

# From Social Play to Social Games and Back: The Emergence and Development of Social Network Games

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## Abstract

The social dimensions can take many forms in games and play cultures. The phenomenon of social network games, especially the historical evolution of *Facebook* games, provides an interesting opportunity to explore of the social aspects of game creation and play cultures. The social and cultural frames of social play and networks have become increasingly central areas to explore in game research. Around years 2006-2007, games distributed through social network services became known as ‘social games’, even though their actual characteristics do not necessarily rely primarily on social interaction, or real-time social play, for example. Nevertheless, social play and social network services have had a central role for the design and use of these games, and it is important to understand how they have operated – as games, and as playful elements in particular kind of social media environment. This chapter draws upon a decade of research in the field of casual and social games, and highlights the interrelations between player experiences, game and service design features, as well as industry business models in this area. Finally, the chapter also reflects on the future directions of social game play, and its research.

## Introduction

Games have been studied for well over a century and the academic interest in play stretches back to antiquity. Yet contemporary game studies coalesced as a field around the turn of the millennium. As a field game studies has been organized around a (rather deceptively) singular object of scrutiny, ‘games’. However, as a social construct the category of ‘games’ is a moving target – and there are multiple social and discursive contexts and communities that have a stake in how games and play are defined. Gaming communities, fans, casual gamers, designers, scholars as well as academic fandom (“aca-fans”), different parts of the game industry, hobbyists, legislators, educators, and artists all have diverse yet partially overlapping stakes in this discussion. Questions such as “What is a game?”, “Who is a gamer?”, and “Are games art?” are all part of this discussion on how to understand and properly position games. Obviously the conceptualization of games has direct implications on the characterisation of game studies as a field.

Against this background it is hardly surprising that when a new breed of relatively simple games emerged in 2007,<sup>1</sup> played by people who did not identify as gamers, who at times had limited contact with canonical digital games, and played those games for free in a new context, namely *Facebook*, that these games tended to be dismissed by traditional gamers and game media. Games developed for services such as MySpace and later particularly *Facebook*, which are commonly discussed under the terms *social games* or *social network games*, were at the time only the latest incarnation of *casual games* (see Kuittinen et al., 2007; Kultima, 2015), and were cast in the same lowly regarded category as early mobile phone games and browser-based games.

The term itself, social games, was contested right from the start since arguably game play has always been social and *Facebook* games were not considered particularly social. They did introduce, broadly speaking, a new type of mediated sociability in games by using social network connections as an integrated part of the game mechanics. From the developer perspective, such aims were probably primarily aligned with advertising the games to new players, while social interaction can in many services also unintentionally lead into formation of friendships or online communities (Malinen, 2016).

In this chapter we document the rise of *Facebook* social games, explore the sociability they fostered, and discuss how social games are positioned in the wide field of games – and what they reveal and reflect about games and game studies. We start with a historical overview into the origins and development of social games, and then moves to discuss how various examples of social games, with social, monetization, and distribution related key features that have shaped these games and their operation. The advantages and downsides of such features are then discussed in more detail, making use of a series of studies that have included both game developer as well as social game player perspectives, while also analysing the games themselves in detail. The conclusions of this chapter will reflect upon the impact of social games for the direction game business and game culture is taking, including the free-to-play games developed for mobile devices and “app ecosystems”. Social games are contextualized within a wider move of gaming to the mainstream of society – and the ludification of culture.

It should be mentioned that this chapter is grounded in multiple overlapping frames of research, broadly situated within the multidisciplinary field of games and player studies. The authors have carried out studies in this area in the University of Tampere Game Research Lab, an interdisciplinary research unit, since the turn of the millennium, and much of this chapter benefits from these years of research, situated at the interstices of multiple disciplines and scholarly orientations. Multi- and interdisciplinary research work has genuine transformative and innovative potential, but it also carries built-in, fruitful tension: in this case, there was a push towards (humanities-based) theory formation about the ontology of games and play and the research was from the start both held (in social-sciences style) societally and ethically accountable, as well as be practical and create contributions with application value

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<sup>1</sup> 2007 was the year when *Facebook* gave third party developers access to create and distribute games in the service, by opening up the *Facebook* API (Application Programming Interface). Social games grew to utilise this opportunity.

(in the spirit of much design research and experimental Human-Computer Interaction [HCI] traditions). When funding for emerging game and play forms has been coming from technology or innovation funds, the work in this area has also been required to closely link with the industry interests. Such divergent goals are possible to fit together when game and player research is carried out under a dual strategy: for example, many research projects in this area have been carried out by using at first design research strategies and methods, then moving on to observe, interview and survey players when the game form has reached wider popularity. The analytical and theoretical dimensions of these design oriented and empirical studies have simultaneously been aimed to identify and produce interpretations about what these emerging phenomena in the field of gaming and game design are, and what they mean.

## Short History of Social Play and Social Games

Play is considered to be one of primal activities, and it is not only restricted to humans. According to the scholars of animal play, most vertebrates engage in at least some play activities (Burghardt, 2005). Commonly play is divided into three categories, play with the body, play with objects, and play with others, i.e. social play (Burghardt, 2005, 81-110; Bekoff & Byers, 1998). Of the three, social play is the most complex, and likely to have emerged latest in evolution. Correspondingly, in human children social play develops after locomotor play and object play, but before the understanding of rule-based play fully develops. As play is so widespread in the animal kingdom and there is a cost to playing (playtime is away from gathering food, it exposes one to harm and predators), according to evolutionary theories it must have a benefit. However, although numerous theories about the function and purpose of play were put forward during the 20th century, all remain contested in light of evidence (Burghardt, 2005).

In research, play has been perceived as instrumental for developing skills, social play includes learning by imitation and adaptation into complex, social environments (e.g. Piaget, 1951). However, rather early on, the more diverse perspectives to play have also been articulated. Notable is, for example, Brian Sutton-Smith's critique of Piaget (1966), where he maintains that play is not only a tool for adaptive learning, otherwise increasing intelligence would lessen the popularity of play, which appears clearly to be untrue. Play, and also social play, is thus more ambiguous phenomenon than its straightforward reduction to evolutionary benefits would suggest. (Sutton-Smith, 1966; Pellegrini, Dupuis & Smith, 2007.)

While the historical perspective in studies of social digital games is typically rather short, it is important to emphasise that social play as an underlying phenomenon predates not only games, but humans altogether. All playing of games is enactment of social play, in some sense (Stenros et al., 2011a). Solitary gameplay is obviously possible, but it is more of an exception (for a contrary view of digital play, see Myers, 2010). Single-player digital games are mostly characterized by being founded on solitary play, more precisely play with an object, although obviously there are elements of play with the body and it is important to note that the player is not an abstraction but an embodied being. Also, in digital game play sociability is a key element in many of the so-called single player games, most obviously through players competing with others through high scores, but also via the multiple roles that games have in building social capital (Bourdieu, 1986; Consalvo, 2007). It would be an exaggeration to characterize digital

play as mostly solitary activity or one dominated by single-player gaming. From the very beginning digital games have had a strong social component.

The first video game patent, titled “Cathode Ray-Tube Amusement Device” acknowledged the significance of spectators and suggested game design features accordingly (Goldsmith & Mann, 1948). Two years after a tic-tac-toe game *Bertie the Brain* (1950) was demonstrated for the audience during the 1950 Canadian National Exhibition and can be considered as the first arcade game as exhibition attendees lined up to play against artificial intelligence. Early experimental electronic games, such as *Tennis for Two* (1958) and *SpaceWar!* (1962), were actually often two-player games. *Pong* (1972), arguably the beginning of commercially successful arcade and home console games, could be played either by two people, or against the computer. However, the classic coin-operated arcade video game and early computer games moved the technical emphasis towards single-player games. Yet they were often played in a social setting in arcades and at homes, with an audience and with competing with scores, later aided by incorporated score boards. For example, Ian Bogost (2004) observes that the introduction of a high score list<sup>2</sup> in arcade game *Asteroids* (1979) “transformed the game from a solitary challenge – man against rock – to a social challenge – man against man”. Furthermore, even if a game was implemented as a single-player game it could be played by alternating players (known as *hot seat gaming*). Indeed, early advertisements for digital games and consoles often feature multiple people engaged with the fun activity (Young, 2007).

The sociability around a game is the building block of various gaming cultures. Having knowledge about games, achieved either through playing or other sources has lent the players status, and has been characterized as *gaming capital* (Consalvo, 2007; Malaby, 2006; Walsh and Apperley, 2008). Earlier such knowledge and expertise was expressed through anecdotes and expert play, later it has been rendered more visible through walkthroughs and “Let’s Play” videos shared online. The expertise gained in game play has also become more openly shared and even gamified with the help of “achievements” that many online game services provide for excellence in play. Although media specializing in digital games targeting players has existed at least since the early 1980s, the spread of the internet has taken the discourse on a different level. Not only was there access to discussions on varied topics which enabled gaming communities to gather around specific, even obscure interest, but these subcultures were rendered visible.

Multi-player games have existed alongside single-player games throughout the history of digital games, from two-player games to games set in multi-user environments. Even so, around the turn of the millennium it was possible to perceive digital game play as mainly a solitary experience. Zagal et al. (2000) sum this sentiment up: “Whereas the vast majority of games played all over the world are collective in nature (that is, they involve the participation of more than one person), practically all electronic games are individual.” At the time the stereotypical image of the gamer in the media was also often an isolated, anti-social male.

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<sup>2</sup> The first arcade game to feature high-score list was *Star Fire* (1979) and the feature was copied to *Asteroids* according to the game designer Ed Logg (Retro Gamer, 2009).

As internet connections started to become more common and faster in the Western world, multiplayer games were moving from LAN parties to the internet. The popularity and visibility of massively multiplayer online (MMO) games and other online worlds was rising fast in the early years of the new millennium. Although it is certainly possible to play these games *alone together* (Ducheneaut et al., 2006), just using the other players as a backdrop, the social aspect of play was undeniable and integral to game play. Midway through the first decade of the new century, numerous party games for consoles started to pick up traction. In *SingStar* (2004), *Guitar Hero* (2005), and *Dance Dance Revolution* (released for PlayStation 2 in US and Europe in 2007) the performativity and socializing played important roles. When *Facebook* games emerged in 2007, 'social' was a hype word in games, and 'social media' was starting to be all the rage in digital culture. Not surprisingly, these games were dubbed *social games* by the game industry, which was a shorter version for *social network games* that emphasized the platform for play – the social network service.

We find it helpful to divide the social games on *Facebook* into five generations. The division is done based on a combination of factors. Key elements include the shifting opportunities and restrictions of *Facebook* as a technical platform, developments in game design features and monetization models taking advantage of the underlying social network site, and the changes in usage and attitudes of the people playing – and not playing – games on *Facebook*.

*Facebook* games appeared in 2007 after the launch of application programming interface (API) which allowed 3rd party developers to create content for the service. However, there had been social games in *Facebook* before, and also MySpace had featured some earlier gaming content. Apparently one of the first social games was a *Catch 21* card game tournament organized by WorldWinner in 2005 that ran in *Facebook* from September 1st to September 15th with PlayStation 2 as a grand prize.<sup>3</sup> In 2006, *Facebook* employee Bob Trahan developed *Friend Game* where the user was quizzed about her friends.<sup>4</sup> In addition, it is safe to assume that *Facebook* users utilized the platform in various playful activities though it had no official support for games per se. These proto-social games on *Facebook* appear today mostly as historical curiosities.

The first generation of social games on *Facebook* started after the API was launched in 2007. *Facebook* was soon filled with games – some utilizing more social gameplay features than others. The early social games were often unofficial clones or versions of classic arcade titles, digitized versions from card and board games, quiz games, and also casual games which had gained popularity earlier. For example, there was a *PacMan* (2007), a *Risk* clone called *Attack!* (2007), and a *Scrabble* (1938) clone called *Scrabulous* (2007). Some of these games allowed player-to-player interaction, whereas others were single player games utilizing very little social design features, apart from posting high-scores to users' profile. In this first phase the games barely used the social network, nor did they monetize the users effectively. In hindsight, the

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<sup>3</sup> See:

[https://www.worldwinner.com/cgi/news/in\\_the\\_news.html?year=2005&article=09\\_08\\_2005\\_Facebook.html&item=pr](https://www.worldwinner.com/cgi/news/in_the_news.html?year=2005&article=09_08_2005_Facebook.html&item=pr).

<sup>4</sup> See: <https://www.Facebook.com/notes/Facebook/musings-of-a-Facebook-engineer/2209542130/>.

first generation was manifesting more as a testing ground for the social network games and springboard for the future, more fully developed social game design models.

The second generation of social games is marked by aggressive spread of games. Another ongoing trend was the gradual development of more capable interactive web technologies and *Facebook* API features to open up possibilities for browser based games to be more graphical and have more gameplay features. While initially social games of this generation still had little actual gaming content, they were designed to function as viral marketing for themselves. Games such as *Zombies* (2007) were released that utilized the social network and virality with a pyramid scheme mechanic (Losh, 2008). New players were invited into the game as they got “bitten” (by a mouse click) by their zombie friends. Zombie players could now recruit more players by “biting” non-participants, thus recruiting players into their expanding zombie army. Zombie armies could then fight each other in a simple zero-sum game where the results were virally broadcast inside the network. In these games the viral nature of the social network was a strong component in gameplay and such games were used for transmedial marketing purposes as well (Losh, 2008). The same basic model was applied into multiple variations, such as *Friends for Sale* (2007), where one could “buy” *Facebook* friends as pets and have popularity contests that were run within the social network. The typical second generation social game design was still rather simplistic, but the designers had started to identify some of the features specific to the *Facebook* platform.

In the third generation, the popularity of social games skyrocketed. Game design was becoming more sophisticated, as *Facebook* as a gaming platform was becoming powerful enough to handle more complex game designs. Simultaneously, the aggressive marketing through viral spread in the social media network ensured that maximal numbers of possible players heard about the games. The games being free to play, the developers had to come up with mechanics that restricted free play and drove the player towards in-app purchases to gain revenue. These *offline progress mechanics* were time based like the *appointment* and/or *energy* mechanics (Paavilainen et al., 2013), which forced the player to wait a certain amount of time before the game could progress – or the players could open their wallets for instant progression. Farm simulators like *Happy Farm* (2008) and *FarmVille* (2009) gained tens of millions of users who enjoyed easy gameplay in a friendly setting. Such games were cooperative in their nature, being later defined as *massively single-player games* (Stenros et al., 2011a).

During this time some game companies, such as Zynga, were becoming not only successful, but even infamous. Both viral features of the network and new monetization methods were used – sometimes in overly aggressive manner, which caused a lot of stir among players and game industry. One peculiar phenomenon was third party offers (i.e. lead generation offers), which led into scamming accusations. Offer walls allowed players to gain in-game currency by buying software online, subscribe to shady mobile services, or participate in various quizzes with hidden fees. Due the hidden fees it would have been often cheaper for the player to buy in-game currency directly from the game instead.

Development of social games was also changing. It became common to launch beta versions games as soon as there was something to play, called Minimum Viable Product (MVP) in the

industry. Development would go on while the game was live, and a game might change drastically overnight. The games would never be finalized, finished products, but would linger in “perpetual beta” (Nummenmaa et al., 2011). As time passed this became the expected development practice: the game would be an evolving service (Nummenmaa et al., 2013).

Due to excessive growth of game related posts, *Facebook* was forced to change its policy for applications to reduce the message spam. This marks the beginning of the fourth generation in the history of social games. As these games continued to become more sophisticated and fitting for the *Facebook* context, the aggressive viral marketing had burned through all the goodwill their users had with their friends. Some users had got completely fed up with spammy games and friend requirements for advancing in game. Indeed, these have been considered as major playability problems in social games (Paavilainen et al., 2012; 2013; 2015a). This change forced the developers to emphasize player retention instead of viral spreading of games, and thus the playable content became more important than epidemic growth in use numbers. Meanwhile, monetization strategies were developed further and took many new forms. In the fourth generation, the social game ecosystem started to stabilize as the cost of acquiring new users again required real investments from the game distributor. As advertising became more central, also aggressive cross promotion of games in ad banners became a standard practice in social network games.

Although social games became very successful and found their own format of casual gameplay in a viral network with in-game monetization, a debate focused on a view that these games were not actually social – or maybe not even games. Players, developers, and researchers (Paavilainen et al., 2016) expressed their disdain against social games that were considered something less than ‘real games’. At the time, there was also certain evolutionary hope that social games would become more social in the future, though not all developers agreed that it would be necessary (Järvinen, 2010). The casual game design values that strongly informed the ways in which social network games were developed, emphasised such social features were *acceptability*, *accessibility*, *simplicity*, and *flexibility* were the leading principles; for example real time interaction, and even active engagement in play with one’s real-world friends did not develop into a key aspect of successful social game design. Rather, the sociability that social network games provided was strong in the “alone together” (Ducheneaut et al., 2006; cf. Kultima, 2009) style of casual social contacts.

Over the years, social games maintained this focus, while becoming more versatile in providing also ‘traditional’ game experiences in the forms familiar from massively multiplayer online role-playing games, real-time strategy games, and first-person shooters. The key differentiating factors remained in the ways of how these games emphasize synchronous gameplay and direct interaction between players.

At the time of writing, in 2016, social games in *Facebook* have declined a bit in popularity as play has moved from desktop to mobile iOS and Android platforms. There are still though many successful games in *Facebook* like *Candy Crush Saga* (2012), but there are also many popular social games that feature just a landing page in *Facebook* with a link to mobile version. This is the fifth generation: social games that function on numerous platforms. The service platform that was once the most popular environment for playing games has gained another

role as a user acquisition channel for mobile gamers. The relevance of social network services nevertheless remains, and many standalone computer games today feature different sharing options to *Facebook* and other social network services.

## Characteristics of Social Network Games

Approximately the years 2006-2008 have been discussed as time period for the *casual turn* (Kultima, 2009; 2015) or the *casual revolution* (Juul, 2009). From the perspectives of game industry and game studies alike, this is when the pull of simpler, more approachable digital games could no longer be ignored. Small downloadable games, browser-based games, games with mimetic interfaces (like that of Nintendo Wii), party games where challenge or competition was not primary, games played on mobile phones, and social network games were all part of this re-emergence of digital games that are easier to pick up. These games were widening the gamer demographics. They used new distribution models and new monetization models – and as these casual games started to make considerable profit, the casual turn influenced not only the cultural conception of what is a game, but what was considered as a successful and influential game.

This casual turn was neither revolutionary, nor completely unexpected. Juul (2009) points out that casual games allowed numerous lapsed gamers who had grown up with arcade games and early console games to reconnect with games after they had been alienated by the increasingly specialized digital games of the 1990s. Kultima (2009; cf. Enevold, 2014) identifies an even wider cultural context for this change and sees the change as unsurprising – rather than revolution, the development should more properly be addressed as the *normalization* of digital play. The casual turn is revolutionary only if it is examined through the prism of enthusiastic video gamers, meaning those game fans that buy and play AAA console games, support the traditional gamer press, and strongly identify themselves as gamers. Yet when the same events are approached with a wider conception of games and gamers, it just seems that playing digital games – and digital play in general – have become widely accepted, even a transparent parts of the everyday life.

This normalization of digital play cast earlier research on digital games in a new light. While previously *immersion* has been seen as a key ingredient in game experiences with complex games featuring elaborate story-worlds and role-play (Ermi & Mäyrä, 2005; Brown & Cairns, 2004) and a *flow* state has been seen as pivotal in balancing skill and absorption in gripping game play (Sweetser & Wyeth, 2005), now alternative game design values and ideals have been identified. Play culture is no longer necessarily dominated by dedicated subcultures, but games can be found not only in easy to pick-up browser based games, but there is casual digital play happening on online services such as Flickr and Twitter (Mäyrä, 2011). Kultima (2009) has argued that casual digital play needs to take two things into consideration, first that there are new and more heterogeneous user groups, and that games are no longer necessarily an absorbing primary activity, but that they are played for numerous reasons in numerous contexts. They can be a secondary activity – and played for instrumental reasons; derived from this context and culture of play, such games can be seen to embody the aforementioned four key casual game design values: acceptability, accessibility, simplicity, and flexibility. In another, large scale player interview and survey study, major part of players



approached games with a casual mindset, primarily aiming to use them for killing time, filling gaps, or for relaxing – thus not primarily because of their interest in the actual contents of games themselves (Kallio et al., 2011). Also, Paavilainen et al. (2013) found that such casual motivations are often the driving force behind playing games in *Facebook*.

Such analysis of player motivations can then be applied into design, and Paavilainen (2010) has provided the key elements for social games in a form of high-level heuristics which can be used for designing or evaluating social games (Paavilainen, 2010). The design research can also be based on detailed studies of how popular and successful social games operate. Tyni et al. (2011) present such a close reading of the western pioneer simulation game *FrontierVille* (2010) that provides an overview how social games operated during their heyday. Utilizing the free-to-play revenue model in a clever way, the game accommodates for both paying and non-paying players while rhythm design allows the players to play either casually or intensively depending on their motivation. These rhythms of gameplay can be seen to build up from day-to-day and weekly periods towards longer cycles, a structure drawing inspiration from seasons in television series. Sociability is rather shallow, but it provides the feeling of playing together with friends (cf. Ducheneaut et al., 2006; Stenros et al., 2011a).

The broadening of perspectives to how digital games and game playing are qualitatively perceived as a phenomena, and changing understanding of who game players (or 'gamers') are, coincides in academia with the commercial restructuring of game industry. In intellectual terms, it is possible to connect the normalization of digital play to wider cultural and societal developments. For example, as casual turn entered the agenda of experts working both in academia and industry, there was also rise in the scholarly discussion that aimed to identify a more general *rise of ludus in society* (e.g. Stenros, Montola, & Mäyrä, 2007). This discourse that focused on these developments called them *ludification of culture* (Raessens, 2006) or *ludofication of society* (Walz, 2006), and aimed to make sense about the perceived proliferation of game-related thinking and game elements outside of games proper. The concept and phenomena related to *gamification* (Deterding et al., 2011; Huotari & Hamari, 2012) has in media and public discussions grown to become the most visible part of this trend, but there has also been discussion of a *ludic turn in media theory* (Raessens, 2012), and even manifestos advocating that we have entered into a *Ludic Century* where not only games, but game design and design thinking will rule (Zimmerman, 2015). It is possible to think of this change as a combination of the ludification of culture (games influencing culture) and the *cultivation of ludus* (games changing as they migrate to new territories), as Steffen P. Walz and Sebastian Deterding (2015) have argued. New game design values are needed as games have entered the cultural mainstream, and as they are being adopted in new contexts. The practices and aims of game development are thus increasingly based on "design value pluralism" rather than reducing the design principles within the game design practice into a homogenous value set.

While social network games with their advertisement and micropayment based revenue models transformed game industry, also researchers became interested in the social element of these so-called social games (Consalvo, 2011; Paavilainen, 2016). Before online gaming, the social contact needed to exist before engagement in joint gameplay session. The era of early internet gaming in the late 1990's made it possible to find friends online through the

games. Later with social games, this situation changed again as now the player already had the social network which can be utilized for playful purposes.

To account how this broader frame of developments operates in practice, more detailed understanding about social games is needed. As one response, a series of research projects were carried out by the University of Tampere research team in 2006-2016, involving the use of multiple research methodologies that were utilized for gathering information about social play, including using both surveys and interviews, targeting both players as well as developers, and also conducting expert evaluations into the actual gameplay of social games (e.g. Stenros et al., 2011a; Paavilainen et al., 2012; Paavilainen et al., 2013).






After studies that outlined the casual game cultures, related discussions and identified the casual game design values (Kuittinen et al., 2007; Kultima, 2009) one line of our research moved on to create a more inclusive and comprehensive typology of how the social interaction is linked with gameplay in different types of games. Under closer analysis, it has become clear that there is not only social interaction within games, but also around them, and there might be important social reasons that influence play also in single-player games. The social games of *Facebook* emerged as a category of their own, dominantly categorized as 'massively single player games' where one's social network's co-presence acts as the context of gameplay (see Table 1, below). According to this analysis, it is important to pay attention to how it is not only the number of players engaged directly with playing of games that has an effect on what kind sociability informs social game play. Also what kinds of player relationships are involved is crucial to take into account, and how player interactions are related to games, or with other players.

The interviews carried out among the users of social games provided also many other useful insights. It was, for example, evident that social media like *Facebook* are managed in increasingly careful manner by its users (cf. Stenros et al., 2011b). Game play is modified with the use of friend listings, and privacy settings are used to frame particular activities or comments as directed towards certain audiences. The social networks of typical users do not only consist of game players, but there are several diverse and overlapping groups where they belong, and in some of their social networks game play might be disapproved (Paavilainen et al., 2013).

By utilizing the *Playful Experiences* (PLEX) framework (Korhonen et al., 2009; Arrasvuori et al., 2011) we have found that social games provide a wide spectrum of different experiences (Paavilainen et al., 2015b). Completion, Competition, and Challenge were the most common PLEX-categories in social games, while the next experience cluster included Exploration, Fellowship, Control, Discovery, and Relaxation. Interestingly, from the aforementioned categories only Fellowship is explicitly social experience, as Competition can also have a non-social relationship towards oneself or the game – not necessarily to friends (Paavilainen et al., 2015b). As social games are getting more diverse, also the spectrum of experiences is expanding.

In addition to actual entertainment games, *playful communication* is one of the informal games or play behaviours that many people engage with in these services. In the daily flows of social

communication, invites or virtual gifts related to games can serve as *phatic* or *poetic* communication, as games are utilized as ways of social self-expression (Rao, 2008; Mäyrä, 2012). Not all social interplay, or even playfulness that involves the use of fun or humour is actually mutually enjoyable or well-meaning, though. It is important to recognize that social play sometimes has elements of playful teasing, disparaging humour, or fierce competition that can be experienced as aggression, as well (Mäyrä, 2012). The players themselves have reported that sociability in social games can also be “hellish annoyance” (Paavilainen, et al., 2013); this was something of an issue particularly while playing the second and third generation of social network games.

Players	Players' Relationship	Description
 Single Player	Reflective, Competitive*	<ul style="list-style-type: none"> <li>• Knowledge of others playing the same game makes the game more social</li> <li>• Social media have made single player gaming more transparent</li> <li>• Play increases gaming capital, made visible through reward mechanisms such as achievements and trophies</li> <li>• Single player gaming can be strongly performative</li> </ul>
 Two Players	Reflective, Competitive, Collaborative	<ul style="list-style-type: none"> <li>• Two-player gaming has many forms in relation to time, place and system</li> <li>• Communication channels include face-to-face, in-game channel(s) or 3<sup>rd</sup> party channel(s)</li> <li>• Competition is often tiered</li> </ul>
 Multiplayer	Reflective, Competitive, Co-operative, Collaborative	<ul style="list-style-type: none"> <li>• All players have direct effect on each other</li> <li>• Numerous communication channels (e.g. global, team, zone, one-on-one)</li> <li>• External communication channels such as discussion forums and wikis</li> </ul>
 Massively Multiplayer	Reflective, Competitive, Co-operative, Collaborative, Neutral	<ul style="list-style-type: none"> <li>• Macro-communities, micro-communities, friends</li> <li>• Complex communication channel hierarchy (e.g. global, groups, sub-groups, one-on-one)</li> <li>• Neutral players, players as tokens or props, playing “alone together”</li> </ul>
 Massively Single Player	Reflective, Competitive, Co-operative, (Collaborative,) Neutral	<ul style="list-style-type: none"> <li>• Content sharing between players</li> <li>• Little or no real in-game interaction between players</li> </ul>

\*Single-player competes only via mechanics that are not part of the core game play experience.

Table 1: Player relations in games (Stenros et al., 2011a).

Social games can be played in many different ways. Instead of playing the game according to the developer-intended patterns, it is possible to *play the system* – or even *play the other*

players (Stenros, 2010). Indeed, if one starts to play social games competitively, they appear to reward playing the system. In our player interviews, reverse-engineering the most profitable play patterns were a common interest amongst the more devoted players of social games such as *FarmVille*, and adding new people as friends on *Facebook* has been a strategy in gaining an advantage in the game. In a sense, the *Facebook* games that encourage sociability in order to advertise themselves do not frame people so much as individual human beings, but as numbers or in-game resources. Such design solutions can also lead to some players also to treat their friends, other people, simply as tokens. Focusing on this aspect, it can be argued that engagement in such social games is not social play, but object play where other people are treated as objects. Even if the argumentation was not taken that far, it is easy to find comparisons to other kinds of playings of system or of other players, from 'Google bombing' and 'Wikipedia edit warring' to grief play (cf. Stenros, 2015). This is a further example of how games and game-like systems are being used for different purposes in social contexts. Not all, and not always even the most important, social engagements taking place within these games appear to be primarily design driven, but rather emergent social phenomena, derived from the affordances of the social networks.

While social motivations are central for many game players, there are several other, important game player motivations as well (e.g. Yee, 2007; Kallio et al., 2011). It is also worth noticing that social motivations can operate in negative or antisocial modes, too, while informing game play. Anecdotal evidence in our player interviews suggests that for some people a single player 'social game' can factually work as a respite or antidote against the (real-world) social contacts, responsibilities and stress that they can be associated with. One example of this is a parent who both at work and at home is bombarded by communication and requests from colleagues and family members alike – a social game can for such a user be the safe haven of social isolation, where direct communication and presence of others can be blocked out for a moment.

Whereas social game players are typically driven by motives that relate to pleasures, challenges and other experiences of gaming content on the one hand, or social motivations on the other, the commercial development of social network services and social games is more typically driven by financial, commercial interests. In advertisement based business models, the key customers for a gaming company are advertising businesses, and in financial terms, game is a means to create ad displays and clicks. The human attention is from an economic perspective a scarce resource, and social games are an attractive means for focusing and controlling this attention, for financial gain (cf. Davenport & Beck, 2001). On the other hand, the rise of free-to-play revenue model and micropayments has meant that the game design is being reconceived with the monetization incentives as a key priority: while it is important that playing a game is fun and engaging to a certain degree, there also needs to be artificial obstacles or disturbances for the player experience, so that game players become motivated to purchase in-game, virtual tools and goods, or power-ups that are necessary for removing such obstacles.

Social games have been at the forefront of transfer from the off-the-shelf software product model into digital distribution models and service paradigm (cf. Stenros & Sotamaa, 2009) that have also meant comprehensive changes in the underlying game industry operational logistics

and business models. From the perspective of player, this transformation of gaming scene has on the other hand meant explosive growth of freely available gaming entertainment in the Internet, but also increasing requirements to develop new gaming literacy. The new required skills also include understanding and ability to make sensible use of games that operate under the new monetization strategies. While the initial reactions to free-to-play games in game enthusiast and hobbyist forums have often been strongly negative (Alha et al., 2014), the easily accessible social and casual games have also attracted new audiences, growing the player base in some cases into hundreds of millions. The economic growth of the game industry and the growing maturity of the field has made it easier to gain acceptance to game development as a real work and force in society. While seemingly simple, contemporary social and casual games have been developed to include sometimes rather complex systems of distinctive virtual currencies, and time investment into in-game resource harvesting and other activities that many games require can also be seen to function as certain kinds of currency systems.

The perceived value, time, and money interact in complex ways in contemporary social, online game play. Also gambling games have in some forms intermingle with entertainment games in social media from the very start, and chat or other social features have been implemented into real-money gambling services – of which the enduring popularity of Zynga’s *Facebook* version of *Texas Hold’em Poker* is just one example. Investments of real money, play money, time, and social reputation or gaming capital all combine to form new configurations, where both games and money can hold multiple, both serious and playful forms (Kinnunen, 2010). Furthermore, also social sharing of links to games, view-to-pay style interactions with game trailers and other advertisement for games, as well as actual in-game as well as pre-game and post-game activities all contribute to the more comprehensive phenomenon that we have called Expanded Game Experience (EGE) (Kultima & Stenros, 2010). As digital distribution and service design holds increasing significance to how players experience and interact with games, such approach has been necessary step in the analysis of contemporary (social) games to take into account the manner of how entering, re-entering or leaving the game has an influence on games’ significances to the players. In the current practice of commercial game productions, the business model cannot be treated as a separate layer of design, as it is intertwined with the very core of gameplay design, making it even more important to consider game design from a more holistic and comprehensive point of view.

## Conclusions and Future Directions

As a conclusion, our research of social network games suggests that the developments that have taken place as this form of designing, distributing, and playing games has become increasingly common are indicative of the directions for game business and game culture more generally. The most visible sign of this change is how *pay-to-play* services and retail games have been accompanied and sometimes also replaced by the *free-to-play* versions of games developed and distributed first inside *Facebook*, then into mobile devices and their “app ecosystems”. It also appears important to consider how “attention economy” opens up perspectives into the ways how social games are designed, and how they operate. In the age of information overflow, human attention is a scarce resource and “free” games like those distributed in social media aim to attract, manipulate, and monetize such attention in various

ways – providing particular kinds of experiences to the online, socially networked player in return. Social play and sociability themselves have appeared as so multidimensional and varied phenomena, that both the design of ‘social games’ as well as research into the forms of social (game) play have hardly yet exhausted the potentials in this field. The competencies of game playing as well as design characteristics have during the ‘casual turn’ and social games growth become an increasingly visible part of late modern culture, daily lives, and service design more generally. From this perspective, social games have been one popular element in the “ludification of culture” that is still an ongoing process.

More specifically, within the field of commercial game development and distribution, social network game features have become increasingly common in services such as *Steam*, which have expanded from game distribution channels into game-specific social networks of their own. All major digital game industry players have their own versions of such services that add multiplayer and social networking functionalities into their computer and video games today, including *PlayStation Network*, *Xbox Live*, and *Nintendo Network*. Similarly, the mobile counterparts of such services reach hundreds of millions users, most notably those of Apple iOS (Game Center) and Google’s Android (Google Play). As these environments, technologies and ecosystems have gained in the attention economy, *Facebook* has changed from being primarily a gaming platform to user acquisition and information synchronization platform. With its over a billion daily active users (as of December 2015), *Facebook* is still an attractive environment for game application developers to use in tandem with the mobile app stores, to do research and experimentation in order to reach their optimal user base, do ‘soft launches’ in limited geographical areas, and then to target marketing campaigns to reach more users. With *Facebook* acquiring Oculus, the developers of Rift Virtual Reality device for \$2 billion in 2014, the service might yet also transform into a new kind of gaming and entertainment platform in the future. Social play and interaction in immersive alternative realities are most likely an element in such a future strategy for a social network provider.

The key lessons from research into the social play and social games are hard to summarise shortly, but it is clear that studying a techno-social configuration such as games in *Facebook* and other social networking services requires multiple competencies and will benefit from multidisciplinary research team collaboration. Typically, the studies to social games combine perspectives drawn from sociology, media studies, political economy, HCI, philosophy, design research, and textual analysis – as well as from the native tradition of game studies itself. A mixed method approach, and openness towards theoretical dialogue is beneficial for grasping the complexity and wide reach of a phenomenon like social play and social games. In the case of University of Tampere social games research projects, we have particularly made use of triangulation where the perspectives of critical game analysis, player experience studies, and game industry economics are used in combination. This has helped us to understand better both the motivations of game developers for implementing certain features into these games, the reasons for players to play (or not play) them with various strategies, and also how these games function in multiple cultural and social contexts.

The potential weakness of such diverse approach is that it might lead to somewhat fragmented view: case studies that are closely observant of empirical phenomena and developments at the micro-level of individual game industry products, and game player subgroups do not easily

provide any consistent and macro-historical theories that would organise research into a unified whole. However, we feel that the benefits outweigh the limitations: only with such multi- and interdisciplinary approach can we produce the rich data and interesting combinations of research approaches. For example, the popularity and limitations of social games can at least partially be explained with both technical (e.g. game usability, distribution, platform), psychological (play motivations), commercial (e.g. marketing) and cultural factors (e.g. changes in games' societal role).

This chapter has identified and discussed the evolution of social games within a certain cultural, technical, and commercial context, including some important differences in the ways five generations of social games have been implemented and interacted with. The sociability of social play that these games are associated with has emerged in analysis both to include very broad-ranging dimensions such as the casual turn and ludification of culture and society, as well as very narrow and specific ones – including individual social functions such as invite or gift mechanisms, that have been introduced in social games as a genre.

As the social network games continue to be developed into new forms in mobile platforms, and potentially in virtual or augmented reality, and beyond, it is interesting also to reflect on the future directions of research in this field. While it is futile to try to hypothesise the future steps in information and communication technologies that will be made relevant for gaming, it nevertheless remains clear that social play will be one important element also in such future gaming landscape, and that there will be need for multidisciplinary and multi-perspectival studies into the design, experiences, practices, and significances of social games also in the future.

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