Translating "Games and Learning" For Non-Expert Audiences: Opportunities and Challenges

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Abstract: While there are several areas of shared understanding within the GLS community about the learning value of games and other digital technologies, less attention has been paid to translating these for "non-expert" consumer audiences, such as parents and teachers. We invite attendees to participate in our discussion of how to communicate information and provide guidance about the learning value of games to "non-expert" audiences. As organizations that are serving the public from different vantage points, we provide data and real examples about how consumers understand the links between digital media and learning, especially with respect to 21st century skills. We then share some dilemmas we have grappled with while forming evaluation criteria for the learning potential of digital media products. Finally, we consider best practices for presenting products to public audiences, emphasizing the importance of not overpromising learning potential and underscoring the important role that parents or teachers can play.

Introduction

It is a testament to agreement among the academic community about the learning potential of games and other digital technology products (e.g., apps for mobile devices) that we now have both a *Digital Media and Learning* conference as well as a *Games+Learning+Society* conference, among several other forums where we gather to discuss these topics. There is a growing literature on how games can be used to positively promote learning. For example, Gee (2005, 2009) argues that many of the key principles in good games, such as promoting systems thinking and risk-taking, are also ones that are indicative of excellent learning experiences more generally. Squire (in press) discusses the potential for gaming to impact formal and informal learning spaces because games can help children develop knowledge, skills, and interests that are personally meaningful to them. Steinkuehler and Chmeil (2006) show how scientific habits of mind (e.g., informal reasoning and social knowledge construction) and not just rote memorization of scientific facts—can be fostered in popular games such as *World of Warcraft*. The National Research Council (2011) is beginning to consider how to scale up games and simulations for science learning.

Built on the premise that well-designed digital media products can engage kids and promote their learning of a variety of skills, this symposium asks how we can translate some of this research to a lay audience of consumers (parents, teachers, and potentially, kids/teens). Although this endeavor has not been at the forefront of the academic discourse, it is of prime importance (Kendall-Taylor, Lindland, & Mikaluk, 2010). Kids are engaged in a participatory culture (Jenkins, 2006) in which they consume and interact with digital media products both in and out of school. The role of adults in kids' lives is key to whether and how they interact with these products. We hope that by providing relatively rich information to consumers about the quality of digital media, we can elevate the conversation about the design of digital learning opportunities and tools and ultimately spur smart demand for high quality products.

The Need

Children/teens spend more time with digital media than they do with their parents, on average. Outside of school time, they (ages eight to 18) spend an average of seven hours and 38 minutes with entertainment media (Kaiser Family Foundation, 2010). At the same time, many adults are unsure about how to find quality content. Companies like *Zoodles*, *Kindertown*, and *SmarTots* aggregate digital media titles for parents. But these services usually provide little context about child development, learning, or co-play, and very little third-party evaluation of quality. When polled, parents actually express a strong interest in having their children develop 21st century skills (although they may not use the same terms)—through digital media and through more traditional routes as well (Common Sense Media, 2011). Twenty-first century skills are ones such as communication and collaboration that tend to cut across content areas and involve the synthesis of information nimbly and

creatively (The Partnership for 21st Century Skills, 2009; The New Media Consortium, 2005; Gardner, 2005). Twenty-first century skills are also often fostered in games (Thai et al., 2006). The same poll showed that parents are seeking engaging learning opportunities for their children, and are looking for information and guidance to help them make smart choices. Given this need for reliable information about digital media and learning, the symposium will center on opportunities and challenges involved in translating such information in public-friendly ways.

Key Questions

In our various roles, we (the authors) bring information to public audiences about the learning value of games and other technologies, or design educational games and other tools for mass markets. Based on our work in these arenas, we have identified three questions to structure our discussion of the opportunities and obstacles that arise when researching and translating information about digital media and learning to parents, teachers, and other relatively "non-expert" audiences:

1. How do parents and teachers think about digital media, and what are their attitudes about 21st century skills?
2. How do we define the "learning potential" of digital media products and what criteria should we use to make an assessment?
3. How do we communicate information about learning potential to parents and teachers without overpromising outcomes?

We will investigate the above three questions in-depth and invite symposium audience perspectives as well. Some examples of the discussion that will be associated with each one follow.

Games, Learning, and 21st Century Skills

Do parent consumers buy into the notion that games have potential to enrich their children's lives? We first present research on parents' and teachers' attitudes towards digital media and learning, "21st century skills", and family media management, based partly on results of a national online survey of 1,100 parents of children aged 2-17 and 300 teachers Pre-K to high school (Common Sense Media, 2011), such as:

- Parents and teachers are generally positive about the learning potential of digital media and seek a variety of learning benefits for their children from digital media. But, they aren't sure whether current products actually deliver on this potential.
- Parents are interested in academic learning domains (subject area competencies like math and science), as well as future-leaning cognitive skills (critical thinking, creativity), learning dispositions, and socio-emotional skills.
- Parents currently turn to familiar resources like teachers and other parents or test out products themselves, but are looking for resources to help them evaluate the learning potential of digital media.
- Teachers and digital media savvy parents (frequent and sophisticated media users, who tend to be younger, more involved in kids' media use, encourage kids' involvement in both media and non-media-related activities) are the most optimistic about digital media and their potential for learning, and most interested in resources to evaluate media.
- Parents associated video games with reasoning (41%) and, to a lesser extent, creativity (30%), curiosity (26%), and collaboration (26%).

We also discuss research from think-tanks such as the Joan Ganz Cooney Center, and primary research on 21st century skills fostered through games (Dikkers, 2009).

Defining and Assessing Learning Value of Games and Digital Media

One of the first major decisions that groups have to make when communicating about games and learning to non-experts is about terminology. We also need to determine what elements of learning hold value for parents. We discuss how formative research and market research can help shape choices in communicating about learning. We provide some examples of how we developed a vernacular to talk about learning, and how certain specialized terms (e.g., systems thinking) had to be translated into more user-friendly language.

While we discuss the importance of using a vocabulary that is familiar to non-experts, we also think it is important to educate parents or teachers about aspects of learning within media and technology that they might not yet know about. For instance, parents tend to know little about design principles in games and digital media more broadly. Likewise, they may be less familiar with 21st century skills and

more open to traditional academic subject domains. We will address questions about how to balance non-expert views of learning with more academic ones and how to assess learning value using a rubric that has to eventually be parent- and teacher-facing.

Information, Without Hype

Finally, the symposium organizers will facilitate a discussion about how to present games and other digital media products to "non-expert" audiences. Despite providing information about the learning potential of products or designing products to *be* educational or supporting the R&D of such products, the authors will underscore the importance of not over-selling learning value. Given contextual nuances and the role of surrounding ecologies in the use, appeal, and effectiveness of any learning tool, we feel it is important to convey the conditional nature of learning to non-expert audiences. We will invite symposium attendees to participate in a discussion about how to communicate this effectively and in a way that inspires trust. We will showcase some samples to spark conversation. How do we respect the complexity of learning and learners and encourage digital literacy, while also keeping in mind the reality of many parents' desires and decision-making and acknowledging their fears (e.g., displacement as a parent/teacher, fear of the technology, etc.)?

Conclusion

A major goal of this symposium is to catalyze conversation about how to communicate with parents, teachers and other relative "non-experts" about the role of games for learning in children's lives. We will present data on parents' attitudes about digital media and learning and 21st century skills, discuss the vernacular of and criteria by which to evaluate games and other digital media for learning, and facilitate discussion among the GLS community regarding best practices for communicating with lay audiences about these topics.

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