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Videogames in the Library? What Is the World Coming To?

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Sophisticated and complex learning happens through multiple forms of literacy and text types; and while schools and classrooms are slowly embracing learning through new media, libraries are rapidly and increasingly restructuring in ways that support learning through new/alternative technologies and texts. Videogame play supports learning in many complex ways, encourages positive interaction with computers, the use of imagination, problem-solving skills, and enables opportunities for collaborative engagement; these types of learning are being recognized and supported in public libraries and can be utilized more effectively in today's school libraries. This article focuses on videogames as sites of literacy, entertainment, and socialization that engage many 21st century adolescents, and suggests how school libraries, as the hub of the school community, can support learning through a range of new types of texts and modes of learning.

Life in the Western world has undergone major shifts in the past decade, most particularly for youth and children. The ways that they learn, socialize, entertain themselves, acquire knowledge, and the ways in which they think are radically different from those of earlier decades. New technologies are used daily and naturally: Bebo, Facebook, MSN, text messaging, blogging, podcasting, YouTubing (www.YouTube.com), Googling, are examples. Google, MSN, Facebook, Flickr, cell phones, Wikipedia and MMORG (Massively Multiplayer Online Roleplaying Game) videogames have, for many children and youth, replaced e-mail, television, and movies as sources of entertainment, information, and social networking for those who have grown up in the past two decades (Net Generation http://www.riverdeep.net/current/2000/10/100400_netgen.jhtml and iGeneration http://www.theglobeandmail.com/servlet/story/RTGAM.20071015.urc-technology-1016/BNStory/education/home). Although television and movies continue to attract large numbers of viewers, my research with youth suggests that these media have less appeal (Sanford & Madill, 2007a) than newer forms of media and entertainment, and email is used for school purposes but not for personal communication or entertainment. Personal websites have been replaced by blogs (http://www.blogscanada.ca/BlogDefinition.html) and Moodle platforms. Knowledge can be accessed from multiple sources in seconds, without having to leave home. Knowledge providers are networked, linking different sites and sources. Thinking is being shaped by the ways and modes of engaging with the world. And these modes of communication have certainly caught on with the Babyboomer generation (http://en.wikipedia.org/wiki/Baby_Boomers) as well.

As communication changes, literacy is also being redefined to encompass these high-speed, virtual, multiple modes of text types and ways of exchanging ideas. While books, newspapers, and magazines are still dominant forms of communication, they are being supplemented and even supplanted by more visual and interactive types of texts. As Gunther Kress (2003) comments, the "dominance of writing [is] being replaced by the dominance of the image; the dominance of the medium of the book [is shifting] to the dominance of the medium of the screen" (p. 1).

As I have interacted with children and youth in research and teaching modes, I have seen sophisticated and complex learning happening through multiple forms of literacy and text types; I have focused particularly on videogames as a form of literacy/entertainment/ socializing/learning that they spend a great deal of time engaging with. And while schools and classrooms are slowly embracing learning through new media, libraries are rapidly and increasingly restructuring in ways that support learning through new/alternative technologies and texts.

Role of Libraries

Libraries, as far back as I can remember, have been sanctities of learning–serious, almost holy places, reverential of the wisdom found in the books housed there. However, the libraries that I have recently visited have shown a new look, and have embraced a new direction and understanding of our changing society. They demonstrate clear recognition that learning happens in many ways, through many kinds of texts; users access the library because they want to learn something, and all users are capable of learning.

A recent visit to the new public library in my city showed me a new type of library. Clearly this library was embracing the tools that develop the potential of Web 2.0 (O'Reilly, 2005). At this library there is an obvious recognition of the connections between play and learning; in fact, the two are inextricably linked and this is seen clearly in the layout and the services offered at the library. There are opportunities for library users (learners of all ages) to utilize the tools that best enable their learning, visual, interactive, auditory, as well as more traditional tools and texts (books, magazines). There are opportunities to connect and collaborate–open areas for group interaction, smaller spaces for individual work/play, opportunities to connect online with learners from around the world (networking). And the connection between "work" and "play" is linked and incrementally developed.

New Conceptions of Learning – From Learning 1.0 to Learning 2.0

Through revised policies and practices, public libraries have made significant shifts from book-focused spaces I remember from my youth to interactive multi-textual spaces supporting needs of 21st century learners. Libraries have worked to regain their community position as a hub of learning, interacting, and connecting (Andersen, personal communication, 2007). They present their services in ways that demonstrate their connection with youth communities and are aware of new ways to develop literacy skills through technologies such as online books like Tumblebooks, Internet services, and videogames. There is a general understanding of library personnel that a wide range of texts appeals to youth, and that youth are highly sophisticated learners whose needs must be acknowledged and addressed. Library users are respected as

intelligent and motivated; they are not restricted by institutional rules regarding appropriateness, i.e., difficulty and acceptable content, but rather can access any materials they choose. The structure of 21st century libraries supports learning in a wide range of ways, including small group interaction, independent learning, self-paced learning, and large group interaction. There is provision for supports, by both peers and knowledgeable adults, and for scaffolding of learning (Gee, 2003). These spaces, and the recognition of the many ways that learning can happen, parallel the types of learning I have observed in videogame play.

How Does Gaming Influence Learning?

Videogame play supports learning in many complex ways. Sanford and Madill (2007a) describe the learning that takes place through videogame play:

> Players learn to interpret multiple sign systems, including maps, numbers, patterns, weapons abilities, and they learn how to communicate through online typing, reading, speaking through headsets to strangers, and listening to symbolic game sounds to help their game play. These cues and modern technological skills are becoming more necessary for various careers, and video games are aiding the learning process (p. 445).

As described elsewhere (Sanford & Madill, 2007b), gaming encourages positive interaction with computers, the use of imagination, problem-solving skills, and enables opportunities for "leadership, competition, teamwork and collaboration" with multi-player games (Jenkins, 2000, p. 120). Youth take very seriously their engagement with online communities in, for example, videogames such as Guild Wars. They feel a commitment to their other guild members, take on positions of responsibility, and work long hours to strategize in order to be successful as a team. Norton-Meier (2005) also describes the learning embedded in videogame play, commenting, "turn taking, risk taking, decision making, and even content about our world is the focus" (p. 429). Games such as Civilization and Sim City enable players to become actively involved in creating and maintaining communities and entire civilizations, learning historical information and drawing parallels to current day events. Neverwinter Nights allows players to actually create the virtual fantasy worlds that they will then play in, role playing in unique and creative situations.

The use of video games help youth to create and comprehend their own identity, learn to retry problem areas until they have mastered the area, learn while being entertained, and begin to establish understandings of other cultures (Sanford & Madill, 2007c; Gee, 2003). Wii games such as Wii Sports and Tiger Woods PGA Tour engage players in creating characters (avatars) in their own image (or any other image they choose) and then playing with their own created characters. Hours are spent playing and replaying games in order to hone skills, improve skills, and challenge both their competitors and themselves.

Contrary to popular views of videogames as passive and time-wasting, they have been seen to engage players/learners actively in the game enterprise. Players are required to constantly make decisions, problem-solve, and respond to the computer; what they do makes a difference to the outcome of the game. They are motivated to practice, develop skills, and seek out alternative ways to complete the game. In order to successfully complete a game, players must have a broad, overall understanding of the goals as well as a grasp of specific knowledge and skills. They feel in control of their own engagement and are able to make their own choices

about how and when they will act. Videogame play is challenging, but within their 'regime of competence' (Gee, 2005). Challenges are stimulating and difficult, but ultimately possible.

Not only do players engage in playing videogames, but they are also very adept at creating their own videogames, using software packages such as GameMaker and Stagecast, as well as html programming language. Both in school and out-of-school contexts, students are highly motivated to spend hours and hours on tedious programming tasks so as to be able to complete a working game that their peers might play (Sanford & Madill, in press; Madill & Sanford, in press). As they create games, students learn to adapt and apply skills learned through videogame play, and to imagine the perspective of other players. These are highly sophisticated skills that demand high levels of understanding of game play and game creation.

Research into videogame learning (Gee, 2003; Shaffer, Squire, Halverson, Gee, 2005; Squire, 2005) indicates that significant learning takes place through videogame play. Students develop a deeper understanding of semiotics, i.e., the study of signs and signifying practices) as they engage with a range of visual, print, audio, and multimodal texts required to play and create videogames. Through their engagement, they develop a sophisticated sense of design principles that underlie videogames, and become able to connect these to design principles of a range of other texts such as books, movies, and other types of games. Intertextuality, (the shaping of texts' meanings by other texts), discovery, (experimenting, active engagement), and transfer (applying, adapting, transforming earlier learning to future problems) are three learning principles evident when students describe their learning through videogames. Not only does videogame research focus on what is being learned, but also how learning is happening. Through active engagement, self-pacing, frequent specific feedback, and social/peer support, students are motivated to learn and improve their own ability, committed to completion of tasks through repeated attempts and multiple routes. Students enter the zone of proximal development (Vygotsky, 1978), or as Gee (2003) describes it, a 'regime of competence' where they begin at the outer edge of competence and gradually, as they gain skill and understanding, take a more central role in the activity. They become 'insiders' as learners, able to teach as well as learn, produce as well as consume (Sanford & Madill, in press). The learning taking place is powerful learning, and is supported in spaces that allow for fluid movement from individual to group, one text to another, support to independence.

Implications for Schools and for School Libraries

School libraries, like public libraries, are the hub of their community. People gather to engage with each other so that they can, at one and the same time, learn, socialize, and become entertained. These activities are intertwined and not easily separated, especially when learners are actively engaged and motivated to learn–learning becomes fun.

And while school libraries are somewhat different from public libraries, they need to operate for the same purposes and in the same ways to support this dynamic learning. They need to embrace new technologies and new ways of learning in order to provide support and tools that enable success for all students. In order to support the learning for all students (and teachers) in a school, school libraries need to utilize their new structures as effectively as public libraries, reconsider access and usage policies, and recognize the social and entertainment aspects of library resources as integrally intertwined with learning and knowledge aspects.

School libraries, of course, provide services to a more specific population than do public libraries, and need to protect their users in ways that differ from that of public libraries. If, however, we view all library users, regardless of age, as learners with intelligence and interest in learning, school library policies and practices need to be reconsidered. We need to consider not only what we as responsible adults view as important and interesting, but also what children and youth view as important and interesting. If we want students to actively engage in their learning, we need to pay attention to students' interests and needs. What do youth want and need to learn about and how do they want to learn it? How can we help them develop skills for a world we cannot even imagine? Several issues should be reviewed in light of the burgeoning new technologies available to people of all ages in out-of-school spaces and places, including: 1) access – what materials are made available? Why impose restrictions – what do restrictions say about how we view our youth learners?; 2) usefulness – how are we enabling youth to gain skills for their future learning lives?; 3) engagement/interaction – what do we know about learning now that we did not previously understand?; and 4) connection – between individual and social engagement/learning. Videogame research has provided new insights and understandings into all of these issues.

Conclusion

As educators and educational researchers look more closely at new technologies, we recognize that learning has become different; engagement with videogames supports new types of learning, learning that is multi-faceted, complex, non-linear, and fast-paced. Libraries are structured, in both face-to-face and on-line spaces, to support this type of learning. As we focus our attention on what is happening for videogame players, we realize that we need to better understand what and how youth are learning; in light of what youth know from engaging with videogames and other new technologies, we need to reassess resources, expectations, and activities we bring into school learning. Along with that, we must reaffirm the importance of school libraries as the hub of the school community, recognizing that they are best able to provide tools, facilities, and learning supports that utilize and build upon the knowledge and skills that students are bringing to their learning experiences. Additionally, it is critical to ensure that appropriate funds are directed to library services and up-to-date resources in order to best support student (and teacher) learning about new technologies, new literacies, and new learning.

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