From Gamers to Scholars: Challenges of Teaching Game Studies

Jose P. Zagal
College of Computing
Georgia Institute of Technology
jp@cc.gatech.edu

Amy S. Bruckman
College of Computing
Georgia Institute of Technology
asb@cc.gatech.edu

ABSTRACT

This article reports on the results of a study that explores the issues and challenges faced by instructors of games studies classes. Using a semi-structured protocol, we interviewed twelve professors and instructors of game studies courses. The interviews were transcribed and iteratively coded in order to refine theoretical categories, propositions and conclusions. Our results indicate that learning about games can be challenging for multiple reasons. For instance, an extensive prior videogame experience often interferes with students' abilities to reason critically and analytically about games. They also have difficulties articulating their experiences and observations. The medium itself also presents obstacles in access. Students must be skilled at games in order to fully experience them and technological barriers make it difficult to provide older games for students to experience. The article describes many of the solutions that instructors are adopting in order to overcome these challenges. We conclude by drawing attention to the issue that current game studies courses run the risk of limiting the diversity of people who could become game scholars.

Author Keywords

games learning, , teaching game studies

INTRODUCTION

According to the Entertainment Software Association (ESA), 75% of heads of households in the US play videogames and the average game player (not buyer) is 30 years old [6]. These statistics are similar in other countries such as Great Britain, where 59% of the population between 6-65 years of age are gamers [14]. For many, computer games are already a phenomenon of greater cultural importance than, say movies, or perhaps even sports [1]. Videogames are undeniably affecting our culture, the way we socialize, communicate, and how we think about the world.

The size and importance of the videogame industry is in contrast with our understanding of the medium of videogames. As recently noted by the president of the Digital Games Research Association (DiGRA), the field of game studies is still in the process of establishing its identity [12]. Game studies is an emerging field whose members are wrestling with what its fundamental concepts, ideas and theoretical models should be.

The challenges faced by this field coincide with an increased demand for knowledge, skills and training for people who have an interest in learning about and studying games. The last five years have witnessed an explosion in the number of universities and colleges that are teaching "game courses" and offering game-related degrees. Colleges and universities are not only teaching classes in game analysis, design and development, but they are also wrestling with the issue of how best to do it, what the challenges involved are and what they should expect students to learn.

What does it mean to "understand games"? What does it mean to have a critical discussion about them? What does it mean to be literate, or even fluent, in games? Is the practical, and often encyclopedic, knowledge students have of games useful to them when studying them? These are some of the open questions we have begun to formulate as we consider what the future of the field of game studies may look like. This article examines the challenges and difficulties that students face as they begin to study games seriously.

Asking these sorts of questions and exploring these issues is important to the field of game studies for multiple reasons. Game studies is coalescing around researchers from multiple disciplines and scholarly backgrounds and it has only just started to establish and define its own identity. While the founders of the field may have come from computer science, sociology, media studies, and other fields, there is a new generation of scholars who are coming directly into the field. Game studies can now be seen as a viable, international academic field [1]. To the new members of the field who arrive unburdened by baggage from other disciplines, what does it mean to learn and participate in game studies? What skills should they acquire? What body of knowledge should they master? What are the challenges and the difficulties they will find? Have we created a space where ideas about games can be proposed, created, built upon, and linked to knowledge that

has been developed? To borrow from Mäyrä, do we have a "space for contributing deep, critical knowledge about games" [12]?

The truth is we don't really know. However, one possible avenue towards achieving this goal is to explore and understand the challenges faced by students currently taking game studies classes. By looking at the difficulties involved in learning about games we gain insight into some of the future needs of the field together with how the medium of the videogame affects its study. We hope that the findings of our research will help the larger community of game studies reflect on, and shape the answers to questions such as what does it mean to understand games?

METHODS AND DATA ANALYSIS

In order to explore the challenges of learning and teaching game studies, we interviewed professors and instructors who teach games studies courses. In our study we use qualitative methods to explore the diverse ways in which game studies courses are taught at the university undergraduate and graduate levels. We are interested in understanding how professors make sense of their experiences with these courses. As part of our ongoing research, we are also interviewing students taking games classes to investigate the challenges they face as students. Although those results are not reported here, they are consistent with what we learned from our interviews with instructors.

We take an inductive approach based on general research questions informed by games studies literature as well as some initial hypotheses. In addition to asking for details about the courses the instructors teach and the challenges faced by the students, our interview protocol includes open-ended questions about what changes they would make to courses, what they expect students to get out of the courses they've taught, what skills and knowledge students are expected to have in order to be successful in the class and what role their prior experience with games plays in their success in the class. Interviews are semi-structured to ensure that all participants are asked certain questions yet still allow participants to raise other issues they feel are relevant to the research. Our protocol includes questions such as:[1]

- Tell me about the assignments and class activities you had the students engage in.

- What do students have the most difficulty accomplishing?

- What can you say about the role of students' prior knowledge of games in the context of your class?

As recommended for qualitative research [7], we employ theoretical sampling in which cases are chosen based on

theoretical (developed a priori) categories to provide polar types, rather than for statistical generalizability to a larger population (see Table 1) [5]. We looked to interview instructors and professors from a variety of institutions of higher-learning and who had some degree of experience with research in game studies. We also sought diversity in teaching experience, from those who had taught a game studies course only once, to those who had taught multiple courses. Other categories covered the types and sizes of courses taught, ranging from large, and introductory undergraduate lecture-style courses to small, advanced graduate discussion-based seminars. Additionally, we made no attempt to provide definitions of what a "game studies course" was. When asked "Tell me about one or more game studies courses you have taught", interviewees are free to use their own understanding of the field and thus talk about courses that they feel are relevant to games studies. This helps ensure a broader range of courses, which was one of the desired goals.

Table 1: Categories and criteria for participant selection

Category	Criteria
Instructor	\<Novice Instructor, Experienced Instructor\>
	\<Experienced Games Researcher, Novice Games Researcher\>
Course Type	\<Introductory, Advanced\>
	\<Required, Optional\>
Course Style	\<Lecture, Discussion, Practicum, Mixed\>
Class Size	\<Large: More than 30 students, Regular: Less than 30 students\>
Students	\<Graduate, Undergraduate, Mixed\>
	\<Homogeneous Academic Background, Heterogeneous Academic Background\>

We conducted twelve interviews between August and December of 2006. Interviewees represented a total of ten institutions of higher learning from eight countries. Many interviewees reported on multiple classes. Interviews were conducted in person and by telephone, averaging 62 minutes and ranging from 35 to 74 minutes in length. All interviews were audio-recorded and transcribed. Data analysis was conducted in an iterative process, in which data from one interviewee were confirmed or contradicted by data from others in order to refine theoretical categories, propositions, and conclusions as they emerged from the data [7]. All interviewee names appearing in this article have been changed for privacy (See Table 2).

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[1] The full protocol is available from the authors

Table 2: Participant pseudonyms and class details

Alvin (experienced researcher and instructor) • Teaches optional, regular-sized, homogeneous, introductory and advanced undergraduate lecture and graduate discussion classes.
Bert (experienced researcher and instructor) • Teaches required, regular-sized, introductory and advanced, heterogeneous, graduate discussion and practicum classes.
Charlie (novice researcher and instructor) • Teaches a required, regular-sized, introductory, homogeneous undergraduate discussion class
Diane (experienced researcher, novice instructor) • Teaches required, large, introductory and advanced, heterogeneous undergraduate and graduate lecture and discussion classes.
Edward (experienced researcher and instructor) • Teaches required and optional, large and regular-sized, introductory and advanced, heterogeneous, undergraduate and graduate, lecture and mixed classes.
Faye (experienced researcher and instructor) • Teaches required and optional, large and regular-sized, introductory and advanced, heterogeneous, undergraduate and graduate, practicum and discussion classes.
George (experienced researcher and instructor) • Teaches required, regular-sized, introductory and advanced, homogeneous, undergraduate, lecture and mixed classes.
Harold (experienced researcher and instructor) • Teaches required and optional, regular-sized, introductory, heterogeneous, undergraduate and graduate, discussion classes.
Iris (novice researcher, experienced instructor) • Teaches a required, large, introductory, heterogeneous undergraduate lecture class.
Judy (experienced researcher, novice instructor) • Teaches required, regular and large, introductory, heterogeneous, undergraduate and graduate, lecture and discussion classes.
Kirk (experienced researcher and instructor) • Teaches required and optional, large and regular-sized, homogeneous, introductory, undergraduate and mixed, lecture and discussion classes.
Lance (novice researcher, experienced instructor) • Teaches required, large-sized, introductory, homogeneous undergraduate practicum class.

FINDINGS

Student Background

People who are interested in learning about games come from as wide a variety of academic backgrounds as researchers in games studies. Faye says, "you have computer science students, there's people who come because they love games, there's visual design students, I get a large number of film students, students from the business school, or students from any number of backgrounds, anthropology, psychology, etc." Most share an interest in games due to prior and current life experiences. Many aspire to work in the games industry. Other students, especially at the higher levels of education, want to complement their already games-related professional lives. Some are professional game designers, journalists, or musicians with years of practical experience. For them, applying to games-related programs or taking games classes is a way of "linking their passion and expertise in games, with what they do professionally" says Bert. Perhaps surprisingly, some do not have what we would call a formal education.

The most common differentiator, especially at the undergraduate level, is the academic background of the students. Most often, students come from technical backgrounds (computer science, engineering) or the humanities (media studies, art, or film).

What effect does this variety of interests, background and expertise play in the context of a single course? First, it makes it harder to establish a common level of academic discourse in the class. When you have people with different backgrounds, the common denominator becomes quite low. Harold describes the issue as "if I try to make it very basic, then of course, some people would be bored and find the level too low. Half the class wants one thing, and the other wants another. It can be quite frustrating for all parties involved." On the other hand, particularly in design-focused classes, the heterogeneity of the students provides them opportunities to experience different perspectives and move away from their areas of familiarity. Additionally, students can bring multiple skills to bear in their design projects as well as practice the communicational and management skills that will be useful to them in the workplace.

Role of Prior Experience with Videogames

Literature in education and learning has highlighted the important role that prior experience can play in learning [3, 9, 10]. In particular, it is important to establish personally meaningful connections with what is to be learned [13]. For example, the creation and design of games, considered personally meaningful to kids, has been explored as a productive means for learning computer programming [4, 8]. We hypothesized that students' extensive personal histories with videogames would be an asset towards learning about games.

Our research shows that prior experience with videogames can have a positive effect in the students' motivation,

commitment and dedication. Charlie describes how "they realized that their passion could transform into something more serious. Even if they do not want to be involved in game studies or industry, they realized that gaming is not just for nerds, or for losing time, but something that deserved particular attention." Also, students' personal game histories provided them with a rich source of knowledge to draw from.

> *"[Students] regularly come up with really good examples that aren't discussed in any of the class materials. They rely on their own experiences, memories, and the expert knowledge they have of some genres. They can highlight the complexities that are involved in an issue rather than have this kind of uniform understanding of some received wisdom. We regularly ended up with this kind of varied and multicolored idea of the multiple points of view related to all the various aspects of games, their features, their role in social life, culture and so on."* – Bert

However, we found that the role of personal game playing experience, especially when it was significant, was often negative.

> *"Their personal experience with games is actually a hindrance. It would be far better if they were coming at it without any experience in games. I find that what I do most is peel away what they already think they know from playing these previous games. So that's the biggest problem: peeling that 'knowledge' away."* – Lance

In many ways, being expert videogame players interferes with their abilities to step back from their role as "gamers" or "fans" and reason critically and analytically about the games they are studying or designing. As Edward describes, "it's harder for them to step back objectively and get past the [idea that] I like games, I like to approach it as a fan, I wanna like a game… anything else either doesn't interest them or they can't seem to get around it."

> *"Students who know every game often have preconceptions about what games are, and I have to break those preconceptions. I have to find ways to make them see that games are an aesthetic form that hasn't been exhausted. Just because these are certain games or genres in existence, and this is the way things are... This is not the only way it can be! And so, breaking that down is sometimes more difficult than starting*

> *from scratch with someone who's maybe a casual gamer or just curious"* – Faye

Students also find it harder to accept new ideas about games when their judgments are clouded by false assumptions about particular genres, titles and even the era a game is from. For example, they often assume that an Atari 2600 game, due to its simplicity in graphics and archaic hardware platform, isn't worthy of in-depth analysis or can't have any artistic or cultural meaning. The apparent complexity of a game and the meaning they might be able to tease out seem at odds.

Students are also challenged by having to shift from treating a game as a "consumer media good" to a cultural artifact that can have embedded meaning and ideas. Playing a game as a child over countless weekends with your friends creates a strong and lasting emotional experience that is difficult to overcome. Games that have been played in the past are viewed with nostalgia, and students have to come to terms with, in Alvin's words, "separating the memories of the good old times they had, with the harsh reality that 90% of retro games are just rubbish."

The diversity of the prior videogame experience students also plays an important role. While they often have over ten years of experience playing videogames, that experience can be limited in diversity. It is typical for students to have a specialized understanding of a particular game genre, like first-person shooters, but be completely ignorant, in terms of experience, of other genres like puzzle or sports games. Their knowledge is so ingrained in particular genre conventions, that taking alternate viewpoints and discussing other phenomena becomes much harder. This difficulty is often met with disbelief and strong emotional reactions. Lance describes how students "actually get angry, 'cause they think that they *know* games. They really get confused, angry, and frustrated because, they've been playing games all their life!"

Students often react by antagonizing the instructor when faced with the thought that they may not be as well-educated as they thought. As Iris describes, "some of them are convinced that they already *know* videogames. They already have an opinion and you can't teach them anything about a game they already played. In their minds, they're already experts. Their attitude is that you can't correct me." Students also question their teachers' gaming credentials: Who are you to tell me this? What games did you design? Have you played all the games I have? What games do you know?

Sometimes student's attitudes can also negatively affect their relationship towards the university itself. Instead of being a place where they can learn, the university course simply becomes a necessary step in the process of getting a diploma or a means for learning specific software tools they think are needed to get a job. In their minds, they are already qualified to work in the game industry, and everything else simply becomes an obstacle towards

meeting that goal. As Lance mentions, "they think they already know how to make the best first person shooter or the best strategy game. So, their attitude is to demand that I just show them the 3D tools so they can start making them."

Games Literacy

A lot of experience with videogames can also help confuse two issues: playing for fun and entertainment with playing for critical analysis and understanding. Kirk describes how "[students] mistake being successful at the play of the game, being a good player, as being a clever player...or a player with insight. The ability to perform in the game is not the same as being able to read or think about the game carefully." For some students, analyzing a game is equivalent listing all its features together with their opinion: is it cool or not? "A lot of times people, when they get right down to it, sort of slip into feature reviews. It's one of the most difficult things to break, that kind of loose judgment on whether something is working or not", says Faye.

We found that it is common for students to have problems expressing ideas about gameplay or articulating their experience with games. Our research suggests that students are generally lacking in models of what an in-depth analysis or a game critique look like. "They write reviews, so they say this is a really good game. I think that that's because most of the things that they've read have been games journalism, so they're kind of following that mode", says Judy. Unfortunately, game reviews, which are written to help consumers decide whether or not they want to purchase a certain game, are a poor referent for the kinds of in-depth analysis and critique which are often expected of students. While students often have a very good feel for gameplay aspects, they can have difficulties articulating what these aspects are, and how they interact with each other to produce a game experience.

> "We don't have a strong vocabulary for understanding what happens when you play. It's difficult to open up emotionally and describe what you feel. We experience games at a very visceral level and don't have, as a culture, a strong literacy in discussing games. You might go to a movie and someone who's not a filmmaker can discuss with you, at a deep level, the character motivations, or the editing of the film. The same can't really be said about gameplay. People can discuss the technology, but that's not what I'm interested in. I'm interested in how gameplay affects the human being, how the emotional experience is playing out" – Faye

Faced with these issues, course instructors have adopted a variety of approaches to help students engage in the sort of discourse that is expected. George describes, "I provide a vocabulary and framework for games, both game design

patterns and the game ontology project[2], so that they can look at a game and see the kinds of parts which are used when you describe what happens during a game, what are the structural components in a game, and so on." Charlie, who also uses game design patterns and the game ontology [2, 16], illustrates, "with these tools they recognize things that they might know, and then transform their language together with their comprehension of games."

Students are also often asked to write journals or take notes of their experiences playing games. These self-reflective, often story-telling, experiences help students, in Faye's words, "get into their emotional state and try to understand what they're feeling and thinking." Also, as Judy points out, "they [students] can begin to illustrate an argument or analysis with concrete examples of how a particular aspect of something is managed. Instead of going into a generality about a game, they are thinking about it in more specific details."

Issues of the Medium

Fully experiencing a videogame is comparable to being skillfull at playing it. Can you push the buttons fast enough in order to gain access to the final area? Iris describes how a student once confided, "I no longer play videogames because I don't understand the controls. Give me a NES controller any day, but these new ones with all those buttons? I don't know what to do with so many buttons!"

> "*The idea of being good at something, especially in a videogame, where we don't really have random access to every page, we cant' skip around, means that in some games there may be certain aspects of the game that are unavailable to you. You know, unless we use saves, or all these sorts of tricks that we can use to see parts of the game. But you might, whether through frustration or just through inability, not really unlock the game's secrets...even if you're very adept at uncovering them once you find them.*"
>
> – Kirk

This problem of access poses a challenge to students and instructors on multiple levels. Students who are unfamiliar with a particular game have to acquire and practice the skills necessary to be proficient at it. This entry barrier makes it harder to establish a common reference point for all the learners in a class. Harold describes his experience with a student unfamiliar with first-person shooters, "we

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[2] Game design patterns and the game ontology project (www.gameontology.org) are frameworks that provide concepts and vocabulary for describing and analyzing structural elements of games and how they relate to each other.

were playing Counter Strike, and it was painfully clear that [the student] did not know anything about how the game worked, or how any first person shooter works." While you could assume that most students are familiar with first-person shooters, the same cannot be said of other genres. The breadth of games, despite their potential value as objects of study, becomes limited by their exclusion due to lack of student's familiarity with them. Also, playing games is time-consuming, and often, playing all the games that are assigned in a class is simply impossible.

> "*Say you have twenty different games you want the class to have exposure to. Now imagine how many hours of play that would take!*" – Judy

There is no easy solution. Some classes take a broad, yet shallow, approach where it is assumed that the students will play all the games, though none for very long. In other cases, individual students are nominated as the "expert" for a particular game. They are expected to devote a significant amount of time to playing and understanding a particular game. Then they give a presentation, including a demo, of important aspects of the game. Some classes implicitly assume that the student is already experienced with the games that will be studied. Hopefully, the student will have a broad enough background so as to be intimately familiar with the games required for class. As discussed later, this might be a dangerous assumption when we consider the future of the field of game studies.

Technology can also play a problematic role when studying games.

> "*It's really difficult to teach a class across the spectrum of historical platforms and the evolution of interface languages. I mean, it's just difficult to make sure that you have a working version of the original Super Mario Brothers when you only have one and I have to bring in my own machine to play it. The lab doesn't, you know, have every old game console available*" – Faye

The problem of providing students with access to games that are important to the history of videogames is not about curiosity or nostalgia. As Edward describes in the context of his game design class, "We're having to consider going back so that they don't re-invent the wheel every time they think of a game design or how a game could work. It's about knowing what has been done or also, what good experiments and innovations have occurred." These difficulties often lead to students blindly pursuing ideas that have historically proven ineffective, or impoverish their chances of capitalizing and building on prior knowledge and experience.

Role and Influence of the Field

Most of our study participants reported difficulties wrestling with what "the basics" of an introductory game studies course should be. As Kirk puts it, "if you look around at the world of introductory game studies classes you'd find that while they may share publications, all of them are all over the map". There was also genuine curiosity of what other instructors were doing, what pedagogical techniques had proven valuable, and how they dealt with the challenges they faced.

Bert poses a fundamental question: "Do we really have enough research in this field that our teaching has some solid foundation?" Other fields, with hundreds of years of research, have figured out, to a certain extent, what the fundamentals are. In the case of game studies, instructors are figuring out what to borrow from fields like media studies, sociology, social psychology, etc. At the same time, so many new phenomena are emerging that, even while they're teaching, they also feel that they're doing some kind of research. Despite the challenges, teaching game studies was reported as fruitful and rewarding.

In what ways does the relative youth of the field influence the students who are learning about games?

> "*Film analysis has all kinds of references. Game analysis is a bit less clear. There are maybe two or three books that might be references but the context is still growing. You can't stand on the shoulders of giants in game research. There's missing work that hasn't been done yet and that makes it harder for the students to contextualize what they do.*" – Alvin

The field's lack of established canon can be problematic for some students, particularly those from science or engineering backgrounds. They often expect to encounter problems with clear-cut solutions. Instead, they face a field whose fundamental questions are still being explored. Diane describes how "we spend some time talking about the ludology versus narratology question and some students wonder why we bother. Like, isn't this resolved? They think that problems get solved and we move through them, and I don't know that any problems have really been solved".

> "*Game studies has been such a self-reflexive field that it further problematizes this issue. When someone writes an article about how they shouldn't write an article about something, it can be disorienting for the new student who doesn't really understand where the field is at.*" – Kirk

While engaging in a new field can be daunting for students, it also provides a unique opportunity. Bert describes how "people feel this pioneer spirit. It's not only students, but also we, as teachers, are pretty excited about being able to

go into this field and speak about games. It's very exciting to go where no one in our university has gone before". Contrary to other fields, students feel greater liberty to question and criticize what they read and learn. As students come to terms with the fact that game studies is new, they often engage in the dialectic and fluid nature of the field.

> "*They have this tremendous opportunity to play a central role. This is a ridiculously new field that's quite accessible for participation and even publication. Most of the time, in a class, you wouldn't have direct access to the top scholarship. They have that opportunity! They just have to want to do it.*" – Kirk

The state of the field, together with a positive affective relationship with games, is a determining factor in the high motivation that students often show. Charlie explains how his students are often self-motivated to "start reading a lot of essays about game studies, even if they were in English or in other languages they didn't know. Every week discovered some new authors and engaged their ideas with a lot of passion."

DISCUSSION
Where education is concerned, games can be motivating when it comes to learning [11]. However, it is dangerous to assume that learning will be easy, fun, or happen felicitously simply because the subject matter is games. Research has shown that when using commercial games for educational purposes, motivation and fun only go so far. There is a need to spend significant amounts of time becoming experienced with the game before any of the "learning" can actually start to happen [15].

Our research shows that teaching and learning about games can be challenging for multiple reasons. Often, the extensive prior experience students have with games is counter-productive to their learning goals. The medium itself also presents obstacles to access. Even the rapid evolution of the technological platforms used to play games conspires against the study of games.

Professors and instructors are actively exploring ways to overcome these difficulties. Encouraging students to keep journals of their gameplaying activities seems to help them better reflect on the nature of games as well as encourage articulation of their experiences and observations. Providing them with theoretical frameworks for the discussion of games seems to help improve the quality of game analyses as well as enrich their vocabulary. Finally, in-class game playing sessions and in-depth presentations of games can help broaden students' experience. Although these results are encouraging, further research is still necessary. For example, it is not clear how critical experience in other media, like film or literature, may transfer to understanding games. How is this sort of experience useful? How can we help students better leverage their personal videogame

experiences and help them step away from their role as "gamers" towards one of game scholars?

We also found that, due to the challenges posed by the medium, many classes make assumptions about the game experience of incoming students. Students are expected to be intimately familiar with a lot of the games they will study because there isn't enough time in class to play or analyze them. This assumption could have unintended effects on the diversity of people who could become future members of the field. Implicitly requiring incoming students to have years of experience with certain genres of games marginalizes those that don't. When it comes to learning about games, what should we take for granted and what should we not? How are our introductory courses addressing the needs of those who are curious or interested in games, but don't have fifteen years of experience playing, for example, first-person shooters? Should game scholars be required to have been previously gamers?

While we may be just beginning to explore what it means to do games research, we need to examine the issues and challenges faced by learners, both experienced with games as well as not, beginning to explore the field. In what ways are their needs addressed? What tools and skills should they acquire? What effects will these decisions have on the field? Also, how can we do this while maintaining the features that currently make working in this area so invigorating and exciting?

FUTURE WORK
This study is part of a broader research project exploring the educational and learning issues involved in studying games. We are studying how to better support students leveraging knowledge from their personal experiences to create abstract and deeper knowledge about games. Interviews with game studies instructors have helped us begin to design these tools to support their needs and those of their students. This study informed the design and implementation of two online environments currently used in games classes. GameLog, a web-based tool for writing journals of game-playing activity, is designed to help students reflect and articulate on their gameplaying experiences. The Game Ontology Wiki allows novices to collaboratively build new knowledge about games in the context of the Game Ontology Project [16]. We look forward to reporting on their use, effects, and their impact on our understanding of games, games studies, and learning in general.

ACKNOWLEDGEMENTS

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