The Long Decade of Game Studies: Case of Finland

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ABSTRACT
Given the young age of game studies, the recent history and development of the field remains largely unstudied. This paper takes a closer look at 34 games-related Finnish doctoral dissertations published between 1998 and 2012. The metareview explores the diverse starting points scholars have taken to study games during the years. The results show that instead of any particular national focus, the studies rather connect to topical international discussions and debates. While a trend towards acknowledging an autonomous discipline can be identified over the studied period, the studies also contribute to a variety of other fields.

Keywords
History of game studies, Finland, disciplinary self-understanding, metareview, interdisciplinary studies, researchers as game players

INTRODUCTION
While games as such have been studied for quite a while, both the critical mass of scholars and systematic attempts to work towards an original research inquiry have emerged very recently (Aarseth 2001, Mäyrä 2008, 4–6). Accordingly, the ideological history and the recent development phases of game studies remain largely unstudied. We suggest that the ten year anniversary of DiGRA, founded in 2003, provides an appropriate opportunity to reflect on the nature and development of game studies within the past decade or so.

This paper takes a closer look at 34 games-related Finnish doctoral dissertations published between 1998 and 2012 (thereby the "long decade" mentioned in the title). Together they form an intriguing and diverse object of study, allowing us to examine the disciplinary and methodological character of existing research, and the potential changes in orientation and maturity over time.

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Several starting points can be identified for Finnish game research (Sotamaa 2009). Important early studies of play include for example Yrjö Hirn's *Barnlek* [Child's play] (1916) and Elsa Enäjärvi-Haavio's *The Game of Rich and Poor* (1932). Studies on digital games began to emerge in the beginning of the 1990s and the first PhD dissertations were published at the end of the decade. Until the early 2000s and the foundation of first games-related academic research groups, the scholarly works on games were mostly published by scattered individuals who were able to fit games to their personal research agendas.

PhD dissertations outline a particular picture of the disciplinary development: On the one hand they comprehensively document the work accepted by the Finnish university system. On the other hand the focus on completed dissertations may hide some of the alternative and nonconformist perspectives. It is also notable that many of the professors, responsible for supervising and examining the dissertations are not included in the list (as their PhDs do not fit our selection criteria). In this respect, our aim is not to produce an all-inclusive history of the Finnish game research. Rather, we want to explore the diverse starting points that have during the years allowed scholars to focus on the study of games.

DiGRA 2013 call for papers accentuates the interdisciplinary nature of game studies. Our study not only maps the diverse perspectives and methods applied within game research but also highlights how particular approaches seem to match frequently while others appear incompatible. We are aware that a detailed review of over 30 dissertations is not possible in the given paper length. Thereby, we focus on a few carefully selected themes. By looking into the studied games and referenced literature, we explore the potential connections between the dissertations. After this we move on to tease out the disciplinary development phases and trace the competing schools of thought. Finally, we take a look at how the authors discuss their personal and methodological relationship to gaming. Together these viewpoints highlight some of the key developments within Finnish game studies over the past decade.

METHDOD AND DATA

So what does a "games-related Finnish doctoral dissertation" mean, then? We have followed an inclusive selection criteria. Most of the dissertations focus on forms of digital play, including PC games, console games, online games, mobile games, location-based games, and exergames. We have also included works on role-play, business simulations, educational games, and sports, as far as the authors have in a way or another connected their work to the study of games. In addition to PhDs from Finnish universities (one of them by a foreign national [31][1]), the list includes also three Finns with a PhD from outside Finland [22,25,29].

In the first phase of the study we collected a list of known dissertations. Consulting dissertation databases and online sources helped us come up with a few additions. A preliminary list of dissertations was then openly shared via DiGRA Finland mailing list and Facebook. The crowdsourcing approach was a success and in a couple of days we were contacted by several scholars actively proposing new entries. Since then the list has been updated a couple of times as we have come across previously unidentified dissertations. Although we have done our best to discover all the relevant works, it is likely that there are still dissertations we have missed.[2] Regardless, we feel that the included theses provide a comprehensive picture of the Finnish games-related PhD level works.

Looking back, finding all the dissertations has been quite an effort and we feel that already the list itself can increase disciplinary self-understanding and history

consciousness among future scholars. Focusing on dissertations has been a practical choice. While reviewing all courses taught or works published by Finnish scholars would have been intriguing, it is clear that our resources would not have sufficed to that. We wholeheartedly encourage anyone interested to take this task. At the same time, it is clear that already collecting that information will be a non-trivial and time-consuming project, not to mention the proper analysis of the data.

The yearly division of PhD dissertations can be seen in Figure 1.

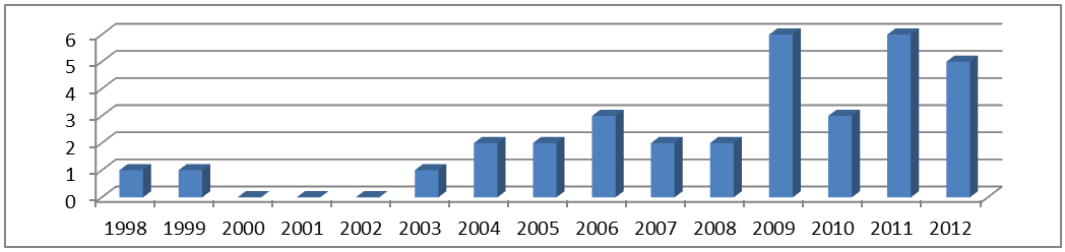

Figure 1: The annual division of games-related Finnish PhD dissertations

It is hardly surprising that the annual number of doctoral theses has increased relatively steadily in the given timeframe. The period between 1998 and 2008 provided altogether 14 dissertations. Exactly the same number of works was defended between the years 2010 and 2012.

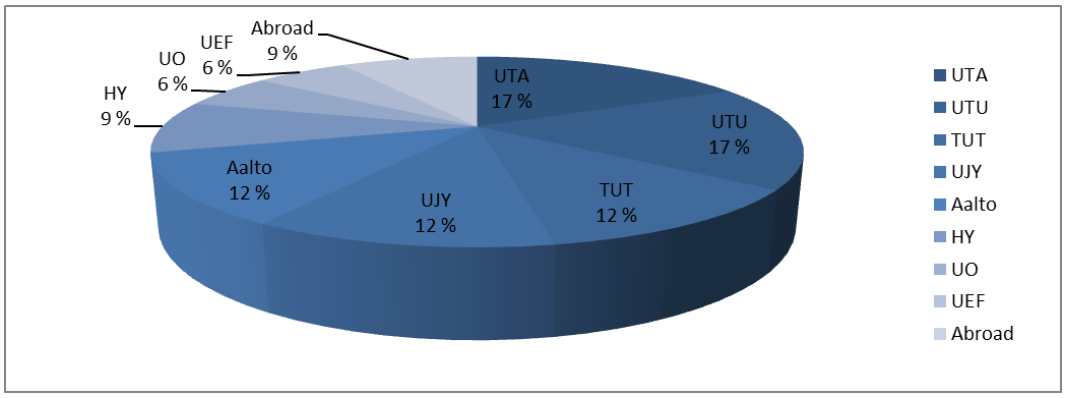

Figure 2: Distribution of dissertations between universities[3]

Figure 2 documents how different universities have contributed to the study of games. Both University of Tampere and University of Turku have provided six dissertations each. Tampere University of Technology, University of Jyväskylä and Aalto University are responsible for four dissertations each, whereas other universities have three or less entries.

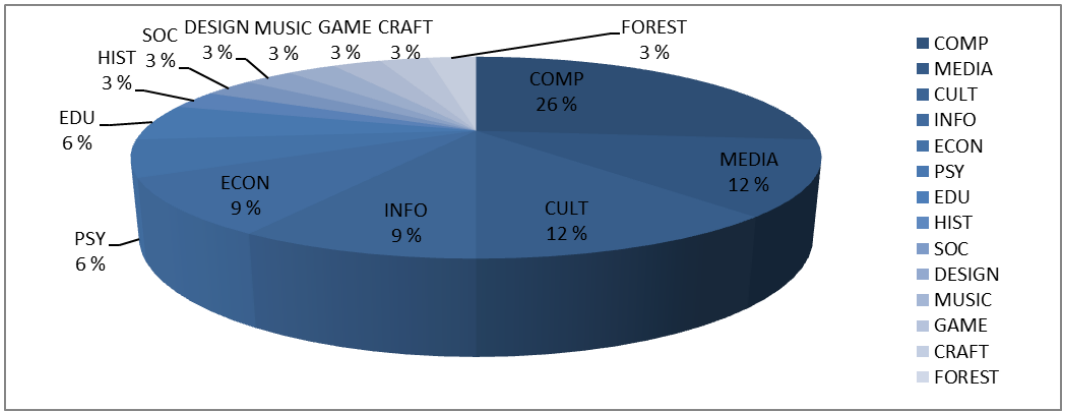

Figure 3: Distribution between disciplines

Drawing the disciplinary map was much more difficult than we expected. Highlighting the multidisciplinary nature of game research, most of the studies draw inspiration from more than one discipline. In the end, we decided to follow the official documents provided to us. Thereby, figure 3 is based on the disciplines in which the dissertations have been defended. The emerging and diverging research fields, traditions and schools of thought are discussed more in detail in the later chapters. As can be seen from the figure, computer science (including information technology, interactive technology and software technology) has provided altogether nine dissertations. Together media and communication studies (4) and cultural studies (4) have provided almost the same amount of defended theses. In addition, information sciences (3), economics (3), psychology (2) and educational sciences (2) have provided more than one dissertation.

Just under one half of the dissertations (16/34) are monographs. The rest (18/34) consist of research articles with introductory and conclusive chapters. The article thesis form, often referred as 'thesis by publication', has traditionally been preferred in technical sciences. In the recent years it has made its way to other disciplines as well. Most of the dissertations (28/34) are written in English. Six dissertations out of 34 are in Finnish. Not surprisingly, the trend appears to be towards publishing in English, as altogether four of the Finnish language dissertations are among the first seven theses on the list (years 1998-2005). The overall gender distribution of analyzed PhDs shows a male dominance (22M/12F). The situation, however, appears to be changing: if the gender distribution of the first years (1998-2006) is clearly male-dominant (M8/F2), at the other end of the observed period (2011-2012) the distribution is far more equal (M6/F5).

Funding-wise the Finnish university system follows a particular structure. Compared to many other countries, few PhD candidates have traditionally received full funding from the university. Instead, PhD students often collect their funding from various sources, including departmental funding, doctorate schools, research projects and grants from a variety of funds and foundations. The most often mentioned funding body within our data is the Academy of Finland. Altogether 14 authors have received direct funding from a doctoral school or a research project financed by Academy of Finland. Eight of the candidates have participated in a project funded by Tekes, the Finnish Funding Agency for Technology and Innovation. Also the Finnish Cultural Foundation is mentioned in eight dissertations. The most important employer outside universities is Nokia Research Center that has employed five listed authors at least at some point of their PhD project [8,10,17,25,33].

A clear-cut division between basic research and applied research is difficult to draw as many of the dissertations appear to include a bit of both. Roughly speaking, around one half of the dissertations have a clear basic research orientation. However, even these works often work towards applicability with guidelines, design implications and evaluation criteria. In this sense, the PhD works appear to reflect the tendency already earlier identified. As Mäyrä (2012) argues, there has always been more national funding for applied research and studies of emerging gaming forms. He also points out, how scholars have been able to "smuggle" more foundational research interest into the research projects with an applied focus.

Broadly speaking, the distribution of funding follows the overall funding structure familiar from more established fields. It is, however, worth mentioning that dedicated money for game research has not been available until very recently. The advent of the Finnish Foundation for Gaming Research (funding mostly gambling-related studies since 2008) and Tekes' Skene – Games Refueled program (2012–2015: funding research done in co-operation with the local game industry) has changed the situation a bit, but this does not yet show in our data. Altogether, the complete listing of funding bodies implies that even more traditional and conservative funds have in the recent years grown more positive about the study of games.

GAMES STUDIED AND LITERATURE USED

In the beginning our idea was to list all the studied games and provide a comprehensive genre and platform based division. Very soon we realized that drawing such a map was very difficult for a couple of reasons. First, while some of the dissertations focus on a single digital game [19,26,29], others introduce a wide spectrum of games and other ludic forms. One of the authors mentions he has used a "sample of over one hundred games for formulating, validating and refining the analysis methods" [13, p.43]. Another dissertation [33] includes a ludography of almost one hundred games ranging from Mass Effect 2 and Pictionary to Fear Factor, basketball, and little-known role-playing and pervasive games.

Second, around two thirds of the dissertations (23/34) include some kind of analysis of at least one commercial digital game. At the same time, exactly one half of the works (17/34) discuss games designed for the purposes of the dissertation or an associated research project. The aforementioned high number of computer science dissertations partly explains this, as most of them follow a constructive artifact-driven research approach. In addition, the self-designed games also include for example educational games [1,6,24], business simulations [3], and larps [30]. Altogether five dissertations discuss the forms and potentials of mobile and pervasive games, partly relying on building and evaluating research games and prototypes [10,17,25,31,33]. Not surprisingly, four out of five in this group have worked at the Nokia Research center.

The games designed as part of a dissertation project follow particular objectives and exhibit carefully selected features. Related to this, they rarely have commercial potential. At the same time, commercial Finnish games are rarely mentioned in the examined works. While the scope of Finnish game industry has significantly expanded along with such global hit games as Rovio's *Angry Birds* and Supercell's *Clash of Clans*, these developments appear too recent to figure in our data. The only well-known Finnish game that receives some serious examination is Sulake's *Habbo Hotel*, a virtual world intended for teenagers, that is studied in two different dissertations [16,26].

Our hunt for easily visible national characteristics suffers another setback when we turn our attention to the literature referenced in the dissertations. The Finnish pioneers like the

aforementioned Hirn and Enäjärvi-Haavio remain almost non-existent, whereas popular international classics like Huizinga and Caillois are commonly used for legitimating the dissertation and game studies in general. There is, however, one Finnish scholar who appears to connect the majority of dissertations. This person is Professor Frans Mäyrä, the founding president of DiGRA. Even if he is not mentioned in the reference list of the dissertation, he may very well have been the supervisor or the examiner of the thesis.

Mäyrä also tops the reference ranking list with mentions in twenty different dissertations. In its entirety the "canon" (author referenced in at least ten dissertations) looks as follows: Frans Mäyrä (20), Johan Huizinga (19), Katie Salen & Eric Zimmerman (17), Jesper Juul (17), Roger Caillois (14), Henry Jenkins (14), Espen Aarseth (13), Gonzalo Frasca (13), Mihaly Csíkszentmihályi (12), Chris Crawford (12), Brian Sutton-Smith (11), T.L. Taylor (10), Edward Castranova (10). We can see that most of the scholars who are still actively plying their trade, have presented their work at DiGRA conferences in the past decade.

If we now look at the list of authors that are mentioned at least in five different dissertations, we can find out the candidates with most references to this list. The top five of this ranking is as follows: Järvinen [13], Sihvonen [19], Sotamaa [20], Leino [22] and Montola [33]. Not surprisingly, all the five aforementioned researchers have presented their work in a DiGRA conference during their PhD process. A closer look to the references discloses a loose core group of researchers who appear to cite roughly the same works. In addition, these candidates 1) have defended their dissertation relatively recently, and almost invariably 2) have presented at DiGRA and 3) have worked or are otherwise closely connected to the University of Tampere Game Research Lab.

In addition to the DiGRA-influenced core group, there are also scholars who are more loosely connected to DiGRA and then there are others who have practically no connection to the association. Most of the scholars in the last-mentioned group 1) collect very little references to the "canon" and 2) are primarily focused to their home disciplines (even though their dissertations happen to be on games). In this respect – and probably somewhat obviously – the author's relationship to DiGRA appears to be quite a reliable indicator of how much game studies specific literature is referenced.

We will come back to the differences in scholarly orientation in the following subchapters. Before this, we still take a quick look at the references between the dissertation authors. The direct references between the dissertations are scarce (and mostly not even possible for the first dissertations). If we also include all the other works by the authors, a few more links can be found. Figure 4 visualizes the connections between listed dissertation authors.

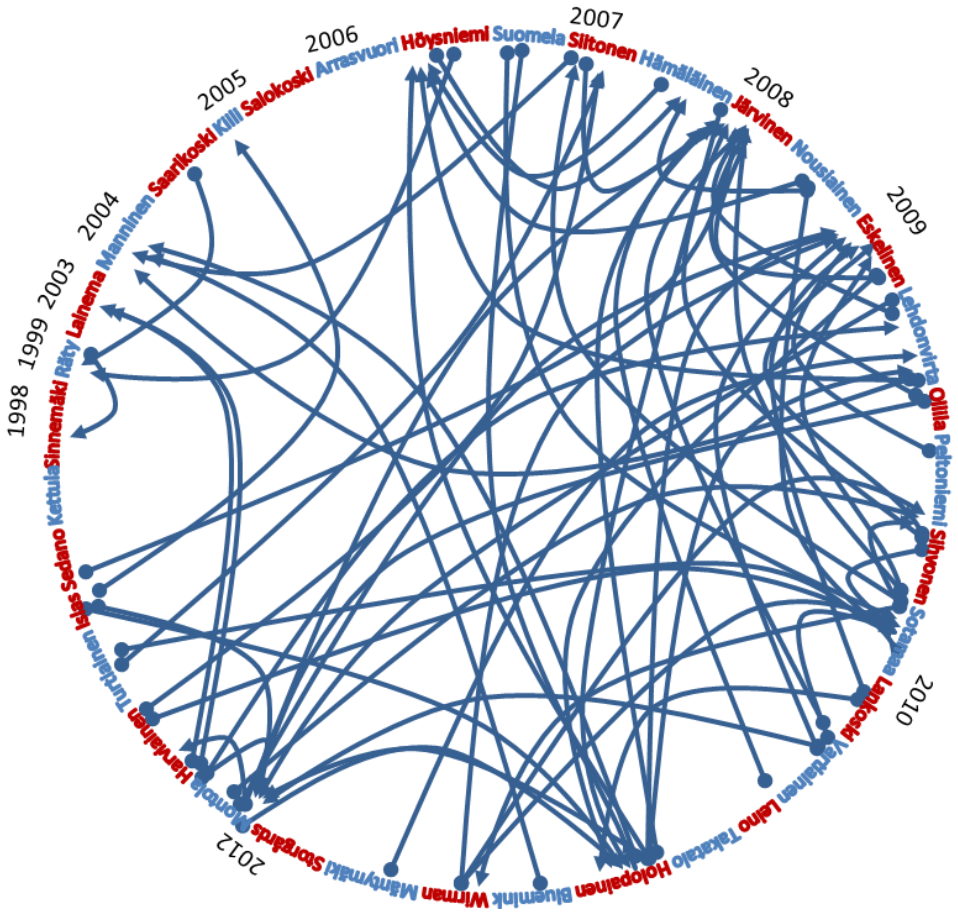

Figure 4: References between the 34 dissertation authors

A few interesting findings can be made by exploring the connections. The first candidates to complete their PhD accumulate very little references. They have entered—and in some cases also exited—the field too early and either 1) have been missed entirely, 2) have later been found somehow immature or 3) their focus and contribution differs significantly from the following dissertations. The aforementioned core DiGRA group is visible in the graph, most of them collecting several references from other authors. At the same time, there are several authors that are not cited even once. The analysis mostly confirms the above mentioned results: there is no one unified "Finnish school" of game studies, even though there appear to be some clusters or hubs out of which the DiGRA group is the largest.

Given the active role of several Nordic scholars within the game studies community, the influence of the Nordic dimension is also worth considering. It has been reported that in other developing fields, like cultural studies, the links to other Nordic countries have had an important role in creating a "homeground" to discuss the different theoretical trends (Alasuutari 1999). Academic conferences such as DiGRA Nordic and networks like Nordic Game Research Network imply an effort towards a shared arena and understanding. In addition, active game cultures, documented for example in Stenros & Montola's *Nordic Larp* (2010), and the industry activities, celebrated annually in Nordic Game conference, seem to hold a Nordic focus of some kind. At the same time, one has to remember that Finnish is not related to the Nordic languages and most of the

candidates prefer to read, write and present their work in English anyways. As presented above, the list of referenced authors does include a couple of authors with Nordic background, but no clear emphasis can be found. It appears that different kind of data, possibly looking directly into the institutional and personal relationships, is needed to properly shed light on the Nordic dimension.

DISCIPLINARY DEVELOPMENT PHASES

Philosophy of science provides various ways of dividing the development of academic disciplines into chronological phases. Kuhn (1962) has made a famous separation between pre-paradigmatic phase, normal science phase and revolutionary science phase that signifies re-examination of underlying assumptions and establishment of a new paradigm. Although some researchers have in the past years argued that the study of games has a potential to cause paradigmatic shifts (Bryce & Rutter 2006, 9–11), Kuhn's paradigm model appears not to be particularly useful in the analysis of dissertations. Due to the diverse and multidisciplinary backgrounds of the examined theses, clear-cut paradigms appear unlikely.

Silver (2006) divides the disciplinary evolution of cyberculture studies into pioneering stage, elaboration stage, proliferation stage and establishment stage. The pioneering stage is not difficult to identify within the first dissertations as the doctoral candidates both motivate and explain the potential shortcomings of their work by referring to the lack of earlier studies [2, p.144]. This rhetoric disappears relatively quickly indicating a shift to later stages. Silver's division is, however, mostly based on the institutional characteristics of disciplines, such as conferences, journals, degree programs, departments and academic positions. Even though some of the institutional changes and developments can be tracked from the doctoral dissertations, Silver's stages are not a perfect match with our data. Instead, they might better suit an analysis of institutions such as DiGRA,

Dyer-Witheford and de Peuter (2009, xxiv–xxix) argue that the development of game studies has proceeded through condemnatory and celebratory phases towards a more critical stance. Although all these viewpoints can be found from our data, they seem not to follow a simple chronological sequence. Rather, these stances can appear almost simultaneously as intertwined and competing discourses. Hence, we argue that altogether the models of thesis-antithesis-synthesis or rise, fall and new rise may not be that apt in explaining the field that brings together orientations, theories and methods from a variety of disciplinary backgrounds.

Even though game research in Finland (or basically anywhere) is far from a uniform field, there are ways of defining it and setting either open or closed boundaries. Suominen (2013) has argued that the defining of traditions has a big role in this operation. He has suggested five ways of building disciplinary traditions within digital culture: 1) emphasis of traditions of scholar's home discipline, 2) selection of applicable scholarly classics from other canons if necessary, 3) systematic production of new disciplinary turning points and classics, 4) searching and articulating histories and long durability for the researched phenomenon, and 5) recognition and definition of contemporary turning points in the researched phenomenon for the future use. Some of the related points were already raised in the prior subchapter on the used literature and oft-cited new "classics". Systematic account of the different forms of conscious tradition building within the games-related doctoral dissertations would need more space than we can afford here. We will, however, still further investigate the efforts towards a self-governing field of study. In addition, we are aware that our article takes actively part into the tradition building

process by perhaps for the first time openly proposing some characteristics for Finnish game research.

SETTING BOUNDARIES: TOWARDS AN AUTONOMOUS DISCIPLINE?

In the previous subchapter we learned that the examined dissertations refuse to follow any simple chronological division. This is, however, not to say that the advent of game studies as a recognized field of study has gone unnoticed. Instead, we can witness authors becoming increasingly aware of this new tradition, sometimes directing their contribution to the field of game studies, and other times drawing inspiration from game studies to other fields. What we need to ask next is do the candidates identify with game studies as a field, or with more established fields, or possibly both.

In order to find ways to best study games, researchers have in the past decade drawn from a variety of disciplines and traditions. Consalvo (2012, 120) locates one of the early splits in the field between effects researchers who were "working comfortably in home disciplines including psychology and sociology", and humanists and others who actively called for new methods and theories and refused to see players as "passive objects to be acted upon by all-powerful games". Examples of both can be found in our data. In her media psychological dissertation Salokoski [7] addresses the theoretical tradition of game studies inadequate, whereas Sihvonen [19], Sotamaa [20] and Wirman [29] all highlight the creative and "producerly" elements of computer game play. While these examples may be marginal as such, they indicate a larger division between those who have been content to follow the delineated paths set by existing disciplines, and those who have called for an entirely new autonomous field.

Now if we look at the studied dissertations from the perspective of disciplinary identification, three groups of approximately equal size can be identified. First, there are dissertations [6,7,10,11,14,18,24,26,27,28,32] that rely on interests and approaches motivated by other disciplines. These studies, originating for example in computer science, educational sciences and psychology, consciously direct their contribution to the existing fields and almost entirely lack references to discussions emerging from the game studies community. Second, there is group of authors who have closely followed the evolution of game studies and either identify primarily with the new field or actively apply the lessons from game studies to other fields [8,12,13,15,19,20,21,22,25,29,30,33]. The third group is placed somewhere in-between, including both works that are too early to have witnessed the raise of game studies and those that are aware of the recent games-specific theoretizations but still identify primarily with some other discipline or tradition.

While a relatively long history for the academic study of games can be drawn (Avedon & Sutton-Smith 1971), the critical mass of researchers and the systematic attempts to work towards an academic discipline have only emerged in the past decade or so. Game Studies, the first peer-reviewed journal of computer game studies, was launched in 2001, and DiGRA was founded in 2002, having its first international conference in 2003. Given the timeframe of our study (1998–2012), it is interesting to see how the influence of game studies begins to show in the PhD dissertations. Sinnemäki [1], responsible for the very first dissertation in the study, is well-read on the early studies of play and the first attempts to explain computer game-based learning. Lainema [3], for his part, discusses knowledgeably the long tradition of simulation games. Manninen's work [4], responsible for the first reference to Espen Aarseth's 2001 proclamation of the beginning of computer game studies, has hints about the need for a new field, but his main objective is still to "strengthen the position of game research as a valid area of information processing

science and digital media" [4, p.6]. Thus, it takes until Arrasvuori (2006), Siitonen (2007) and Järvinen (2008) for the DiGRA-influenced game studies to really come out.

As Copier (2003) has pointed out, coming up with a new autonomous discipline like game studies requires a lot of boundary work, defining what belongs "inside" and what is left "outside" the field. Copier's reasoning is originally tied to the debate between ludology and narratology, and especially the ludologists' insistence to study games on their own terms. While the ludology/narratology controversy is mentioned and shortly discussed in several dissertations, recognized ludologists are a rare species.

Probably the most recognized "confessional ludologist" among the authors is Markku Eskelinen, who actively participated the early debates in the international forums. Eskelinen, in his pungent style, expresses the importance of ludology "as a necessary countermeasure to the current fetishising of both players and game cultures that gravitates the field towards an interpretative and meaning-oriented synthesis of cultural studies and social sciences" [15, p.17.]. At the same time, it is worth noting, that Eskelinen's key contribution is directed to comparative literature. Other ludology-influenced authors appear to adopt less exclusive standpoints. Järvinen first proposes that we should acknowledge several ludologies and then goes on to introduce a design-oriented "applied ludology" [13, p.21–28]. Montola [33] supports a step towards a more social approach and proposes a framework that combines social constructionism with ludology. What is common to them all is that they promote the idea that one must actually play the games one is studying.

RESEARCHERS AS GAME PLAYERS

Within game studies community it is these days largely agreed that understanding games necessitates playing them. If the researcher has no personal experience of how a game is played, the probability of critical errors is bound to increase. (Aarseth 2003, Consalvo 2013). Partly related to this, Kennedy & Dovey (2007, 150–151) point out how academics have in the recent years been increasingly enabled to "come out" as computer game players. Where gamer identity once was something an academic mostly preferred to keep to her/himself, being a gamer has gradually transformed into a respectable and sometimes even celebrated scholarly stance. This leads us to ask how the authors of examined dissertations discuss their relationship to gaming.

Going through the dissertations with the aforementioned question in mind, we soon learned that the most likely source for reflections (and personal confessions) were the prefaces, acknowledgements and introductions. The first observation was that there is actually not very much reflection to be found, as around one half of the authors leave the question mostly unanswered. In some cases we could find hints of them being knowledgeable in a way that is difficult to achieve by any other method than personally playing the game, but still the critical discussion concerning the role of one's personal playing is entirely lacking. Especially if the scholars are mostly building prototypes or studying other people's gaming experiences (e.g. psychology, educational sciences), the question concerning their own playing appears not to be very relevant. The tendency to reflect one's position as a game player appears to become slightly more common during the observed period. The change is, however, more moderate than one might expect.

If we move on to authors who actually discuss their relationship to gaming, a wide range of approaches can be found. The diversity of studied games reveals how forms of play are always contextual and importantly defined by the focus of the study. Lainema, studying business simulations, "has found himself involved with business gaming since the early 1980's" [3, p.13], whereas Hämäläinen, responsible for designing a motion detection

based martial arts game, acknowledges his martial arts teachers and states as follows: “I would not have chosen the topic, and I would not understand a thing about motor learning and all things embodied, had I not practiced arts and sports myself” [11, p.7]. Where Turtiainen, who has studied sports games and fantasy sports, humorously mentions her football injuries as an expression of dedication [34, p.3], Harviainen recalls a moment in a particular larp a decade and a half ago, that “had within it all the parts of this research” [30, p.9].

An all-male subgroup of authors who remember warmly their first encounters with the early 1980’s home computers can be identified. Saarikoski, who has studied the computer subcultures from 1970s to 1990s, describes his PhD project as a rewarding and somewhat nostalgic exploration [5, p.9–10]. Manninen looks back to his youth as a time during which “[g]ames took a firm hold of me, and time not spent playing, was spent designing and programming my own games” [4, p.5]. Lankoski reports how he programmed his first computer game in the early 1980s and also published it as a source code listing in a computer magazine [21, p.11]. Montola, for his part, begins the preface by remembering how the early home computers like Commodore VIC-20 and Commodore 64 got him “hooked on computer games from an early age” [33, p.7]. In addition, of the authors of approximately same age, Järvinen retains a “life-long affinity to games” [13, p.17].

Studies that apply interpretative methods like close reading [e.g. 19, 21, 22, 25] surely necessitate a lot of playing. Still only some of the authors, notably those interested in critical and cultural approaches, underline the importance of being open about one’s gaming background as it can eventually have an influence on the motivation and focus of study [e.g. 33, p.14-15]. Siitonen, who has studied social interaction in online multiplayer communities, spends more time than any other author in discussing the methodological challenges of being personally engaged in play. He suggests that the first step of participant observation is to learn to play the game. This is however not enough, but he also convincingly argues on behalf of relatively long data-collection/playing periods. Furthermore, Siitonen considers the scholarly consequences of a long-term gaming experience and discusses the ethical considerations related to the role of the gamer-researcher within the multi-player online environment. [12, p. 32–46.]

All in all, although it has become more academically acceptable for scholars of popular culture in general, and video games in particular, to profess their fandom, significant differences appear based on the disciplinary background and the subject of study. In the preface of her dissertation Sihvonen [19] describes her relationship to the studied game as follows: “What I ended up developing between 2002–05 was a gaming habit that could be termed as a kind of addiction: I spent countless hours, at work and home, downloading custom content from the internet for my game and then testing it. Eventually I also started making my own game objects, gradually getting more and more immersed in the Sim world.” Given the subject of study, The Sims modifications, this makes perfect sense and depicts a passionate and industrious scholar. Similar attachment to the studied games might, however, arouse more suspicion if the subject of study was, say game addiction or problem gambling.

At the other end of the spectrum, Mäntymäki openly states that “[w]hen starting the dissertation process, I had no knowledge of Habbo Hotel or social virtual worlds” [26, p.4]. To a dedicated gamer this may sound strange and suspicious. We suggest that somewhat paradoxically, this can also be seen as a sign of a maturing playing field: games are increasingly taken as a serious object of study also in the traditional disciplines that do not foster gamer identity. All in all, we can see that during the observed period scholars become more open in acknowledging how playing games is an important part of

the job. However, the change appears not to be as big as one might expect. In addition, our data appears not to support the claim "that recent doctoral dissertations have been almost invariably written by gamers" (Montola 2011, 313).

CONCLUSION AND DISCUSSION

In this study we have explored Finnish doctoral dissertations published between 1998 and 2012. A development trend towards autonomous theory making can be identified within the studied period. At the same time, the examined studies contribute to a variety of fields, including for example such less obvious disciplines as craft studies [23] and forestry [32]. Researchers have become more open in acknowledging how playing games is an important part of their job. The change, however, appears not to be as big as one might expect.

The studied Finnish dissertations do not support the idea of a homogenous "Finnish School of Game Studies". The works rather link with various international discussions and debates related to the study of games. Both Finnish games and Finnish games-related literature figure marginally in the studies. Nor can we identify a visible Nordic focus from the data.

Based on our study, game research in Finland is well-connected to DiGRA. This may not come as a surprise, knowing that Finns had a significant role in founding the association and were among the first ones to set up a local chapter. Analysing the literature referenced in the dissertations shows how the most cited scholars have often been active at DiGRA. In addition, there appears to be a core group of around ten DiGRA-oriented scholars who have actively discussed their work within the international game studies community. Many of these scholars are some way connected to the University of Tampere Game Research Lab.

The particular Finnish context—including for example, the egalitarian education system and long-term high-tech orientation—certainly provides some caution for overgeneralizing the results. We, however, feel that there are larger lessons to be learned from the study, as many Finnish scholars have been visible in the international game studies community, actively opening new initiatives, contributing to the topical discussions, and participating in the key forums, including DiGRA. One of our esteemed reviewers suggested that we should compare the number of PhDs in other countries in order to see how/whether Finland is unique or typical. We wholeheartedly agree that this is good idea. The problem, however, is that no comprehensive national dissertation lists appear to be available. This is understandable as composing such a list is a non-trivial task. Consequently, we invite dedicated scholars to execute similar projects within their local academic communities.[4] Only that way we can move towards comparative studies and really raise the disciplinary self-understanding within the field of game studies.

ENDNOTES

[1] Numbers in square brackets, e.g. [31], refer to the attached list of doctoral dissertations (see the Appendix).

[2] It is our intention to keep on updating the list. An up-to-date list will be found online in the future.

[3] The University of Turku figure also includes dissertations from Turku School of Economics. Aalto University figure takes into account dissertations from Helsinki School of Arts and Design, and Helsinki University of Technology.

[4] Studies analyzing doctoral dissertations of other multidisciplinary areas such as environmental, gender, media or tourism studies, can help in creating methodologies for the comparative analysis. At the same time, for example, studies and reviews of doctoral dissertations of tourism have been mainly carried out country by country and remain mostly in descriptive level (see e. g. Jafari and Aaser (1988), Huang 2011).

BIBLIOGRAPHY

Aarseth, E. (2001). Computer Game Studies, Year One. *Game Studies*, 1(1).

Aarseth, E. (2003). Playing Research: Methodological Approaches to Game Analysis. In *Proceedings of the 5th Digital Arts & Culture Conference*. Melbourne, Australia.

Alasuutari, P. (1999). Is there a Nordic Cultural Studies? In Johan Fornäs (ed.): *Advancing Cultural Studies* (pp. 31-35). Stockholm: JMK, Stockholm University.

Avedon, E.M. & Sutton-Smith, B. (ed.) (1971). *The Study of Games*. New York: John Wiley & Sons.

Bryce, J., & Rutter, J. (2006). An Introduction to Understanding Digital Games. In J. Rutter & J. Bryce (Eds.), *Understanding Digital Games* (pp. 1-17). London, Thousand Oaks & New Delhi: Sage Publications.

Consalvo, M. (2012). The Future of Game Studies. In Gates, K. (ed.), *The International Encyclopedia of Media Studies* (pp. 117–139). Malden: Wiley-Blackwell

Copier, M. (2003). The Other Game Researcher – Participating in and Watching The Construction of Boundaries in Game Studies. *Level Up Conference Proceedings*. Utrecht: University of Utrecht.

Dyer-Witheford, N. & de Peuter, G. (2009). *Games of Empire: Global Capitalism and Video Games.* Minneapolis: University of Minnesota Press.

Dovey, J. & Kennedy, H. (2007). From Margin to Center: Biographies of Technicity and the Construction of Hegemonic Games Culture. In Williams, P. & Heide Smith, J. (eds.), *Players' Realm: Studies on the Culture of Videogames and Gaming* (pp 131–153). Jefferson (N.C.) & London: McFarland.

Enäjärvi-Haavio, E. (1932). *The Game of Rich and Poor: A Comparative Study in Traditional Singing Games*. Helsinki: Suomalainen tiedeakatemia.

Hirn, Y. (1916). *Barnlek: Några Kapitel om Visor, Danser och Små Teatrar*. Helsinki: Söderström & Co.

Huang, S. (2011). Tourism as the Subject of China's Doctoral Dissertations. Annals of *Tourism Research*, 38 (1), pp. 319–322.

Jafari, J., & Aaser, D. (1988). Tourism as the subject of doctoral dissertations. *Annals of Tourism Research*, 15(3), 407–429.

Kuhn, T.S. (1962). The Structure of Scientific Revolutions. Chicago, IL: University of Chicago Press.

Montola, M. (2011). Social Constructionism and Ludology: Implications for the Study of Games. *Simulation & Gaming*, 43(3), 300–320.

Mäyrä, F. (2008). *An Introduction to Game Studies: Games and Culture*. London, Thousand Oaks & New Delhi: Sage Publications.

Mäyrä, F. (2012). On Finnish Games Research, Thoughts from DiGRA Nordic 2012. Blog post: http://fransmayra.fi/2012/06/09/on-finnish-games-research-thoughts-from-digra-nordic-2012/

Silver, D. (2006). Introduction: Where Is Internet Studies? Silver, D. & Massanari, A. (eds.), Critical Cyberculture Studies. New York & London: New York University Press.

Sotamaa, O. (2009). Suomalaisen pelitutkimuksen monet alut. [The Many Beginnings of Finnish Game Research]. Suominen, J. et al (eds.), *Pelitutkimuksen vuosikirja 2009* (pp. 100-105). http://www.pelitutkimus.fi/wp-content/uploads/2009/08/ptvk2009-09.pdf

Stenros, J. & Montola, M. (2010). *Nordic Larp.* Stockholm: Fëa Livia.

Suominen, J. (2013, forthcoming) Kieltäydyn määrittelemästä digitaalista kulttuuria – eli miten muuttuvalle tutkimuskohteelle ja tieteenalalle luodaan jatkuvuutta. [I Refuse to Define Digital Culture – Or, How to Create Continuity to Changing Research Phenomenon and Discipline]. *WiderScreen* 2–3/2013.

APPENDIX: ANALYSED FINNISH PHD DISSERTATIONS

1. Sinnemäki, Jussi (1998). *Tietokonepelit ja sisäinen motivaatio: kahdeksan kertotaulujen automatisointipeliä.* [Computer Games and Inner Motivation: Eight Games for Automation of Multiplication Tables]. Department of Teacher Education, University of Helsinki.
2. Räty, Veli-Pekka (1999). *Pelien leikki. Lasten tietokonepelien suunnittelusta sekä käytöstä erityisesti vammaisten lasten kuntoutuksessa.* [The Play of Games. On Design and Use of Children's Computer Games Particularly in Rehabilitation of Disabled Children]. Visual Culture, Helsinki School of Arts and Design.
3. Lainema, Timo (2003). *Enhancing Organizational Business Process Perception – Experiences from Constructing and Applying a Dynamic Business Simulation Game*. Information Science, Turku School of Economics.
4. Manninen, Tony (2004). *Rich Interaction Model for Game and Virtual Environment Design*. Computer Science, University of Oulu.
5. Saarikoski, Petri (2004). *Koneen lumo. Mikrotietokoneharrastus Suomessa 1970-luvulta 1990-luvun puoliväliin*. [The Lure of The Machine. Computer Hobbyism in Finland from The 1970s to The 1990s]. General History, University of Turku
6. Kiili, Kristian (2005). *On Educational Game Design: Building Blocks of Flow Experience*. Information Technology, Tampere University of Technology, Pori Unit.
7. Salokoski, Tarja (2005). *Tietokonepelit ja niiden pelaaminen*. [Computer Games and Their Playing]. Psychology, University of Jyväskylä.
8. Arrasvuori, Juha (2006). *Playing and Making Music: Exploring the Similarities between Video Games and Music-Making Software*. Ethnomusicology, University of Tampere.
9. Höysniemi, Johanna (2006). *Design and Evaluation of Physically Interactive Games*. Interactive Technology, University of Tampere.

10. Suomela, Riku (2006). *Constructing and Examining Location-Based Applications and Their User Interfaces by Applying Rapid Software Development and Structural Analysis*. Software Technology, Tampere University of Technology.
11. Hämäläinen, Perttu (2007). *Novel Applications of Real-Time Audiovisual Signal Processing Technology for Art and Sports Education and Entertainment*. Information Technology, Helsinki University of Technology.
12. Siitonen, Marko (2007). *Social Interaction in Online Multiplayer Communities*. Speech Communication, University of Jyväskylä.
13. Järvinen, Aki (2008). *Games without Frontiers: Theories and Methods for Game Studies and Design*. Media Culture, University of Tampere.
14. Nousiainen, Tuula (2008). *Children's Involvement in the Design of Game-Based Learning Environments*. Information Science, University of Jyväskylä.
15. Eskelinen, Markku (2009). *Travels in Cybertextuality - The Challenge of Ergodic Literature and Ludology to Literary Theory*. Digital Culture, University of Jyväskylä.
16. Lehdonvirta, Vili (2009). *Virtual Consumption*. Economic Sociology, Turku School of Economics.
17. Ollila, Elina (2009). *Using Prototyping and Evaluation Methods in Iterative Design of Innovative Mobile Games*. Software Technology, Tampere University of Technology.
18. Peltoniemi, Mirva (2009). *Industry Life-Cycle Theory in the Cultural Domain: Dynamics of the Games Industry*. Department of Knowledge Management and Logistics, Tampere University of Technology.
19. Sihvonen, Tanja (2009). *Players Unleashed! Modding The Sims and the Culture of Gaming*. Media Studies, University of Turku.
20. Sotamaa, Olli (2009). *The Player's Game: Towards Understanding Player Production Among Computer Game Cultures*. Journalism and Mass Communication, University of Tampere.
21. Lankoski, Petri (2010). *Character-Driven Game Design: A Design Approach and Its Foundations in Character Engagement*. Media Lab, Aalto University.
22. Leino, Olli (2010). *Emotions in Play: On The Constitution of Emotion in Solitary Computer Game Play*. Game Studies, IT University of Copenhagen, Denmark.
23. Vartiainen, Leena (2010). *Yhteisöllinen käsityö: Verkostoja, taitoja ja yhteisiä elämyksiä*. [Community Handicrafts: Networks, Skills and Shared Experiences]. Craft Science, University of Eastern Finland.
24. Bluemink, Johanna (2011). *Virtually Face to Face: Enriching Collaborative Learning through Multiplayer Games*. Educational Science, University of Oulu.
25. Holopainen, Jussi (2011). *Foundations of Gameplay*. Computer Science, Blekinge Institute of Technology, Sweden.
26. Mäntymäki, Matti (2011). *Continuous Use and Purchasing Behaviour in Social Virtual Worlds*. Information Systems Science, Turku School of Economics.
27. Storgårds, Jan (2011). *Brand Equity of Digital Games: The Influence of Product Brand and Consumer Experience as Sources of Unique Value*. Information Science, Aalto University.
28. Takatalo. Jari (2011). *Psychologically-Based and Content-Oriented Experience in Entertainment Virtual Environments*. Psychology, University of Helsinki.
29. Wirman, Hanna (2011). *Playing The Sims 2: Constructing and Negotiating Woman Computer Game Player Identities through The Practice of Skinning*. School of Creative Arts, University of the West of England, Bristol, UK.

30. Harviainen, J. Tuomas (2012). *Systemic Perspectives on Information in Physically Performed Role-play*. Information Studies and Interactive Media, University of Tampere.
31. Islas Sedano, Carolina (2012). *Hypercontextualized Games*. Computer Science, University of Eastern Finland.
32. Kettula, Kirsi (2012). *Towards Professional Growth: Essays on Learning and Teaching Forest Economics and Marketing through Drama, Role-Play and Reflective Journals*. Faculty of Agriculture and Forestry, University of Helsinki.
33. Montola, Markus (2012). *On the Edge of the Magic Circle: Understanding Pervasive Games and Role-Playing*. Information Studies and Interactive Media, University of Tampere.
34. Turtiainen, Riikka (2012). *Nopeammin, laajemmalle, monipuolisemmin. Digitalisoituminen mediaurheilun seuraamisen muutoksessa*. [Faster, Wider and More Diverse. Digitalization and Changes in Following Media Sports]. Digital Culture, University of Turku, Pori Unit.