). For example, the same game designer that condemned exploitative techniques above, said: "I mean it's fun, there's a reason why we like gambling, we as human beings. Like, you just press the button and something will come out, it's exciting, we love that" (INTB1, male, 20s).

So, spending money on something while not knowing *exactly* what you obtain is not considered problematic in itself. Most developers however drew the line by saying that every

[91] The comparison between free-to-play and coin-up arcade games is also made in chapter 2.

single in-app-purchase should at least yield *something* of value. This means, it shouldn't be possible to buy something that can only be valorized in combination with other (bought) virtual goods, which I will discuss more in-depth below in the section about *gacha*. An interesting view on this matter was voiced by the freelance monetization expert. Although he explicitly stated he was against gambling mechanisms, he differentiated certain chance-based monetization techniques from gambling by arguing that a player can increase chances by spending more time:

> "There is a lot of randomness in these games. Like, you get a chest and you don't know what's inside, you open it and there is random stuff in there. Many people claim this is gambling, but it's actually not, when you control the frequency of the chest you get, meaning if I spend more time in the game I'm getting more chests, meaning that I can actually raise the chance to get the stuff I want, then it's no longer gambling." (INTB8, male, 50s)

Thus, according to him, by merely having a similar chance more often, the mechanic stops being gambling, as spending more time in the game means you will get the (same) chance more often. What he presumably aimed to point at is that the chests cannot be purchased only by real money but can also be obtained by playing the game, for instance, by spending *soft currency* that can be collected by spending more time in the game. As such, even though using different wording, he likely referred to the same distinction Nielsen and Grabarczyk make between their categories of RRMs, namely whether it is an actual purchase (with real currency) or not.

The question of whether one can obtain the same items by just playing longer instead of paying relates to the principle of offering equal possibilities to non-payers and payers, which I will elaborate upon further in section 6.6.7 below.

6.6.5 Free-to-play and gambling: Gacha

The said product lead in a large mobile studio (INTB2, male, 30s) had also given the issue of gambling some more thought, as became clear when he explained his view on the gacha mechanic—a popular monetization feature originating from Japan (Shibuya, Teramoto, and Shoun, 2015), which was also mentioned by some other interviewees in the context of fairness

and transparency.[92] Gacha refers to a player paying (either soft or hard) [93] currency to spin a wheel in order to obtain a randomized item or character, and its graphical representation typically resembles children's toys vending machines (Shibuya et al., 2015). So far, gacha relies on similar principles as loot boxes and it is mainly the graphics that sets it apart from loot boxes. Often, however, the obtained item is part of a predefined set or series. In the case of "complete gacha" or "kompu gacha", as the product lead (INTB2, male, 30s) explained, a particular item only gains value when combined with the other items of the set and is thus worthless as a single item. Typically, the first items of the set are easy to obtain, whereas the last item is rare, arguably resulting in a deceptive situation. In the milder variant of gacha, called *gachapon* or, as the interviewee calls it, "regular gacha" every single item has a certain value, but completing the set will increase the value significantly.

While the product lead condemned complete gacha and referred to this as "very evil practice" (INTB2, male, 30s) that he would never implement in one of his own games, he did not have problems with gachapon. For defining that, he applied the abovementioned rule of thumb of: "Each time that I'm rolling the dice, I'm getting something of value. I think that's important" (INTB2, male, 30s). In fact, the difference between complete gacha and regular gacha was so significant to him, that although he fully rejected complete gacha, he used regular gacha as a design tool, namely to pace his games. In explaining this, he again pointed at the delicacy of the matter:

> "We don't have to pace with things like energy or timers, or anything like that. Instead, if we pace them using gacha, then fifty percent, or sixty percent of players are going to be able to access all the content. But then *if* you as a paying player really want that extra content, really want to collect the sets, really want to push yourself to compete at the very highest level, *then* you start to pay. So I think it's actually a nice way of monetizing, but, yeah, there's a very thin line there, you can go over and you can immediately start getting very, very evil." (INTB2, male, 30s)

Thus, the fact that this product lead assessed two variants of one monetization mechanic very differently while acknowledging the fine line between them, illustrates the sensitivity needed from developers in the free-to-play realm.

[92] As such, the term gacha forms a notable exception to the abovementioned observed lack of an industry-wide vocabulary to designate monetization techniques.
[93] Hard currency is the kind of in-game currency that can only be obtained through real-world money, while soft currency can also be obtained by playing the game.

In a similar vein, in the 2015 interview study, there was a researcher at a large mobile game developer among the interviewees, one of whose tasks it was to analyze successful games, especially in the Asian market. According to him, in line with the product lead's reasoning, every in-game purchase should legally provide "some value at least" (INTA13, male, 30s) and therefore complete or kompu gacha mechanisms would be illegal. He had extensively analyzed one mobile free-to-play title that was particularly popular in Japan and heavily depended on gacha mechanics for its monetization, called *Puzzle & Dragons* (GungHo Online Entertainment, 2012). The researcher did not so much go into his own moral standpoint concerning gacha,[94] but rather analyzed its workings in a systematic way in order to explore the possibilities of implementing such monetization mechanics in the studio's own games.[95] One of his findings pointed at the role of cultural differences between players in Asia versus Europe and how this defined what was generally accepted and popular. This was, according to him, not only connected to the morals of gacha monetization, but also to its complexity and the typical game concepts in which it is embedded:

> "For example, […] it's a real problem when other companies tried to implement gacha mechanics in [the] western market. It was often the case that it's either too complex or just an overload for the player when it's the core monetization mechanic. […] I guess lots of genres and gaming concepts in general that worked in Japan are really only working cause gacha is the main monetization concept, and that's why maybe these concepts […] could not just work here [in Germany]." (INTA13, male, 30s)

To solve the problem of western players not being used to the complex gacha monetization (yet), he explained how it could first be implemented in Europe without being monetized for players to get used to it in a 'harmless' way, that is, as a form of simulated gambling in which the "randomized rewards [are] not for sale or purchase" (Nielsen & Grabarczyk, 2019, p. 198). To illustrate this, he used Finnish game developer Supercell, who were already experimenting with gacha in their game *Boom Beach* (2014), as an example:

> "What I meant with complexity, maybe too much complexity or so, that's a way to simplify a feature, to […] monetize it less hard, or to just give it for free, just to introduce the feature. For example, Supercell just introduced a gacha-like feature in Boom Beach, you could build some statues there […] and then you can build the statues and the result is more or less gambling […] but it's not monetized at all, just

[94] The assessment of single monetization techniques was not part of the interview guidelines in this study.
[95] As explained in chapters 4 and 5, analyzing other games' monetization techniques is a common element of the free-to-play development process.

> the PvP [Player vs. Player] fights, you can do more when you pay money, and faster, but in general it's not monetized and that's a good way to get people used to such mechanics." (INTA13, male, 30s)

The way this interviewee describes and elaborates on the gacha mechanic again shows the subjective nature of how monetization mechanics are perceived, strongly depending not only on personal preferences but also on cultural conventions.[96] It thereby ties in with the moral economy approach, as societal values and preferences permeate the practices of game development.

6.6.6 Keeping non-paying players happy (fairness 3)

The third principle for fairness is about the balance between what a game offers to paying players compared to non-paying players. In the 2017 interview series, all interviewees but one[97] talked about their efforts to keep the game attractive to non-paying players. The typical rule of thumb was that non-converting[98] players should be able to enjoy the game just as much as paying players. This ideally entailed the players who did not spend money having the possibility to gain access to the same content and reach the same levels as paying players and being given a reasonable chance to defeat a paying player in a direct battle (the latter obviously only applies to multiplayer games). For example, the monetization consultant explained how he measured a game's fairness in terms of its equal entertainment value for paying and non-paying players:

> "What I measure is the fairness of the game, how it actually gives rewards to the players. And if I see that there are unfair systems there, I try to, you know, recommend changing that. The player never should have the feeling that he's handled unfairly. And unfair usually means that someone who pays, you know, is better in this game or has more fun in this game than I am. That should not be the case. Payers and players should be even. And that's not as easy as it sounds. But you can actually put in some systems for certain mechanics you're thinking about, which evens the playing field and then you're fine." (INTB8, male, 50s)

[96] See also Paul (2020, pp. 16-17) for more on cultural differences regarding accepted and conventional game mechanics in Asian (mainly Chinese) vs. Western markets, which he connects to the less dominant position of PC and console games in the Asian markets. Chew (2016, p. 230) also addresses cultural differences in game preferences between Eastern Asia and the USA.

[97] The one interviewee did not argue the opposite; she just did not address it explicitly. As mentioned before, the 2015 study did not address the morals of different monetization techniques in detail.

[98] Converting is the industry term to designate non-paying players turning into paying players (hence the term 'conversion rate' to indicate the percentage of players that pay).

At first this principle might seem at odds with the commercial interests of the developers, as paying players are needed in order to generate income. However, as selfless as it sounds, it is not only driven by values such as inclusion or accessibility (cf. Kultima & Sandovar, 2016), but a larger general player base simply also means more paying players and, thus, revenue—especially if it is just a small fraction of players that converts. Therefore, attracting as many players as possible might be (initially) prioritized over getting a higher conversion rate, and often the connective properties of social media platforms are used to firstly introduce a game to a widespread audience (Evans, 2015; Nieborg 2015). In addition, developers need to maintain a good relationship to their player community, meaning that if they "push too hard on monetization, they are betraying the trust of players and breaking the game" (Paul, 2020, p. 30).

Most interviewees acknowledged that keeping non-paying players happy was mostly driven by the motivation of attaining a large, loyal player base rather than morals about, for instance, including less wealthy players. Yet, they believed that attracting *and* maintaining many players could only be reached by creating good games, pointing at the importance of ludological values (Kultima & Sandovar, 2016). For instance, a small studio producer explained how some features were not designed to be monetized, but merely to engage the players:

> "It's not like every feature has to monetize, I think features have to make a game better and […] push towards both engagement and monetization. It's not only you want people to pay, you also want them to play for a long time, you want them to like, engage with the game. We built a feature, for example, […] a team name generator, and you can generate team names. It's quite fun, but it's not going to be monetized ever, it's just something to make people feel invested in the game and feel like they personalized it, and hopefully then increases engagement. But it's not like something where there's any monetization plan on it.
>
> Q: So the reason behind that is to keep your players happy, basically?
>
> A: Yeah, exactly." (INTB6, male, 30s)

Likewise, another interviewee explained how one of her concerns is to keep all players satisfied, but also that paying players needed an 'audience' to whom they could show off their purchases:

> "I also want to keep the non-paying users happy, because I think these are the games which are lasting longer, and […] I don't want to scare my users away, and I want to have games running for lots of years. […] You can do this [i.e., scare users away] when you know, okay, the game will only be on for half a year now, and then squeeze them as hard as you can. But I would always go for keeping the crowd on

> the game […] and not churning [i.e., players that quit playing] because of the monetization. But also getting your non-paying users very, very, very happy so that the paying users can beat the crap out of them. So [that they] be so much better at the game, have so much cooler stuff, or look better, or have the cool stuff earlier than the other ones, stuff to brag about." (INTB5, female, 40s)

Thus, to her, a game's sustainability depended on its ability to retain all players in the game. As such, these reasonings for keeping non-paying players satisfied support Banks' (2017) notion that the motives to work in the cultural industries are often "complex and diffuse, not simply 'economic' or 'cultural' in character" (p. 43).

6.6.7 Avoiding pay-to-win with pay-to-skip

Yet, there is an inherent tension between the abovementioned principle of offering players an added value for in-game purchases and the principle of keeping non-paying players happy: On the one hand, players that convert need to believe that purchasing in-game items is money well spent, whereas on the other hand, non-paying players should be kept satisfied and not feel they have a disadvantage against paying players. For one of the indie developers from the 2015 study, this conundrum was one of the reasons not to develop free-to-play games:

> "You could have in-app-purchases, but there you have to be careful to make the game playable even without buying them, and then you have to think 'what's the point of having them?' So you have to include them [i.e., IAPs] so that people are encouraged to buy them, but they don't *have* to and, yeah, it's really hard, and I think it takes away a bit of the game, the whole feeling of a game." (INTA1, male, 30s)

The bad reputation of this often-condemned monetization mechanism of "pay-to-win" (Alha et al., 2014; Paul, 2020; Zagal et al., 2013), which is said to "cheapen the experience of fair challenge" (Švelch, 2017, p. 114), was also echoed by the monetization consultant: "Pay-to-win is only in the bad games. The reason why they put pay-to-win in, is because they want to milk out the last penny of the users in order to survive" (INTB8, male, 50s).

But, as the quote of the indie developer demonstrates, pay-to-win might be hard to avoid, so when developers cannot find a way around it, they need to disguise or soften it in some way. As one small studio producer indicated: "I think many people do pay-to-win, it's just not perceived as pay-to-win" (INTB9, female, 30s). Likewise, the abovementioned game designer who recently turned from indie development to a free-to-play studio, hinted at the blurry definition of pay-to-win when talking about the studio's view on monetization:

> "Q: In what ways does in-app monetization take place?
>
> A: Mainly you buy premium currency and with the premium currency you buy everything else. We don't do-, or we always *say* we don't do ((laughing)) pay-to-win, so the philosophy at [name of the studio] is that people should buy a lot and they should be happy with their purchase." (INTA19, female, 20s)

Similarly, the creative director of a small studio reflected on how she cannot fully avoid pay-to-win, as the preferred "customizables" (e.g., selling cosmetic adjustments for an avatar), does not cater to some target groups:

> "The moment you do free-to-play there is no way of not doing pay-to-win. So lots of people differentiate between pay-to-win monetization and not pay-to-win monetization. But […] you can give out customizables, so that your skin looks different, or you have another dress or something, but there is only a specific little type of group who's going to buy that stuff. And if you only monetize that way, you will lose a lot of potential that you could also monetize." (INTB5, female, 40s)

A possible solution that many interviewees mentioned for keeping non-payers happy and simultaneously offering paying players value for money, is to have them pay for time reduction, that is, "pay-to-skip" (Zagal et al., 2013). This corresponds to Alha's (2020) conclusions, that "skipping waiting and grinding can be seen as a more accepted way to use money compared to direct power content, such as weapons or boosters" (p. 31). The general rule of thumb the interviewees applied in this regard was that any item or skill level should also be achievable by spending more time in the game—often by the tedious activity of grinding. This strategy was for instance favored by the monetization specialist:

> "Pay-to-win can be circumvented really, really easily, by allowing the user to spend time in the game instead of money, and the easiest way to do that is to allow the users to grind the currency you're usually selling." (INTB8, male, 50s)

The creative director likewise explained how her game, a collectable card game for mobile, could counter accusations of pay-to-win because it offered any option to a non-paying player as well:

> "What I like is the approach that you can find everything in the game. If you travel far enough, if you play long enough, if you are just a lucky bastard and do a perfect loot roll, you get the most exotic stuff. […] I think that everyone who complains about that is out of their mind." (INTB5, female, 40s)

In a similar vein, a game designer at a large studio talked about how to create hurdles for non-paying players:

> "I would say for a good free-to-play game that's a, a pretty good rule of thumb for me, yes, you should be able to play the game without paying. That said, you can't always play the game in the way that you want to without paying, if that makes sense.
>
> Q: It might take way longer for instance?
>
> A: Yeah, it might take a long time." (INTA15, male, 30s)

However, as the example in this chapter's introduction about the review of *Harry Potter: Hogwarts Mystery* illustrates, waiting for something to progress can also be perceived as immoral, especially when it feels unnecessarily slow and when, in this case, the player has to watch the character suffer. Other reviewers and media have also criticized that some free-to-play games have extremely long waiting times or tedious activities that effectively force a player to convert or accept that beating paying players is impossible. For example, in a 2014 article on games website Eurogamer, Dan Whitehead makes a witty comparison to illustrate this point:

> "Technically, you can play these games without ever spending money, just as you can technically walk a marathon with a washing machine chained to your ankle, but every 100 metres they add another washing machine and move the finish line back a few miles." (Whitehead, 2014)

Thus, there seems to be a discrepancy here between developers and players/reviewers about whether the fact that one *could theoretically* achieve everything by waiting or spending more time in the game justifies this monetization mechanic in all cases. In accordance to this, the abovementioned producer (INTB9) did not draw the distinction between pay-to-win and pay-to-skip so clear-cut:

> "Q: So would you say your games are pay-to-win?
>
> A: ((pause)) I mean you can definitely pay to play *better*. Like the idea with this type of monetization is also that you can take shortcuts. So I would rather say 'pay to do shortcuts', if that makes sense.
>
> Q: A shortcut would be to speed up a certain process for instance?
>
> A: Yeah. Or like, get something that you otherwise would have been having to grind to get." (INTB9, female, 30s)

The general reasoning to prefer pay-to-skip over pay-to-win leads to an interesting logic, voiced by some of the interviewees: Players that spend money are considered lazy, whereas 'hardworking' players will achieve the same by spending more time in the game. For instance, a level designer reasoned:

> "You can play them [his company's games] without spending anything, just you need to spend much more time, and be really better at the game, get good and grind your way to the end. If not, [if] you're lazy, you can spend." (INTB1, male, 20s)

Similarly, the monetization consultant argued that free-to-play games should ideally have repetitive activities that can be done over and over again, and as such can also be skipped for a fee. He compared this to premium games, that is, games with a one-time upfront payment, which do not have such features:

> "[in free-to-play games] you have to have game mechanics that are what we call systematic, where you can kind of repeat actions in different settings […]. Some players call it grinding, but that's just one of the many systematic things we have, or leveling up. And if you have a premium experience, grinding might actually stand in the way, because players don't expect to work for their entertainment anymore. In a free game, they do this, because it actually is free, right? So, to actually earn things in the game, they are willing to work for it. In a premium game they already paid and they expect to be entertained." (INTB8, male, 50s)

This logic addresses the complex relationship between time and play, which has been explored by scholars both within and outside of game studies (e.g., Calleja, 2011; Csíkszentmihályi, 1990; Höltgen & Van Treeck, 2016). According to Dutch cultural historian Johan Huizinga (1980), one of the defining characteristics of playing is that it is "absorbing the player intensely and utterly" (p. 13).[99] As such, playing games is considered to be a pleasurable pastime in itself, which possesses an "inner endlessness" (Dippel & Fizek, 2017). The commonly accepted strategy to design free-to-play games deliberately with less interesting or pleasurable parts in order to be able to monetize skipping such parts therefore defies the notion of a game as a joyous activity and pastime in itself.[100] Although free-to-play as a revenue model is sometimes (historically) compared to the coin-up arcade games that were

[99] The English definition is from a 1949 translation, the original Dutch reads "het spel […] een vrije handeling […] die den speler geheel in beslag kan nemen" (Erven Huizinga, 2008).
[100] It could be, however, compared to sports, where one needs to train in order to get better, which arguably leads to more enjoyable experiences.

popular in the eighties, in the sense that both types of games are monetized through microtransactions (e.g., Ball & Fordham, 2018; Nielsen & Grabarczyk, 2019; also addressed in chapter 2 and by the product lead in the citation above), the time/play relation is actually reversed in the case of free-to-play, as one pays to play *shorter* rather than *longer.* In line with that, Christopher Paul (2020) argues that adding more coins in an arcade game, that is, prolonging playing time, will likely lead to an increase in player skill, whereas grinding or spending money to skip time does not improve a player's skillset. As such, the logic implies that free-to-play games—or at least the grinding parts—need to be completed as quickly as possible, rather than that the activity in itself is inherently satisfactory. This reasoning justifies the 'ludological objections' some have toward free-to-play games. Elizabeth Evans (2015) refers to this phenomenon of monetizing shortcuts as the "impatience economy" (p. 1).

Another notion that enters the equation in the interviewees' logics above is the relationship between work and play, which has also been extensively academically discussed. Play and work are said to emerge, or interfere, ever more in contemporary digital society (Dippel & Fizek, 2017), for instance as game and play elements enter the workspace in the form of gamification (cf. Fuchs, Fizek, Ruffino, and Schrape, 2014; Walz & Deterding, 2014), but also vice-versa, namely work elements entering games (designated by the term *playbour*, cf. Küchlich, 2005). The increasing interconnection of work and play reflects in the reasonings of the game developers. That is, characterizing players who prefer paying to skip tedious parts—or rather play premium games in the first place—as lazy, and the monetization consultant blaming them for "not expecting to work for their entertainment anymore" (INTB8, male, 50s), suggests that players should be prepared to work in some way in order to earn it. Moreover, by adding "anymore", he implied that this unwillingness was somehow new, and players were once more hardworking. Yet, the logic he voiced has likely only appeared after free-to-play games became widespread, as previously premium (digital) games without microtransactions were the norm rather than the exception—and if there were microtransactions in place such as in the arcade games, this was to prolong playing rather than shorten it. Moreover, in the pre-digital era, as Jakko Stenros and Olli Sotamaa (2009) point out, traditional games were not owned as intellectual property by anyone, and Paul (2020) similarly indicates that even the earliest digital games were not made as commercial products or services, because games have their roots in "a communal activity where there was no viable business market for years" (p. 4). Thus, traditionally, games were mostly free to be enjoyed

by all, without players having to work in advance to earn them. In other words, the nostalgia expressed by the monetization consultant (INTB8, male, 50s) can hardly be explained by actual developments in the field of (digital) games, but rather works as a way to justify pay-to-skip as a more morally accepted alternative to pay-to-win.

6.7 Whales, VIPs and hobbyists: The perception of big spenders

As addressed above, a typical concern of critics of the free-to-play revenue model is the uneven distribution of paying and non-paying players. A well-known yet contested term to designate the small part of players that spend most money in free-to-play games is *whales*.[101] In a discourse analysis of the debate around free-to-play in the early 2010s, Matthew Chew (2016) found alleged "whale-hunting" to be one of the main accusations to deem free-to-play unethical: "Because of the heavy reliance on whales for revenue, game design in free-to-play gravitates toward the construction of mechanisms that maximize whale gamer spending" (p. 241). The quote mentioned above, in which an indie developer rejected free-to-play because according to him it "depends on 'whales', to say it frankly, and 'whales' is a nice word for game addict" (INTA4, male, 30s), illustrates how the term is used in negative connection to free-to-play games.

The interviewees were all aware of this criticism, and most had given the issue thought prior to the interview. First of all, some did not like the term whale personally (INTB7, INTB8) or there was an internal studio policy not to use it (INTB2). Countering the accusations, some developers stressed that problematic or compulsive spending behavior was not what their games were designed for—unlike some competitors' games—for instance because at some point spending more money (within a certain timeframe) would not provide the player with any more advantages (INTB1, INTB2, INTB3). A game designer indicated: "I won't say that it's impossible for someone to have an unhealthy relationship with a free-to-play game, but that's certainly not the audience that I've ever tried to target" (INTB4, male, 30s).

[101] Officially, whales are part of a three-category classification, with *dolphins*, that is, mid-level spenders, and *minnows*, that is, low-level spenders, being the other categories (e.g., Chico, 2018; Lovell, 2011; Griffiths, 2016). The classification can be based either on the absolute amount of money spent, for instance, players who spend more than $50 a month, or divided relatively among the player base, for example, defining the top 10% as whales, then 40% dolphins and 50% minnows (Griffiths, 2016; Lovell, 2011). According to Paul (2020) there is even a category above whales, namely 'kraken', who "buy everything" and "seemingly spend without limit" (p. 22). The debate and controversy around free-to-play, however, mostly focuses on whales (Chew, 2016).

Correspondingly, a producer of a small studio explained how he was mostly guided by his gut feeling when asked what spending patterns he deemed problematic:

> "Drawing like, a line in that, I don't think I can do it […] I don't feel like we're trying to cheat people. And that for me is kind of like, if you feel good about yourself ((laughing)) if you can sleep at night, then it's okay that people spend a lot of money. But, other games that exploit people, yeah sure." (INTB6, male, 30s)

In general, the developers preferred not to be dependent on a small number of big spenders for generating sufficient revenue for their games, but rather strived for a more even distribution of payers. In line with the abovementioned principle of keeping non-payers happy, this seemed to be driven both by economic reasons and moral considerations. For instance, a game designer explained how one strategy to optimize a game's monetization was to only analyze the player data of non-payers, in order to find out how they could be motivated to convert:

> "A lot of my queries around balancing the game are actually ignoring payers, so anyone who spends money gets not reflected in a lot of queries I run, because I don't want to know what it's like to pay, I want to know what it's like *before* you pay it. […] Like, I'm more interested in making sure that, […] as many people who can and want to are paying, and not so much trying to get the most out of people who are paying. So I'm looking at the data sets of people who are playing who have never paid, and I want to know what they care about, like, what would it take to get this person to convert." (INTB4, male, 30s)

Thus, getting their games to cater to non-payers to convert them and to make the distribution more balanced was a general goal for the interviewees. Yet, in cases where players' spending patterns exceeded those of average players, this was seen as a conscious and voluntary decision, which players, according to the interviewees, typically do because they truly like the game and not out of weakness or addiction. For example, the monetization consultant claimed: "Payers are not stupid. So if they don't get value in return, they won't spend" (INTB8, male, 50s). Some developers mentioned the possibility—either hypothetically or from actual experiences—for players who do regret spending money to get a refund. For example, according to the product lead, it is common practice in the industry to issue refunds to players with regrets:

> "it's not like they [i.e., the top spenders] are sitting there with a huge bundle of regret in their bellies, that they spent all this money. There are some players that

> do that, and [name of the company] and every other company will refund them happily." (INTB2, male, 30s)

Moreover, so the interviewees' reasoning, as long as the purchases do not cause any economic harm to the players because they simply have ample financial means, there is no problem. The monetization consultant again argued:

> "If you have a successful game with millions of players, you have all sorts of human beings in your game. Poor people, medium people, rich people, females, males, you know, just everyone. Meaning that, if someone pays for the game, […] if you pay fifty euros to the game, it might be a lot of money. […] but there are people out there who don't care to spend fifty euros. There are people out there who don't care to spend fifty euros a day. They don't care, because money is not an issue for them. And […] because you're actually spending in the game, because you're having fun, the level of money is vastly different, people are spending. Usually half of your revenues are coming from ten percent of your payers." (INTB8, male, 50s)

In a similar vein, the small studio CEO had "no problem with people being stinky rich and paying lots of money for an entertainment service we provide" (INTB5, female, 40s). But simultaneously she deemed it a "big question" of: "Can this person really afford [it] or is it a poor bastard who is addicted to gambling and gaming?" She continued:

> "I think it's definitely something you should at least once think about, or making it conscious, that there are people out there [who] could be spending more money than they have. But this is something you have with nearly every good in the world ((laughing)) […] I think […] what *is* important is that you are aware of what you are doing, why you are doing it and if you think it's okay." (INTB5, female, 40s)

She furthermore criticized how, according to her, the media focuses on the small group with problems and thereby "jumps on […] how immoral it is when you have people who cannot really afford it" (INTB5, female, 40s). This critique resonates with Paul's (2020) observation that news stories often anecdotally portray problematic spenders and thereby fuel the moral panic around free-to-play games. Another interviewee, the studio game design director, leveraged an almost Robin Hood-like logic, arguing the rich players facilitate for less wealthy players to enjoy the game, as well:

> "I can see why people do those complaints about the small percentages of the overall users paying. But, I don't know, I don't see a problem with that per se, because I guess that five percent; there's 95% of players that are having a good time, I hope." (INTB7, male, 30s)

Thus, in general, developers considered players spending large amounts of money in their games unproblematic, as they believed most of them could afford it, and developers would be willing to reimburse players in case of complaints. Yet, to counter accusations of exploitative design patterns coming from discourses outside free-to-play development—with which the interviewees were all too familiar—and to talk about top spenders in a more neutral way, developers used specific terms, which I will address in the next sections.

6.7.1 VIPs and special clubs

Despite the efforts to spread the distribution of payments more evenly amongst the players, most interviewees acknowledged the high value of top spenders for their games. Thanks to the data driven nature of free-to-play game development (see chapter 4), it was relatively easy to find out how much these players had spent in a certain timeframe and for what items. Some developers rather self-consciously admitted there had been some instances of players with unusual spending behavior in their games, which made them curious about these players' motivations. For instance, a head of games of a small studio jokingly answered to the question what he thinks about the small minority of players that spend a lot in his games: "that they are crazy" (INTB3, male, 30s). Similarly, the small studio CEO explained how they spotted a player during a launch of an early, testing version of the game:

> "In the first thousand players we got on the game we had one person who was spending like crazy in our app, a couple hundreds of euros. […] It was, 'Wow, why is the person doing this?' This is a technical launch, the balancing changes, every now and then the whole game changes […] and we were just like, 'Oh, how does the refunding system work' ((laughing))." (INTB5, female, 40s)

In some games, players that spend a lot get a special treatment, also to encourage them to spend even more. The head of games explained it with an argument comparable to the abovementioned Robin Hood logic:

> "If they love to spend money and they have enough it's totally cool, and […] we try to give them, more for their money. So cooler things, cooler items, to really give something back to them. Because it's a win-win situation because when we get enough money, we could make better games, and so it's good for all." (INTB3, male, 30s)

Some interviewees called such players VIPs (as an alternative for whales) and some games even had official VIP statuses and programs. For example, in the quote from the product lead above, he explained how the top players gather in special clubs, where they can talk about the game but also about their "real lives" (INTB2, male, 30s). Likewise, a producer explains how at her former, bigger employer she was not directly involved in communicating with VIPs, but her colleagues of community management[102] were concerned with it:

> "At [name of former company] they have like, a community management department of thirty people or something maybe more. So I don't know how they're treating them exactly, but normally you try to make like, special clubs and stuff for people that play a lot, and like, special offers, maybe gifting." (INTB9, female, 30s)

Similarly, the studio game director answered to the question of whether he has ever reached out to certain players:

> "Not personally, but in the company, yes we have reached out. Not to the big spenders alone but also to our most engaged players, people that play the game regularly, the fans, people that send us letters, and that kind of stuff. We actively engage with those guys, ask them what they think of our games, […] what do they like to see in our game, what do they don't like, we ask them for feedback." (INTB7, male, 30s)

So, developers appreciated the players who purchased a lot and tried to cater to them in various ways, in order to keep them in the game.

6.7.2 Hobbies

When justifying big expenditures in free-to-play games, several interviewees used a specific comparison: they framed their games as (expensive) hobbies. Using the more positively-connotated term *hobby* allowed them to move away from links to gambling and addiction. As such, developers argued that activities such as golf or sailing can be very cost-intensive as well, while nobody would question the morals of such activities or call them addictive. For instance, a producer referred to expensive golf equipment when being asked about players spending large amounts of money in his game:

> "If you ask most people, they would say 'yeah, that's really stupid.' And then they would be like, 'well it's because people are addicted to the game' or whatever. But

[102] See chapter 5 for an explanation of the role of community manager.

> I mean, some people *like* to spend money, I mean it's the same way as people spending like, how many thousand dollars on golf clubs, and spend playing golf. And I think there's some kind of stigma, it being a game, then people aren't supposed to spend money on it because it's for kids, but I think there's a lot of players who don't see it like that, who really get invested in games. And I think it's interesting to have this investment in games." (INTB6, male, 30s)

Likewise, the product lead explained how framing his games as a hobby even helps him designing games:

> "I used to skateboard, when I was a kid […] I've been spending thousands of dollars on getting the new equipment, signing up for leagues […] and if you think about it in that context, that these people see games as hobbies, that also changes the design of the game. But they see this as a social club, this big hobby, right? That's why I think things like [name of the game], they're building adventure clubs, which is all about, all the top players coming together, talking strategy about the game, talking their real lives, […] treating it more like a hobby, social club, rather than treating it as, like, an addiction, right? This isn't a slot machine that they're paying into and they're paying thousands of dollars a year. When you get away from that, then I think you design the games better." (INTB2, male, 30s)

This framing of games as hobbies can also be found in several industry blogposts defending free-to-play games (e.g., Griffiths, 2016; Koster, 2012; Sinclair, 2014) and as such has become a common reasoning within the free-to-play sector. This supports Weststar's (2015) findings that game developers form an occupational community (OC), as one of an OC's defining elements is that members "take each other as their primary point of comparison when engaged in self-reflection", which "is reinforced when the OC is marginalized" (p. 1241). Since free-to-play developers are aware of the criticism coming from both other sub-sectors of the games industry and society—for example voiced by the CEO above who mentions the media "jumping on a small group with problematic spending"—the marginalization has led to shared reasonings that game developers leverage to defend themselves against this criticism.

Moreover, the hobby and VIP rhetorics are an interesting aspect of the game sector's "industrial reflexivity" (Caldwell, 2008), which often addresses controversial issues by "fram[ing] the industry and the content it produces in a way that is beneficial to its various internal stakeholders" (Švelch, 2020, p. 19, referring to Caldwell, 2008). Such shared logics are part of the game sector's "para-industry", a "cultural-industrial interface woven together by socio-professional media communities, through trade narratives, ritualized interactions and conventionalized self-representations" (Caldwell, 2014, p. 721). By arguing that free-to-play

games should be seen as hobbies rather than slot machines, game developers on well-known industry blogs such as Gamasutra[103] and Gamesindustry.biz[104] have helped spread and consolidate this para-industrial narrative, which some of the developers in the current study internalized and echoed in the interviews.

Focusing on film production, John Caldwell (2008) identified what he calls "'indigenous' interpretive frameworks of local production cultures", the studying of which "provides specific insights about how individual filmmakers make aesthetic decisions" (pp. 30-31). The product lead's usage of the hobby comparison and how it helped him designing games, shows how the logic also affects design decisions. At the same time, Caldwell (2008) warns production scholars for depending entirely on such "local categories and aesthetic paradigms of producers" (p. 31) as he regards this as naïve and possibly problematic, considering the possible agendas behind such theorizing. For instance, an element the hobby comparison leaves out, which makes it rather tricky, is the fact that in free-to-play games all money spent in the game benefits one publisher or developer, whereas in the case of other hobbies, such as sports, there are most likely multiple (economically unrelated) providers of, for instance, equipment or practice spaces. Thus, also in case of this shared narrative within the free-to-play realm, it is good to critically assess such justification logics.

To summarize, with reasonings such as "games should be hobbies", "our top players are treated as VIPs" and "we design our games for non-payers as well" game professionals engage in indigenous theorizing. In the case of free-to-play development, however, it does not only concern decisions on a merely aesthetic level, but it also affects the perceived morals of such decisions. Developers' shared terminology and deliberate reasonings help them cope with the tension between acknowledging the value of generous players on the one hand, while opposing the image that free-to-play games commercially depend on the exploitation of such players on the other hand. Here, again, monetary as well as moral motivations are at work to prevent (perceived) exploitation and to encourage players to both *keep* and *start* spending money. Overall, this again points at the embeddedness of game developers' work in society more broadly, and as such, at the moral economy of cultural work.

[103] For instance, Griffiths, 2016: "Free-to-Play Isn't a Special Case in Ethics." (As mentioned earlier, in 2021 Gamasutra changed its name to Game Developer).
[104] For instance, Sinclair, 2014: "Free-to-play whales more rational than assumed."

6.8 “Not an interesting job”: Norms toward free-to-play game development

So far, this chapter has focused on developers’ norms and values toward free-to-play games and their alleged effects on players. As mentioned previously, there is also a third level toward which game professionals can hold norms: the development processes of free-to-play games. As shown in the previous chapters, the profound integration of monetization into free-to-play games also affects the development processes and requires specialized skills, for instance due to the significance of integrating monetization into game design. Yet, developers’ views on what the freemium model means for making games were generally less pronounced, meaning they had more explicit views vis-à-vis free-to-play games as cultural products and how they affect players than toward the implications on their work practices. Still, for some developers such norms did play a role in their judgement of the free-to-play monetization model.

For example, some interviewees regarded developing free-to-play games less interesting than developing games with other monetization models, as the data-driven nature and technical constraints of the development process would make it less creative. For instance, one indie game designer indicated that the lack of innovation he observes in free-to-play games prevents him from designing them himself:

> “I try to stay away from free-to-play games or from very commercially focused games, because it's not interesting for me as a game designer because you know the formula, that's just more about reverse engineering other games and doing the same things [as] someone else. That's not really interesting for me, so I try of course to find projects that in *some* way try to do something good, or try to do something better.” (INTA2, male, 30s)

As such, this reasoning corresponds to Hesmondhalgh and Baker’s (2011) previously described notion of bad work concerning the process dimension, in the sense that free-to-play development would cause boredom. Similarly, a programmer explained how he does not like free-to-play game development especially because it is so data-driven:

> “I feel uncomfortable because it's a lot of psychology that goes into tricking people to play the game, but I think that's a problem with the social mobile industry […] The game centers around retention loops and monetization loops and is primarily about that and not about letting the player have a good time. […] I guess it's not much about creativity but it's boiled down to a science. With user tests and eye tracking, how people react to certain, not even gameplay elements but mechanics, and if these mechanics release dopamine in the neurotransmitters.” (INTA11, male, 20s)

Another game designer explained how he does not like working on free-to-play games, even though he does so himself in a large mobile and browser games studio, and is not against the monetization model per se:

> "In the free-to-play market monetization ties so heavily to design that a lot of your design decisions end up really, really directed by the monetization. And to me that's a bit of a stumbling stone, like, I don't really like designing in that way [...] Don't get me wrong, I'm not saying that the free-to-play model is a bad model for games, I don't think it is, I think it's actually quite good for players. [...] But as far as how it influences design it's not my favorite, I would prefer not to have to think about money when I'm trying to create something that's fun." (INTA15, male, 30s)

However, not all interviewees shared this negative opinion toward creating free-to-play games. For another game designer, the interesting challenge precisely lay in the fact that commercial success and game design are so closely connected in the free-to-play realm. He enthused over his job at a mobile free-to-play game studio as compared to AAA development with its large teams and specialized roles:

> "So this is a very good thing that [name of the studio] does, because it allows us […] to always bear in mind that, 'hey, this is a commercial game, we're not just making an indie game to express our feelings. Let's make sure that players are going to spend some money'. [...] My BPU [Business Performance Unit] manager was usually very happy with my proposals and ideas, and I make sure I involve them, and I speak the same language, and that's part of being a designer at [name of the studio]. It's very important to have this mindset, which would be very different from—as I said, designer, not just from an indie company but even like an AAA firm, in which [it] is all about releasing the game at the end, and it's much more fragmented. Because there's so many more game designers and there could be hundreds of developers and maybe thousands of game designers [...] at AAA companies, or console, or PC [...] for instance, if my role as game designer is just like combat design [I would say] 'Pffr, monetization, who cares about it? Now I want to make sure that the sword feels good' [...] and so a game designer at [name of the studio] is specifically quite involved in business usually." (INTB1, male, 20s)

So even though all these interviewees highly esteemed the value of *development as a challenge* (Kultima & Sandovar, 2016), and ideally worked on projects that were interesting to them, they interpreted free-to-play work practices in different ways: The indie designer (INTA2) and programmer (INTA11) tried to steer clear of free-to-play development as they considered it less creative; the free-to-play designer (INTA15) shared this view, but nevertheless worked for a studio that creates free-to-play games, whereas the game designer

(INTB1) praised the direct relevance his work has to the product's commercial viability. These varying attitudes illustrate how Banks' (2017) distinction between emulative competition and market competition is far from black and white. Banks considers "achieving standards of excellence and internal goods as paramount" (p. 46) as a feature of emulative competition, but the lines blur when the integration of "external goods", that is, commercial success, with the actual core of the product, in this case game design, is considered a standard of excellence in itself, and achieving this integration is seen as an interesting creative challenge.

6.9 Conflicting views on monetization

In the previous chapter, I have addressed possible tensions between designing the gameplay and monetization, which according to the interviewees can exacerbate when these tasks are executed by different people in the team (e.g., by a game designer and a separate monetization designer). In this section, I will elaborate on possible *moral* conflicts between game developers concerning the implementation of microtransactions, regardless of their roles in the team.[105]

In the 2017 interviews, on the direct question of whether there had occurred any conflicts between game professionals with different views on monetization, two interviewees signaled that this was a sensitive topic, on which they only elaborated because anonymity had been granted (INTB1, INTB5). For instance, the small studio CEO (INTB5) recalled how one of her employees had left the company due to conflicting views:

> "We had a situation that we had someone in the team who was completely opposed to free-to-play models. And his secret agenda was turning us into a premium product. […]
>
> Q: And what happened to this person?
>
> A: We went different ways. […] Not only because of that, but I think this was a factor […] and you're not going to quote me on that, that's good, otherwise I wouldn't tell this. It was pretty good, because this person brought a very unique view into the office, which was cool and the game profited a lot from that, but I think the most important part was that the games we're doing, even if we don't have a publisher, we are not indie enough. Not artsy enough." (INTB5, female, 40s)

[105] This topic was again directly addressed in the 2017 interview study, but it also came up in some of the 2015 interviews. In fact, also some of the eight indie developers among these interviewees who typically did not work on free-to-play games had experienced frictions about the monetization model with publishers or with peers at industry events.

After the incident, the interviewee started informing job applicants upfront about the studio's chosen business model and her personal vision on good and bad monetization:

> "This experience led me to the point of telling people in the job interview that you really have to love mobile to work with, and that you have to be okay with free-to-play monetization, and telling what I understand good free-to-play monetization is about. And what mechanics, like, giving out buffs which makes one player so strong, that you pay and you automatically win, is not the way to go, because I think it is stupid and it doesn't help getting a good user base. And getting a good vibe inside the game. So I'm telling, I'm very frank about, 'we're doing mobile, we're doing free-to-play and free-to-play for me is this and that and that and should have this rule-set, so here are the borders of what is okay with free-to-play and what not.'" (INTB5, female, 40s)

Likewise, a researcher at a large studio also mentioned the importance of expectations management when new game designers joined the company, mainly referring to the different way of developing such games as addressed in the previous section:

> "There are lots of game designers coming to us, […] [who] partly haven't worked in the free-to-play gaming industry. Therefore they have more illusions ((laughing)). […] So they want to be really innovative and creative and they have to slow down a bit sometimes ((laughing)) because we need to find some good reasons when we produce a game, to have reasons to think that it would be successful and not just, 'It's totally new and innovative so lots of players will play and pay for it.' […] That's not the way games are developed here and that's sometimes a problem, especially in the design department, I guess." (INTA13, male, 30s)

Other interviewees indicated that conflicts were avoided by making sure everyone is familiar with the games' common monetization mechanisms. For instance, a game designer at a large studio said:

> "I think at [name of the studio], most of the time we don't have conversations about like eh 'Is this ethical or unethical?' Because we just, by default, stick to the core monetization that we have, which is very clean, open, ethical." (INTB1, male, 20s)

However, regarding the finetuning of monetization features, a small studio producer deemed conflicts on monetization a normal, non-problematic part of a free-to-play game developer's job:

> "Q: Do you remember within your team at [name of the studio] that you ever had any conflicts around monetization mechanics?

> A: Yeah ((laughing)) all the time. I mean, people think that we should be more aggressive, less aggressive, simpler loops, more advanced loops. […] this is a really normal discussion I would say. […] I think so far I've probably been on the more aggressive side, in the sense of, like, to try to stop players from progressing too fast and trying to add a little bit more of a grind earlier so that people get into the habit of 'okay, every so often I need to stop and grind.'" (INTB6, male, 30s)

Similarly, the product lead of a large studio described how alleged pay-to-win mechanics were sometimes the subjects of discussions, and how in a particular multi-player game this was solved by making these items accessible for non-paying players as well:

> "It's been a couple of times when we discussed things like pay-to-win, when it's a competitive game people are playing against each other […] that's usually where there'd be big discussions. […] For the most part, [name of the studio] doesn't have many games where it is like that, right? I think the only case would be something like [name of the game], where you can buy boosts, to beat your opponent with, on your weekly leaderboard, but at the end of the day […] it wasn't really that big a deal, and also any player could get those boosts, so it still came down to your skill in a round whether you won or lost." (INTB2, male, 30s)

Thereby, this interviewee drew from the abovementioned shared fairness principle to solve the issue, that is, that free-to-play games should cater to non-paying players as well.

In other cases of internal friction over the fairness of the monetization, some interviewees mentioned a specific way of coming to an agreement: they would "let the players decide" by looking at players' reactions such as user data and reviews. As I elaborated upon in chapter 4, collecting and analyzing player data is an important part of the free-to-play development processes—increasingly so at later stages in the development process—and developers consider it an added value for backing up and evaluating design decisions. The games-as-a-service model, which allows games to continuously be adjusted even after their release (as also discussed in chapter 4), has further enabled this mindset. This means player reviews and reactions on social media are monitored and can lead to design adjustments, also regarding the acceptability of the monetization techniques. For instance, a game designer described a discussion he had with the legal department over the ethics of a monetization feature:

> "I think it was, for me, translatable in a user experience aspect. Because I think, if you do something that's ethically not sound, it translates into bad feedback, players hating your game, backlash. Especially for a big game, because […] even going down like half a star review, it's bad. […] I think that we don't have to go too much in

> depth into that conversation, because luckily, ethics reflect in performance, or at least, let me think so, I hope I'm not wrong." (INTB1, male, 20s)

More concretely, a producer explained how he would conduct a user test to solve diverging views on monetization: "We've done things where we had like, different opinions and then we do a split test, and then we see which one performs better" (INTB6, male, 30s). Somewhat similarly, the head of games of a small studio talked about the controversial implementation of advertisements in their games and how this was solved by a test:

> "Q: Do you ever have discussions, internally or maybe with your external developers, about monetization techniques?
>
> A: Not with our external developers, but in-house. So it was very difficult, for example, to implement ads in the beginning, because we are always family friendly, make […] educational games. When I came up with advertisement, my CEO and the stakeholders said 'hey, they're not good, they will destroy our community, there are a lot of parents who will be annoyed.' But yeah, we implemented them just as a test, and it works very well, it is even common for them. To see ads, in games." (INTB3, male, 30s)

To summarize, conflicts about the more basic questions—the decision on the monetization model (free-to-play or not) and the sorts of monetization techniques used—seemed to occur rather seldom, as this was to be cleared before game professionals start working together in the first place. However, regarding finetuning and implementation of the microtransactions, frictions about the monetization were more common, but not necessarily deemed problematic. Turning to player data and testing was one way to solve such disagreements.

6.9.1 Fading resistance against free-to-play

Some interviewees negated that there were any differing views in their current jobs, but mentioned that they had encountered game professionals, mostly game designers, in the past who were against free-to-play. Being entirely opposed to free-to-play generally seemed to be a problem that was fading away with the growing prevalence of the model and the broader spectrum of common monetization mechanics next to exploitative pay-to-win techniques. Some interviewees indicated they initially had problems with the monetization model themselves. The studio game design director, for example, said that "back then" he was "one of the people that needed convincing", then replied upon being asked what made him change his view:

> "The changes in the platforms, that really helped. There were laws that were passed in the US, that kind of force the games companies to clearly state when the game starts that this game contains in-app-purchases, especially if it's for kids, and that the parents need to be aware of that, and the prevention of using social networks for people or for children under thirteen years old, all of these things definitely help." (INTB7, male, 30s)

In a similar vein, the product lead answered to the question whether there were game designers in his company who had problems with the monetization at some points:

> "Yeah, yeah, that happens. […] Many game designers, they come from traditional game design, or even myself in the beginning, having a lot of ethical problems with designing monetization, etcetera, as I still sometimes do have ethical problems with designing certain mechanics." (INTB2, male, 30s)

Also, some indie developers from the 2015 interview study, who mostly rejected free-to-play, distinguished between various ways of implementing free-to-play by different studios (e.g., INTA2). One business developer at a small indie studio acknowledged "it's getting more and more complicated to draw the line" between free-to-play and the rest of the games industry because of "concepts like DotA 2, which is also free-to-play and it's totally not free to play" (INTA8, male, 30s), referring to the mainly cosmetic monetization techniques in that game.[106]

In fact, for the monetization consultant, resistance of veteran game developers against the free-to-play model even turned out to be a lucrative business in itself:

> "For some clients I'm also doing workshops to change the mindsets of these people [i.e., developers that are against free-to-play]. So there are some developers out there who have done PSN [PlayStation Network] games, console games, PC games, and they are coming to me and they say, 'Listen, we want to make a mobile free-to-play game, but, our team […] has this anti-thing and, you know, they don't like free-to-play, they might not understand it, can you help us?' And I'm also there to actually help changing that mindset. And sometimes it's hard, but it's not as hard as it sounds, because if you dig deep [into] why they don't like free-to-play, you can offer them professional alternatives to compensate. For example, if there's a designer who says, you know, all free-to-play games are pay-to-win, I can offer him alternative mechanics which are not pay-to-win, but are still monetizable in free-to-play. And then suddenly he understands that, and you should also understand that many of these people who don't like free-to-play haven't played good free-to-play games for a long time. Meaning that they might not be on the edge of

[106] See also the three categories of payment structures in games I mentioned in Chapter 2, referring to Paul (2020), who considers games in which only cosmetics are monetized a separate category of free-to-play, which is hardly controversial as it ties in with gamer discourse that favors earning progress with skill over buying it, and spending is mainly done to pay tribute to the developer.

> research, you know, best practices out there and what's working. They just look at the charts and there are some games out there, which are like five, six years old and they still have like old-style things in there. But you know, it's one of the things [with which] I try helping them." (INTB8, male, 50s)

Interestingly, he adds that in his experience, the 'suits' are harder to convince than the 'creatives':

> "It's much harder actually to change the mind of the business people than of the dev [development] team. The dev team is much more open, but the business people are harder to educate that they embrace or understand free-to-play properly." (INTB8, male, 50s)

Thus, differing views and internal conflicts on the free-to-play model seem to diminish with the growing acceptance of the business model, greater variety of monetization mechanisms, and younger game developers—who have known free-to-play for a longer time—entering the work force. These findings again tie in with the moral economy approach, as they show how societal values and work morals overlap. In addition, strategies to avoid internal conflicts include expectations management as done by the CEO (INTB5) and researcher (INTA13), as well as 'mindset workshops' such as the ones the monetization consultant organizes.

6.10 Conclusion

In this chapter I discussed the moral considerations of game developers toward the free-to-play monetization model, following an approach of moral economy of cultural work (Banks, 2017) and mainly looking at the micro-level while accounting for the greater cultural context, as is suggested by media production scholars (Mayer, 2009). This approach assumes that individual norms and values of creative industry professionals are embedded in community norms as well as broader societal morals outside professional contexts. Based on interviews with game developers working at German game studios, the chapter focuses on the way developers differentiate between acceptable and objectionable monetization techniques in free-to-play games, how they try to implement these values into their games, and how they perceive top spenders—which are often deemed a problematic aspect of freemium games. It thereby aims to contribute to filling the gap in empirical research on the conflict between quality and monetization (Chew, 2016) from the perspective of game professionals.

Fairness was mentioned as one of the most important criteria for developers to distinguish between the morals of various monetization mechanisms. Three principles with regard to fairness stood out: 1) offering the player (perceived) value for money, 2) being transparent about monetization techniques and winning chances in the case of random rewards and 3) offering non-payers and payers an equally good playing experience. Interestingly, the first principle of offering a perceived value for money for those who choose to purchase microtransactions is at odds with the third principle of not disadvantaging non-paying players. This was partly solved by suggesting paying for mere cosmetics as a 'good' way of monetizing, as well as giving players the possibility to pay to skip waiting times (and thus also the possibility to wait if they are not willing to spend money) which however turned out to be a grey area when it comes to offering equals chances.

Touching upon principles 1) and 2), developers voiced concerns about the blurring boundaries between monetization techniques and gambling. Many tried to stay away from monetizing on the basis of pure gambling techniques while acknowledging the fine line between maximizing the fun of unpredictability and opaque manipulation. With all three fairness principles, commercial reasons were leveraged alongside moral ones, because developers expect that when players do not perceive the game's monetization as fair, they will more likely leave the game, leading to a smaller player base and potentially less income.

Interviewees' attitudes toward the top spenders in their games were ambivalent, due to the aforementioned conflicting nature of the fairness principles of offering value for money (1) and offering non-payers an equally good player experience (3). That is, on the one hand, game developers wanted to distribute spending amongst as many players as possible to make the monetization more evenly divided and less dependent on a few 'whales'—also to make their games less prone to moral accusations of addiction and exploitation. On the other hand, developers valued their top spenders and wanted to please them in order to encourage further spending, for instance, by offering VIP programs. Comparing free-to-play games to (costly) hobbies was a common way to justify the morality of large expenditures, which illustrates the shared narratives of free-to-play game developers as an occupational community (Weststar, 2015) that engages in industrial reflexivity (Caldwell, 2008).

In order to prevent internal friction about the morals of certain monetization mechanisms, some developers managed expectations in job interviews or, in the case of established studios, pointed at the typical monetization mechanisms in their well-known

games. In case of disagreements, some developers pragmatically solved these by conducting user tests or looking at player reviews. In that sense, the moral judgement was 'outsourced' to the player community, because developers believe that "ethics reflect in performance" (INTB1, male, 20s). This illustrates again the iterative and data-driven nature of game development, especially in the mobile free-to-play sector, where all games are games-as-a-service.

In addition, the projection of player attitudes and possible consequences of players leaving the game, negative reviews, as well as specialized game press coverage generally played an important role for game developers. Christopher Ball and Joseph Fordham (2018) also observed that there is an increasing interaction between game developers or publishers and players with regard to monetization, even with its own "language" that is "shared between manipulator and manipulated" (p. 13). This illustrates developers' awareness of the controversial status of particular monetization mechanisms. Especially the controversies surrounding free-to-play in its early years due to the profound integration of monetization and game design and the later discussions around, for instance, loot boxes in mainstream media, seem to have further sensitized game developers working in this particular area of game development. In other words, when working in free-to-play games, having thought about morality as well as having a ready answer for potential moral accusations is a must. In Caldwell's (2014) words, "media workers, not just audiences negotiate their place within culture as part of professional media production" (p. 734). Free-to-play developers, in particular, "are expected to pay into dominant impulses of games, making what we expect and consistently remaking what we will want the next time" (Paul, 2020, p. 186). The moral economy concept has, thus, proven a very accurate way to describe the processes at work in the free-to-play realm. This means, in case values of players and developers diverge, these values will be subject to change in a "process of reflective equilibrium" (Booth, 1994, p. 662). As such, "all economies, including the near-to-pervasive-market economies, are moral economies, embedded in the (ethical) framework of their communities." (p. 662).

Yet, the necessity in free-to-play game development to equip oneself against potential accusations seems to add an extra layer to the moral considerations that are at play for workers in other sectors of the media industries. According to Hesmondhalgh and Baker (2011), the product aspect (as juxtaposed to the process aspect) of 'good work', concerns "products that contribute to the common good", with its counterpart in bad work being

"products that diminish the well-being of others in society—or even harm them" (p. 36). The latter would include thinking about concerns of moral threats, such as the ones typically voiced in the consolidation years of audiovisual media or specific genres, that is, "moral panics" (Springhall, 1998), which include claims of media leading to, for instance, inactive lifestyles or aggressive behavior. But on top of that, free-to-play games developers also have to position themselves toward issues such as addiction, monetary exploitation, and opaque chance-based mechanics—next to the values embedded in the monetization model in its entirety, in which a small part of paying players finances the game development for all players. Therefore, game developers' reasonings also borrow from justifications found in gambling or narcotics, as they address concepts such as fairness and transparency and appeal to users' own responsibility to moderate their spendings.

A caveat to the findings presented in this chapter concerns the diminishing resistance against the free-to-play model in recent years, as the interviews were conducted in 2015 respectively 2017. As even the most recent study of 2017 is four years ago at the time of writing, which is a rather long period in the dynamic games industry, viewpoints might have changed in the meantime. A trend that was observed by an indie developer as early as 2015 (INTA8) and discussed in chapter 2, is that free-to-play and other monetization models are more and more merging in the current games market. That is, AAA games with an upfront purchase for game consoles and PC also increasingly contain microtransactions—a phenomenon that has led to a revival of players' discomfort with in-game purchases (Švelch, 2017). Yet, although viewpoints might have changed, the findings presented here should not be dismissed too easily. Further studies can, for instance, build upon these findings to see possible parallels in the development of moral justification logics by industry professionals vis-à-vis the development of the industry itself. In the Discussion, I will further reflect on this.

7
Discussion

In the previous chapters, I have addressed how monetization relates to free-to-play game production from multiple perspectives. Whereas chapter 4 was concerned with the various steps and activities in the free-to-play development process, and how the integration of monetization mechanisms into the overall game experience intersects with this process, chapter 5 focused on professional profiles and roles and how the traditional game development disciplines shift due to the free-to-play model. Chapter 6 explored how freemium game developers think about moral matters when connecting game design and monetization. By unpacking the production of free-to-play mobile games using these various lenses and concepts, a comprehensive image of the practices of working in this realm emerges. In short, I have shown that the revenue model significantly affects the production of free-to-play games, and that free-to-play game development oscillates between traditional game development and freemium software services. In this chapter, I will interpret these findings in light of the academic embedding and reflect on the limitations of this study.

To that end, I will firstly look at how the concept of *production logics*—especially the *platform logic* as described by Aphra Kerr (2017)—relates to the empirical findings, that is, to what extent the practices of free-to-play game development can be understood through the macro-context of the platform logic. I will show that, even though the production logic's characteristics set the stage for my analysis of free-to-play development, it does not suffice to grasp it in all its facets. This, in turn, will be connected to game developers' *circumscribed agency* in the free-to-play realm. I will argue that the integration of microtransactions and game design in the development process as well as the norms, conventions, and best practices that emerged around this, leave relatively little autonomy for individual game developers. In the final section, I will reflect on the limitations of this study.

7.1 Free-to-play and the platform production logic

How does my research on the micro-level of free-to-play game development relate to the concept of production logics in general and the platform logic in particular? That is, how can the lived experiences and day-to-day practices of free-to-play developers be connected to the macro-forces constituted by the "relatively stable set of institutional forms and relationships

created by the commodification and industrialization of culture" (Kerr, 2017, p. 66) in the emerging platform logic? In order to answer these questions, let me recapitulate the main characteristics of the platform logic: According to Kerr (2017), the logic can be summarized as "the development of a free service that is reliant on the continuous, dynamic and almost real-time flow of data between users, intermediaries, content creators, and other parties to support both indirect and direct forms of monetization and customization" (pp. 69-70). A shift to actors from outside the games industry further characterizes this production logic, and as such, the "'central broker' in this new production logic is not the publisher or developer of the content, it is the intermediary distributor or platform owner" (p. 70). Furthermore, the platform logic encompasses a wide range of content producers, some of which are non-compensated, for instance, because they are amateur developers.

As shown throughout this thesis, the app stores as the main distribution platforms indeed affect the production practices, in the sense that risk-reducing strategies are meant to enhance chances the game will be picked up by a wide audience and as such, that it will be noticed among a myriad of other apps. Moreover, the metrics-driven character of free-to-play game development and the production culture that developed around it—with its sophisticated terminology and formulas around the *key performance indicators* like retention and conversion rate—could only come into being because the app stores facilitate metrics in the first place. The importance of data analysis skills for game professionals working with microtransactions further illustrates this. It can be said, then, that one of the ways in which free-to-play development processes bear resemblance to more general freemium software development processes is in their dependence on the (digital) intermediaries and the contingency created by the way these platforms operate (Nieborg & Poell, 2018).

Yet, when comparing the characteristics of the platform logic as described by Kerr (2017) to the findings, there are also some problematic aspects in subsuming some of these very diverse characteristics of the platform production logic under one category. For instance, even though amateur game developers might publish a free mobile game in an app store as a hobby project, which means the app store serves as the main intermediary and central broker, this type of development likely has very little in common with free-to-play development as I have unpacked it in the previous chapters. That is, considering that the microtransactions are such a fundamental part of the production process, it seems hardly accurate to lump amateur mobile game development together with free-to-play game development.

Related to this, seeing direct revenues generated via microtransactions and indirect revenues (for example by displaying advertisements in-between playing sequences) as two sides of the same coin in the production logic, does not do justice to the intertwinement of microtransactions into a game's gameplay, and disregards the distinct nature of free-to-play development. Indirect revenues generated by advertisements and direct ones by microtransactions might, at first glance, belong to one category: They both aim at maximizing the number of players, who should stay in the game as long as possible, thereby increasing the chances that they will generate some kind of profit (either through clicking on the advertisement or converting players into payers through in-app purchases). However, as I have shown throughout this thesis, at the level of game development, the two are different ball games, because the mere displaying of ads does not interfere with the core game mechanics, and thus does not need to be integrated from the start to the same extent. By staying out of the 'core game loop', advertisements—even though they might annoy players and break the game flow—do not trigger fundamental questions of what are good games, for instance, about what it means when the level playing field is interrupted by in-game purchases and players can buy their way to the top.

This part is thus underrepresented in the description of the platform logic. For instance, the "monetization designer" or "monetization expert" lacks in the list of creative professionals as listed by Kerr (2017) (see table 4 on page 45 in chapter 3). In other words, the macro-perspective of production logics overlooks some important aspects induced by the textual properties of free-to-play games, which are however very present in the lived experiences of this type of production. Primarily looking at the central brokers or data-driven practices, as such, does not do justice to what it means to work in this sub-sector. The examination in this thesis of the "local sites" and "production culture" (see Banks et al., 2016, p. *x*) of game production has revealed significant characteristics that a macro-level view would have missed.

7.2 Circumscribed agency in free-to-play game development

In order to understand what happens precisely at this micro-level, we should then take a closer look at the characteristics of free-to-play game developers' *circumscribed agency*. The notion of circumscribed agency assumes that professionals working in the media industries have "some degree of autonomy, even though their autonomy is delimited by a range of

forces including the cultures from which they come, the conventions of the media in which they work, and the priorities of their organizations and supervisors" (Havens & Lotz, 2017, p. 11). As becomes clear from the above, this indeed applies to free-to-play game developers, whose agency is confined by the aforementioned macro-forces such as technical platform affordances, as well as by conventions, community norms, and perceptions of fair monetization.

As the concept of circumscribed agency also suggests, creative professionals do have certain leeway within this space. As shown in chapter 4, especially in the early phases of a game or feature, some free-to-play game designers can come up with novel gameplay ideas. Naturally, degrees of agency vary between companies and roles, and individual attitudes toward degrees of autonomy differ: Whereas some developers felt constrained by the extent to which monetization affects design, others deemed it a particularly interesting challenge, especially as compared to being a mere 'cog in the machine' in a large AAA company. However, when coming up with early concepts, designers have to make a compelling case that the concept would have good monetization opportunities. Moreover, they have to accept that the idea might be canceled altogether before going live on a large scale, when the data do not prove it to be profitable. As such, creative autonomy is quite narrow nonetheless. This is, for example, further illustrated by the emphasis in the job postings with monetization-related duties on data analysis skills, market knowledge, as well as educational backgrounds in STEM fields—instead of more creative study lines or experience as a game designer. As such, the circumstances under which free-to-play games are developed lead to a strong limitation of agency. Game designers need to take into account best practices, market examples, perceptions of a fair integration of monetization and design, and moreover, later in the process, the data need to confirm the image that the game will be a financially viable product.

The specific production practices of free-to-play game development have, moreover, led to an organizational culture that Timothy Havens and Amanda Lotz (2017) call "industry lore" (p. 162). This term describes "'common sense' ideas" as well as "perceived 'best practices'" (p. 162) and beliefs about what audiences like or do not like. The previous chapters show that free-to-play games have distinct industry lore indeed, which has partly emerged from the two worlds coming together in free-to-play development as described above. This concerns both development strategies (e.g., "study your competition and do not reinvent the wheel", "test the financial viability in soft launch") and fixed beliefs on what kind of target

groups prefer what kind of gameplay and monetization mechanisms (e.g., "aggressive pay-to-win will backfire", "casual audiences more likely pay for skipping time than for cosmetics"). Even though the data-driven character of free-to-play game development would allow developers to frequently question industry lore (which, according to Havens and Lotz, 2017, is not common in most media industries),[107] the strong orientation toward other successful games in the same segment and the costs of data collection and analysis prevent this. In other words, although some questions regarding fine-tuning may be 'outsourced' to the players, game developers generally steer clear from concepts that are too much at odds with the industry lore.

To summarize, we should approach free-to-play game development as the unique constellation it constitutes. This is not to say that no parallels exist between free-to-play games and freemium revenue models in other sectors. But, in other free software-as-a-service the controversial moral dimension almost completely lacks—which is in contrast so present in free-to-play games due to the still tense relationship between play and commodification. In addition, in games with other revenue models (including the abovementioned free games that monetize exclusively through ads), the connection between game design and monetization is not nearly as distinct.

7.3 Limitations of the study

This study naturally has some limitations, which I will reflect upon in this section. Firstly, by focusing on free-to-play mobile game *development*, other actors in the value chain, such as the app stores, or external service providers such as payment systems or external data companies, have been left out of consideration. This was a conscious decision, but it naturally also implies I could not grasp the entire ecosystem of free-to-play games. I have referred to other actors when relevant, but it would nevertheless be interesting to take a closer look at these companies and learn more about the relationships between these actors. Another noteworthy, related angle I did not cover in this thesis would be to zoom in further to the

[107] Havens and Lotz (2017) also claim that "film producers—as well as video game makers and record producers—are fairly isolated from audience opinion, because the project is complete before audiences are given an opportunity to weigh in" (p. 14). However, as shown in this thesis referring to game design literature, even prior to the rise of data-driven design, game development has always been iterative and based on player feedback collected in playtests. As such, regarding video game makers together with film producers and record producers as being "isolated from audience opinion" does not do justice to the games industry and shows how studying game production merely from a media industry studies perspective does not suffice to understand the specific characteristics of game development processes.

more technical and material side of development processes, for example, on the tools and software used for data analysis and playtesting. Moreover, I have not focused on the financial structures behind the development studios and neither have I accounted for the types of labor constellations (freelance, employed), and how this affects the production culture. These could all have been interesting complementary angles, which were, however, beyond the scope of my research.

I should, of course, also acknowledge the limitations of the current study due to its national character. That is, the interviewees all worked for German game studios (whereas the job postings were collected on German and global platforms). Zooming in on German free-to-play development as one production site has provided a rich image of the lived experiences in this sub-sector (as described above), but it is hard to tell from the data to what extent game developers worldwide have similar work practices and production cultures. On the one hand, the global character of the industry and the app stores through which free-to-play games are published, suggest that overarching similarities exist. The international background of many interviewees (including Canada, Denmark, Jordan, Sweden, and the USA), some of whom worked in various countries or even continents before coming to Germany, indicates this as well. On the other hand, the historical background of free-to-play's rise in Europe and the USA and the specific controversies and discourses around the revenue model in this area suggest that results would differ when looking, for example, at the Asian games sectors.

A further point of reflection concerns the methodology. Many considerations played into the decision of choosing interviews as the main empirical source. Although ethnographic fieldwork such as a simple participation or shadowing would, indeed, have provided a more direct and less biased image, hearing the firsthand experiences of free-to-play game developers in a non-public setting with anonymity granted provided insight and access to contemplations otherwise (for instance, in presentations at industry events) not heard. Even though individual willingness to reflect differed, most interviewees openly spoke about the issues they grappled with. Letting the interviewees speak about their work using their own interpretations and explanations also uncovered the shared reasonings, or "conventionalized self-representations" as part of the game's sectors' "para-industry" (Caldwell, 2014, p. 721, also addressed in chapter 6), which I would most probably have missed with an observation. As such, I have pointed to the ways developers equip themselves against the accusations and sometimes hostile attitudes toward free-to-play games. In addition, by asking about possible

friction between game developers regarding monetization, I could show the "layers of competing agency that go into making media texts" (Caldwell, 2014, p. 737). Thus, as I have shown above, since the macro-perspective of production logics does not account for some vital production aspects prompted by the integration of free-to-play monetization techniques, the mixed methods approach chosen here has provided nuance in understanding how the platform logic operates in day-to-day free-to-play game development.

As addressed at several points throughout the thesis, the interviews have been conducted in 2015 and 2017. This means, in the time that has gone by since then, a lot has happened in the dynamic games industry—not in the last place concerning revenue models. Specific types of monetization, such as loot boxes, were not yet so widespread at the time of the interviews, and have certainly changed the landscape. Season passes (e.g., in *Fortnite*, by Epic Games, 2017), for instance, seem to have developed as an accepted middle way between free-to-play and subscription-based revenue models. In contrast, other combinations of different monetization models, particularly the combination of a premium model with additional microtransactions, have caused new controversies, as players are resistant to buying virtual goods on top of paying an upfront purchase. These newer constellations have been picked up by other scholars (e.g., Nielsen & Grabarczyk, 2019; Perks, 2021), but can certainly be explored further, as I will address in the Conclusion.

This merging of revenue models was partly reflected in the corpus of the job postings that I used next to the interviews in chapter 5, which were collected in 2018 and 2019. The listings with monetization-related duties included jobs both in free-to-play and premium game production.[108] Despite not having free-to-play games as the single focus, the listings nevertheless helped gain an understanding of the type of skills and requirements that come with monetization design, as the presence of in-game purchases requires an optimal integration of game design and monetization in both types of games (i.e., freemium and premium with microtransactions). Moreover, as documents that were produced inside the games industry and that only targeted other (aspiring) game professionals, the job listings offered a pragmatic and unperturbed insight into the sector and as such, were a useful addition to the interviews.

[108] In some cases, it was not apparent from the job description whether it was about free-to-play or premium games, as no information about the particular project was disclosed.

Thus, the fact that the landscape has changed since the time of the data collection, might undermine some of the conclusions I have drawn. For instance, as addressed in chapter 6, resistance against free-to-play seems to fade away, or at least has moved toward differentiating between monetization mechanisms instead of rejecting the revenue model in its entirety. In addition, as mentioned above, new combinations of business models might lead to—or have already led to—new modes of production with their own production culture and "industry lore". Yet, it is very unlikely that microtransactions and the free-to-play model are diminishing any time soon. Especially in the casual mobile segment, players have gotten used to the fact that games can be played, at least initially, for free, and developers will have to find ways to convert them to paying. Moreover, even though the specific characteristics of the production of mobile free-to-play games might shift due to new ways of monetizing, this case study has provided rich insights about the complex interplay between monetary and creative considerations in today's cultural industries. Furthermore, it has shown how notions of play and games and their role in culture partly clash with emerging revenue models in the games industry, but interestingly can also foster them.

To summarize, with regard to the platform logic as described by Kerr (2017), some macro-characteristics serve well to describe the lived experiences of free-to-play game production. For instance, the app stores as central brokers and challenges of visibility in this distribution platform lead to risk-reducing strategies, which in turn reflect in practices such as extensive market research and multiple testings. Other characteristics of free-to-play game production are, however, harder to explain when only looking at the platform logic. For instance, the importance of a harmonious integration of game design and monetization is not directly caused by platforms, but rather by the properties of these games themselves and the conventions of acceptable and rejected design patterns that have emerged around them.

When zooming in on the circumscribed agency of free-to-play developers, it is argued that, even though there is some leeway, the autonomy of free-to-play game developers is limited to a great extent. This is, again, due to the aforementioned macro-forces, but also due to the "industry lore", in which certain strategies and best practices have established—which seem to be hardly questioned.

The research conducted for this thesis has some shortcomings, partly caused by the necessity to demarcate the object of study. Looking beyond developers into the whole

ecosystem of free-to-play development could lead to new insights. Moreover, since the time the interviews were conducted, there have been some significant developments regarding games and business models, some of which are worth further exploring. I will sketch such avenues for further research in the next chapter.

8
Conclusion

By analyzing the ways in which monetization intersects with the production of free-to-play games, this thesis has shown how the revenue model shapes how these games are created. Having rapidly gained prevalence in the mobile games market, free-to-play is a successful yet controversial monetization model, due to concerns about ethical implications as well as the quality of such games. For game developers, creating free-to-play games has implications for their work practices too, as the specific development process and monetization considerations require corresponding mindset and skills. In this thesis, I have unpacked the various ways the free-to-play monetization model affects and materializes in the production of these games. Semi-structured interviews with free-to-play developers and an analysis of job listings with monetization-related tasks constituted the main empirical basis for my research.

In order to better understand the object of study, I have firstly sketched the context in which free-to-play arose as well as the revenue model's main characteristics. Free-to-play games have triggered fierce controversies, especially during their rise in the early 2010s in the USA and Europe. The most controversial kinds of free-to-play games are those that profoundly integrate monetization techniques and game design, also designated monetization through "advantage spending" (Paul, 2020). Typical microtransactions in this category include "boosters", which give a one-time advantage, for instance, by power-ups or extra moves (depending on the genre) or "immediate energy refills" that let a player continue directly instead of having to wait to progress (Alha, 2020).

While game scholars have started to study freemium games from the perspectives of the games themselves (i.e., in the form of textual analyses), the ways they are played, as well as their reception in games industry discourses, less attention has been paid to the production aspect of free-to-play games. By taking exactly this as my focal point, this thesis academically positions itself in the emerging field of *game production studies*. This generally underrepresented subset of game studies is, in a broad sense, concerned with the ways games are created. Game production studies can be considered part of *media industry studies* and, in some cases, orients toward the sub-field of *production studies*, which examines local

production sites and cultures on a micro-level. Following the latter, I have zoomed in on developers' practices and day-to-day routines, and as such, focused on the micro-context in which free-to-play games are made. The underlying concept here is that game developers are assumed to have *circumscribed agency* (Havens & Lotz, 2017), meaning the macro-forces define the boundaries within which game creators enjoy certain autonomy.

But, in order to grasp the connection between the micro-contexts and macro-forces, the findings should be contextualized in light of the larger structures that surround the production practices as well. Distinct constellations of such structures can be described as *production logics*. Aphra Kerr (2017) has identified five such production logics in the games sector, one of which is the emerging *platform logic,* which encompasses free-to-play game development. The platform production logic is, among other things, characterized by the mobile app stores as central distribution platforms, *data-driven* development, and games being offered under a *games-as-a-service* model. In addition, in order to also account for the temporal dimension of free-to-play development, including the typical design phases and activities, I have turned to *(game) design research*. This strand of research has characterized game development as an iterative, cyclic process, in which multiple testing is essential.

As such, I have analyzed free-to-play game production from three distinct perspectives—which together paint a comprehensive picture of how monetization and game design are entangled in freemium game development. With the first lens of design research, I have shown that, as an integral part of game design, the revenue model permeates all phases of development and pushes game design in a 'monetization-friendly' direction from the very start. This means that early game concepts and core mechanics that do not lend themselves to be meaningfully connected to microtransactions are rejected. Incorporating 'proxies' for the monetization in first prototypes and closely monitoring games that target the same market segment serve to ensure optimal integration of game design and in-game purchases. Later on, more fleshed-out game prototypes allow for large player data to be collected and analyzed. At this stage, the game may still be canceled when the metrics predict too little financial viability, and *key performance indicators* (KPIs) play a big part in defining whether the game can be released on a global scale. Connecting these findings to the concept of circumscribed agency shows that game developers' autonomy in the free-to-play space is confined by the various risk-reducing strategies and monetization requirements, which are applied throughout all stages of the development processes.

The second analytical lens has shed light on the people working in free-to-play game development, by looking into the role and expertise of monetization. Instead of assuming roles in creative work as fixed positions, the chapter engaged with roles as being fluidly enacted. I showed that monetization is an essential, new type of expertise needed in free-to-play game production, although not being the role traditionally associated with game development. Monetization expertise encompasses market knowledge, economy or systems design, as well as data analysis skills. Some companies that lack this expertise bring in external experts or consultants to take care of the connection between gameplay and microtransactions (i.e., to fulfill the role of *monetization designer*). In other, mostly smaller studios, the monetization-related tasks are delegated to game designers and producers. The emphasis on data analysis and market knowledge in the job postings points, again, at the limited creative agency for free-to-play game developers.

Finally, I have unpacked free-to-play game developers' moral considerations by looking at how they distinguish between acceptable and objectionable monetization mechanisms. I turned to the concept of the *moral economy of cultural work* (Banks, 2017), which highlights the embeddedness of practitioners' norms and values in broader society as well as community norms. Free-to-play game developers indeed leverage several universal principles and reasonings that guide their work and design decisions. They have found commonly shared solutions for frictions between principles. For example, the aim for an equally good playing experience for paying and non-paying players is partly at odds with offering paying players a value for their spent money. This is solved by the widespread implementation of microtransactions that allow to skip time, meaning everything in the game is achievable without spending, albeit requiring players' extra patience. Likewise, against accusations of exploiting a small fraction of paying players called *whales*, developers leverage the 'hobby' rhetoric, arguing these players regard their games as (expensive) hobbies, for which costly equipment is a justified expenditure. These shared narratives help equip developers against accusations of creating unethical games.

The fact that developers are well aware of the criticism toward free-to-play games and have relative ready-made answers to it, shows that their moral considerations are deeply embedded in the game development community and society more broadly. At the same time, some of the moral considerations of free-to-play developers tie in neatly with the principles

that make freemium business profitable. For example, catering to large numbers of non-paying users increases revenues, as a small fraction of this user-base will turn into payers.

8.1 Free-to-play game production as a unique constellation

Reconciling the findings of these three analyses results in two major takeaways: Firstly, as shown by the conclusions drawn above, the integration of microtransactions into the very core of what games are—that is, their game design—significantly shapes the way these games are created. Since the free-to-play revenue model adds an extra dimension to established practices of game development (such as iterative testing and market research), the understanding of roles and responsibilities pertaining to these roles, as well as notions of acceptable and objectionable game design patterns, the monetization model affects production practices in a more fundamental way than other revenue models.

Secondly, free-to-play game development oscillates between traditional game development and freemium software services. Even though all digital games are software next to audiovisual ludic experiences, free-to-play games' data-driven nature and ways to identify effective monetization mechanisms as well as potential top spenders, bring the pragmatically-oriented world of instrumental freemium software-as-a-service and the world of traditional game development particularly close together. As Kerr (2017) argues, "with the shift to mobile and online in the past decade, the top companies are increasingly companies from outside the cultural industries" (p. 44) and, as such, there is "a growing integration with the Internet industry" (p. 72). This double rootedness manifests in the everyday production practices of free-to-play games. For example, traditional game development's established practice of small-scale qualitative playtesting and prototyping, of which the aim is to find out whether the core mechanic is engaging (and which in free-to-play development contains proxies to 'simulate' the monetization), exists alongside practices common in freemium software development, such as metrics-based user testing, with its mathematical formulas that define whether the average revenue per user exceeds the average cost per acquisition. Similarly, the emerging profile of *economy* or *system* designer points at the coalescence of the role of game designer as the game's architect, who envisions the game experience, and the craft of creating a system in which demand for virtual goods can be created. As such, designers with business experience or expertise (like the interviewed level designer, INTB1) possess particularly useful skills for free-to-play games, as they, for instance, speak the same 'language' as co-workers in

the business department. And even though the general trend of "rationalization" of game design and data-driven practices had already started before the rise of free-to-play games (Tschang, 2007; Whitson, 2012), in freemium game development it is particularly distinct, as the commercial success so fundamentally depends on it; that is, no income will be generated when players do not convert.

The merging of these worlds, in turn, reflects in the free-to-play game developers' moral considerations and favored design patterns. For instance, the general principle in free-to-play games that a game should offer an equally engaging experience to non-paying and paying players seamlessly combines two sets of values: on the one hand, the belief that playing is an activity that should be accessible for everyone and that games should offer a level playing field, and on the other hand, the strategy of freemium revenue models to cast a net as wide as possible to reach a large player-base and catch *whales*. Likewise, the aim for transparency in terms of winning chances or an (alleged) scarcity of items aims at fair play, but simultaneously prevents getting bad reviews that might cause the game to become less visible in the app stores.

Thus, free-to-play game development constitutes a unique constellation within the multifaceted games sector. And although the controversies triggered by free-to-play games have been explored by several academics (e.g., Alha, 2020; Chew, 2016; Paul, 2020; Phillips, 2016; Švelch, 2017), looking at this matter from the developers' perspective has provided new insights, by showing how principles coming from different origins coalesce. Moreover, as these findings reveal, the macro-structures of the platform logic as identified by Kerr (2017), only partly suit to describe the lived experiences of free-to-play production. Even though data-driven technology and the role of the app stores as most important distributors in this production logic undoubtedly affect production practices, it is also the textual qualities of free-to-play games (particularly the entanglement of game design and monetization) and the notions of favored and acceptable monetization mechanisms that shape the production sites of free-to-play game development. All these factors together have led to a distinct "industry lore" in free-to-play game development.

8.2 Directions for further research

As the games industry is ever in flux and new constellations appear on the horizon, the approach used in this thesis can serve to unpack new phenomena as well. In light of recent

developments, I will suggest a few directions for further research in game production studies that could build on my findings. Firstly, the coalescence of different revenue models (as described in the Discussion), and how these play out for game development practices, is an issue worth exploring further. One could, for instance, look at how studios deal with controversies caused by upfront payments combined with microtransactions. In this realm, the *hardcore* players that are willing to pay for a game upfront are generally more vocal than casual mobile free-to-play players, which is an interesting additional factor in this discourse.

Furthermore, the moral dimension of monetization mechanisms remains interesting. For example, the monetization mechanism of paying for cosmetics has raised new questions about ethical monetization design. While this type of monetization is generally praised for not interfering with gameplay and is therefore considered fair, the public display of those who can and those who cannot afford to buy expensive appearances, has problematic aspects as well. For example, in multi-platform *battle royale* game *Fortnite*, which is especially popular among younger audiences, the cosmetics-based monetization allegedly promotes bullying (Hernandez, 2019). In this respect, one could unpack the foreseen as well as unforeseen dynamics between players, and connect this to, for example, the design decision that enable players to "brag" in front of each other (see chapter 6).

With regard to revenue models more generally, another interesting avenue to explore would be the *club production logic*, in which players pay a regular fee to get access to a library of games. This revenue model seems to gain traction in the games sector thanks to improving internet connection speeds. Cloud-based streaming platforms like Google Stadia, Xbox Game Pass Ultimate, and Amazon Luna let players choose from a variety of games and play them directly online. Regarding this topic, the relationships between game development studios, publishers, and distribution platforms again shift, and the question is how this in turn would play out in the ways games are created.

Finally, another issue worth studying from a game production studies perspective is the controversy around NFTs (non-fungible tokens), which, based on blockchain technology, allow digital objects to be traded as unique objects with a verifiable owner. Some large game publishers, like Ubisoft and Electronic Arts, have announced that they will implement NFTs for in-game virtual items into their games (Pippig, 2022). This allows these items to become scarce, which in turn promotes speculation. For example, well-known game designer Peter Molyneux's announced game *Legacy* has yielded 47 million Euros by selling virtual pieces of

land before any material of the game is available (Young, 2021). NFTs question the relationship between play and money, and raise questions about the "productivity" of play and to what extent games should serve as speculation objects. The highly controversial status of NFTs has, once again, put everyone in the games industry on edge.

To summarize, most notable is the combination of revenue models in combining upfront payments with microtransactions in AAA games, and the emergence of 'middle ways' between subscription and free-to-play. In addition, the relationship between games and money is currently again hotly debated in light of NFTs. As I have shown in this thesis, a closer look at how practitioners in the games industry deal with this can reveal new insights into work practices on the intersection of play, technology, and business.

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Appendices

A: Overview of interviewees

Code	Role (short)	Self-reported role and main responsibilities	F2P / Indie	Company size (small: <20 employees)	Gender (f/m)	Age	Interview study of	Used in chapter(s)
INTA1	Designer	All disciplines	Indie	small	m	30s	2015	6
INTA2	Designer	Game design, programming, marketing	Indie	small	m	30s	2015	6
INTA3	Artist	Art Director	Indie	small	f	20s	2015	6
INTA4	Programmer	Programmer & CEO	Indie	small	m	30s	2015	6
INTA5	Artist	2D Artist, project management, marketing	Indie	small	f	20s	2015	6
INTA6	Artist	Art, illustrations, project management, coding	Indie	small	m	30s	2015	6
INTA7	Management	Management, Creative Director: involves design, coding, producing	Indie	small	m	30s	2015	6
INTA8	Management	Business development, marketing, project management, game design	Indie	small	m	30s	2015	6
INTA11	Programmer	Programmer, specialized in prototyping	F2P	large	m	20s	2015	4, 6
INTA12	Programmer	Flash Programmer & Lead	F2P	large	m	20s	2015	4, 6
INTA13	Researcher	Lead of Research Team	F2P	large	m	30s	2015	4, 6
INTA14	Artist	Concept Artist	F2P	large	m	20s	2015	4, 6
INTA15	Designer	Lead Game Designer	F2P	large	m	20s	2015	4, 6
INTA16	Designer	Game design, prototyping, research	F2P	large	m	30s	2015	4, 6
INTA17	Management	Head of Games	F2P	large	m	30s	2015	4, 6
INTA18	Designer	Game Designer in the core design team	F2P	large	f	20s	2015	4, 6
INTA19	Designer	Game Designer (and Game Artist as an indie developer)	F2P (and indie)	large (and independent)	f	20s	2015	4, 6
INTB1	Designer	Level Designer with focus on creating features	F2P	large	m	20s	2017	4, 5, 6
INTB2	Producer	Product Lead	F2P	large	m	30s	2017	4, 5, 6
INTB3	Management	Responsible for all products, monetization, and the strategy	F2P	small	m	30s	2017	4, 5, 6
INTB4	Designer	Lead Game Designer	F2P	large	m	30s	2017	4, 5, 6
INTB5	Management	Founder, CEO, Creative Director & Vision Keeper	F2P	small	f	40s	2017	4, 5, 6
INTB6	Producer	Product Manager	F2P	small	m	30s	2017	4, 5, 6
INTB7	Management	Studio Game Design Director	F2P	large	m	30s	2017	4, 5, 6
INTB8	Consultant	Monetization Consultant	F2P	independent consultant	m	50s	2017	4, 5, 6
INTB9	Producer	Producer	F2P	small	f	30s	2017	4, 5, 6

B: Sample of Job Listings

ID	Job Title	Company	Country	City
1	Monetization Coordinator	Ubisoft Massive Entertainment	Sweden	Malmö
2	Monetization Director	Ubisoft Singapore	Singapore	Singapore
3	Monetization Director	Ubisoft Montreal	Canada	Montreal
4	Monetization Specialist	Ubisoft Montreal	Canada	Montreal
5	Game Data Analyst, Monetization	NetherRealm Studios	USA	Chicago, IL
6	Senior Game Designer	Big Blue Bubble	Canada	London, ON
7	Economy Designer	Niantic	USA	Los Angeles, CA
8	Producer	Activision	USA	Santa Monica, CA
9	Game Analyst	MZ	USA	Palo Alto, CA
10	Senior Game Producer	Big Blue Bubble	Canada	London, ON
11	Summer Intern - Game Product Manager	Electronic Arts EA Sports	USA	Orlando, FL
12	Mobile Product Manager	Bandai Namco Entertainment	USA	*Unknown*
13	Director of Monetization	PlayQ	USA	Santa Monica, CA
14	Systems and Monetization Design Director	Electronic Arts Bioware	USA	Austin, TX
15	FIFA Ultimate Team Live Product Manager	Electronic Arts	Canada	Vancouver, BC
16	Game Product Manager	Electronic Arts EA Sports	USA	Orlando, FL
17	Senior Product Manager	Electronic Arts Industrial Toys	USA	Pasadena, CA
18	Sr. Data Analyst	Electronic Arts EA Sports	USA	Orlando, FL
19	Sr. Game Product Manager	EA (Pogo, Maxis, Fuel)	USA	Redwood City, CA
20	Expert Game Monetization Designer - Merchant	Goodgame Studios	Germany	Hamburg
21	Game Economy Designer	Gameloft	Spain	Barcelona
22	Data Scientist	2K Publishing	USA	Novato, CA
23	Live Operations Designer - Mobile	Cat Daddy	USA	Kirkland, WA
24	Live Operattions Specialist	Cat Daddy	USA	Kirkland, WA
25	Live Ops Manager	2K Publishing	USA	Novato, CA
26	Senior Product Manager	NCSOFT West	USA	San Mateo, CA
27	Monetization Designer	Massive / Tom Clancy's The Division 2	Sweden	Malmö
28	Senior Software Engineer, Monetization	MZ	USA	Palo Alto, CA
29	Technical Designer	Electronic Arts EA Sports	USA	Orlando, FL
30	Senior/Lead Technical Designer	Rockstar	USA	San Diego, CA
31	Live Operations Product Manager	Playstudios	USA	Burlingame, CA
32	Producer	Epic Games	Canada	Montreal
33	Product Manager	Epic Games	USA	Cary, NC
34	Senior Marketing Manager	Epic Games	Japan	Yokohama
35	Senior Monetization Designer	Microsoft	USA	Redmond, WA
36	Product Manager - F2P	505 Games	USA	Calabasas, CA
37	Product Manager	Bossfight Entertainment	USA	Austin, TX

ID	Job Title	Company	Country	City
38	Sr. Game Economist	Activision	USA	Santa Monica, CA
39	Associate Game Designer	MZ	USA	Palo Alto, CA
40	Game Designer - Economy	Bethesda Game Studios	Canada	Montreal
41	Executive Producer, Diablo	Blizzard Entertainment	USA	Irvine, CA
42	Executive Producer, Mobile Games - Unannounced Project	Blizzard	USA	Irvine, CA
43	Brand Manager	Ubisoft	USA	San Francisco, CA
44	Sr. Producer	Cryptic	USA	Northern California
45	Data Analyst	GSN Games	USA	Palo Alto, CA
46	Data Scientist - Game Economy Optimization	Unity Technologies	USA	San Francisco, CA
47	Director, Product	Warner Bros. Entertainment Group	USA	San Francisco, CA
48	Assistant Producer II	Electronic Arts	USA	Orlando, FL
49	Assistant Producer II	Electronic Arts	USA	Orlando, FL
50	Assistant Producer	EA	USA	Orlando, FL
51	Associate Business Analyst Internship	EA	Romania	Bucharest
52	Director, Game Product Management (Austin mobile studio)	EA	USA	Austin, TX
53	Producer	EA / BioWare	USA	Austin, TX
54	Business Analyst, Global Brand Partnerships - Contract	Electronic Arts	USA	Redwood City, CA
55	Competitive Gaming Analyst	Electronic Arts	USA	Redwood City, CA
56	Live Content Designer (FIFA Ultimate Team)	EA	Canada	Vancouver, BC
57	Studio Operations Manager, Global Partnerships	Electronic Arts	USA	Redwood City, CA
58	Intern: Game Design - Madden (Fall 2019)	Electronic Arts EA Sports	USA	Orlando, FL
59	Sr. Game Designer	MZ	USA	Palo Alto, CA
60	Director of Analytics	2K Publishing	USA	Novato, CA
61	Business Development Manager	Nintendo	USA	Redmond, WA
62	Senior Data Scientist	Activision Blizzard	USA	Santa Monica, CA
63	Product Manager, Ad Formats	Activision Blizzard Media	USA	San Francisco, CA
64	Producer	Activision Blizzard	USA	Santa Monica, CA
65	Mobile Design Director	Activision Blizzard	USA	Santa Monica, CA
66	Marketing Coordinator	Epic Games	USA	Cary, NC
67	Product Manager (Casual Mobile Games)	PeopleFun	USA	Richardson, TX
68	Senior Product Manager, Ad Monetization	GSN Games	USA	San Francisco, CA
69	Sr. Producer	WB Interactive Entertainment	USA	Burbank, CA
70	Sr. Publishing Analyst	WB Games	USA	San Francisco, CA

ID	Job Title	Company	Country	City
71	Project Manager	Flying Sheep	Germany	Cologne
72	Head of Live Game Design & Monetization	Gameforge	Germany	Karlsruhe
73	Game Balancer / Economist	Huuuge Games	Germany	Berlin
74	Project Manager	MegaZebra	Germany	Munich
75	Game Systems Designer	Stratosphere Games	Germany	Berlin
76	Engine Programmer	Ubisoft Blue Byte	Germany	Mainz
77	Systems Programmer	Ubisoft Blue Byte	Germany	Mainz
78	Systems and Monetization Designer	Electronic Arts BioWare	USA	Austin, TX
79	F2P Game Designer	Chimera Entertainment GmbH	Germany	München
80	Game Analyst	Tivola	Germany	Hamburg
81	Monetization Designer	MovieStarPlanet	Denmark	Copenhagen
82	Senior Game Designer	Bright Future	Germany	Cologne
83	Senior Game Designer/in Online Spiele	Cipsoft	Germany	Regensburg
84	Product Manager (LiveOps)	Glu Sports	USA	San Mateo, CA
85	Senior Systems Designer	FoxNext	USA	Playa Vista, CA
86	Business Performance Manager MBA Intern	King	Spain	Barcelona
87	Business Performance Manager MBA Intern	King	Germany	Berlin
88	Business Performance Trainee Program	King	Sweden	Stockholm
89	Data Scientist Intern	King	Sweden	Stockholm
90	Product Manager (Ad Experience)	King	Sweden	Stockholm
91	System & Economy Designer (Senior & above)	King	Sweden	Stockholm
92	Sr. Game Designer	Electronic Arts	USA	Orlando, FL
93	Sr. Game Designer	EA Sports	USA	Orlando, FL
94	Game Designer	MZ	USA	Palo Alto, CA
95	Sr. Game Economy Designer	Warner Bros Games	USA	San Francisco, CA
96	Game Designer, Mobile	Cat Daddy	USA	Kirkland, WA
97	Senior Researcher - League of Legends, Monetization Products	Riot Games	USA	Los Angeles, CA
98	Product Management	Scopely	USA	Culver City, CA
99	Senior Game Designer	Jam City	USA	San Francisco, CA
100	Senior Monetization Designer	Certain Affinity	USA	Austin, TX