

# Gender Equity and EGaming: Implications for School Libraries

Dr. Lesley Farmer  
Professor of Librarianship  
California State University, Long Beach  
USA

*Increasingly, schools and libraries are incorporating egaming because of its attraction to youth and its potential benefit for instruction, developing information literacy skills, and facilitating academic success. Although egames are played by most youth, egaming has gender-linked properties: extent of play, choice of games, social interaction in gaming, and novice gaming practice. School libraries are uniquely positioned to provide resources and services to insure gender-equitable gaming experiences: gaming periodicals, opportunities to select and review games, and single sex activities. Emerging trends of casual gaming, mobile egaming, and gaming design offer opportunities that can attract girls, which teacher librarians can leverage.*

In United States education and librarianship, egaming has become a hot topic. As active learning is encouraged, egaming with its engaging elements and possible links to academic domains has gained instructional credibility. The American Library Association now has a literacy and gaming initiative, and libraries are starting to add gaming-related resources to their collection.

Nevertheless, egaming has connoted male dominance. This stereotype is outdated as witnessed by the number of females engaged in role-playing games in particular, but also realizing that females now constitute the majority of Internet users (Magill, 2007). Teacher librarians (TLs) can help girls counter those societal messages by substituting positive attitudes and practices. TLs can encourage girls to take intellectual risks and boost their self-efficacy by offering fun, low-stress egaming environments. Specifically, TLs can provide egaming resources that resonate with girls, encourage technology use among girls, offer girls-only egaming opportunities, invite girls to talk and write about gaming, and facilitate girl egaming creation.

## Current Egaming Practice

Egaming includes a variety of digital formats: video, console, portable game devices, cell phone, and computer-based. Additionally, several genres of games exist. In their study of teen gaming, Pew Internet & American Life Project (2007) classified fourteen genres that teens play in order of preference: racing, puzzle, sports, action, adventure, rhythm, strategy, simulation, fighting, first-person shooting, role-playing, survival horror, MMOG (massively multiplayer online game), and virtual worlds.

At this point, egames have substantially penetrated U. S. households. For console games alone, 71 percent of households with boys or girls owned video consoles, and 80 percent of households with teenagers owned consoles (Nielsen, 2007). A 2007 Pew Internet study indicated that 93 percent of teens go online, and 60 percent of teens own two or more technological gadgets (number one being desktop computers, and number two being cell phones).

About a third of the most frequent console gamers and a quarter of the most computer gamers are minors (Entertainment Software Association, 2008). Back in 2001, the National Institute of Media and Family found that practically all children either played egames or knew someone who did. The Civic Engagement Research Group study on teen gaming found that 97 percent played video games, about three-quarters played weekly, and a third played at least once a day. Moreover, eighty percent play at least five genres of games (Kahne, Middaugh, & Evans, 2008).

## **Gendered Egaming Practices**

Grade school girls and boys have similar egaming behaviors. However, as girls enter adolescence their egaming drops. Teens start to explore their sexual identity, and egaming connotes masculinity, even in light of women gamers. The culture of technology remains male-dominated and mechanical (Graner Ray, 2004), so girls try to distance themselves from that stereotype, particularly since peer perception is so important to them. Another reason that girls play egames less often and for shorter periods of time is because they choose to spend their time in other ways, such as reading. In addition, they tended to have more household responsibilities than boys (Fromme, 2003).

Males and females also tend to master egames differently, with gendered behaviors and attitudes about egames tending to be expressed most strongly by non-users. Girls want games with easy navigation controls, and will quit if the learning curve is too steep or long; in contrast, males will persist through trial and error. Males tend to use manuals and ask peers for help while girls tend to struggle by themselves or ask sibling brothers for help; furthermore, girls are more likely to reset the game rather than save their efforts. Cooper and Weaver (2003) also noted that in coed settings, boys outperformed girls in playing egames, but when physically separated, girls did equally well or better than boys, particularly if the game gave personalized textual feedback; boys, on the other hand, prefer icon-based help.

## **Choice of Egames**

Girls shy away from many types of egames. Most egame motifs tend to be competitive, and many are combative, both of which stress girls. Boys, on the other hand, find such games stress relievers. Nor do girls like intense problem-solving or high-stakes risks; they would rather explore an open-ended setting (Hayes, 2005; Schott & Horrell, 2000). One aspect of gaming that bothers females in general is the appearance of the characters or avatars; fewer options are provided for female characters, and the general body image is more likely to attract teen boys than reflect the realities of teen girls' bodies (Harrison & Bond, 2007). On the other hand, girls enjoy games with nuanced characters, strong story lines, good graphical features, high collaborative interactivity, and engaging contexts. Fortunately, both sexes enjoy role-playing games (RPGs).

Because of the nature of most egames, and girls' less frequent gaming behavior, girls are likely to be disadvantaged if egames are summarily introduced into school library settings (Agosto, 2004; Hargittai & Shafer, 2006). Furthermore, according to the 2000 study of the American Association of University Women, if girls do not use computers by sixth grade, they

are likely never to pursue science or technology. Therefore, TLs need to pay attention to individual students' experiences and interests if they are to insure that egaming is to benefit the school community.

## **Games in School Libraries**

Potentially, the role of the school library can include “creating an environment that makes visitors feel welcome—and keeps them coming back” and “creating a library that serves as an alternate space—a third place—that's different than students' homes and classrooms (Kenney, 2008, 11). Nevertheless, little explicit attention has been paid to girls' participation in these gaming resources and services. Potentially, though, school libraries could provide a safe environment in which to experience egaming, particularly since a majority of TLs are female.

### *Egaming Benefits*

Egaming reveals student needs in a school setting, and girls can benefit significantly in this discussion. Youth emphasis on choice, authentic activities, mastery, and differentiation indicate a clear need to look closely at the way instruction is currently delivered and student progress is evaluated. Egaming also addresses student awareness of and affinity for information literacy skills related to collaboration, pursuit of personal interests, evaluation of information, and information sharing (Gee, 2007; Prensky, 2006). Existing egaming practices provides the library program a point of entry to engage students in leveraging their personal skills for academic success. Girl gamers can profit from this strategy because TL affirmation can validate their behaviors, which are usually not socially acceptable among their peers. Furthermore, girls who have not experienced egaming might feel more comfortable exploring this technology, and develop an interest in other technologies as well. In any case, egaming principles hold promise for *all* students.

TLs would do well to try a few egames in order to understand some of the underlying principles of egaming techniques, which largely echo Vygotsky's activity theory. As a result, instruction can incorporate some of these principles, even without using egames themselves:

- providing student choice (which topic to study)
- offering opportunities for low-pressure situations
- emphasizing the importance of memorizing and mastering basics of a concept before applying the knowledge
- collaborative work
- providing extra help for struggling students
- providing extension activities for students who excel
- evaluate effort rather than product
- using alternative and authentic assessments – designing demo games, tests based on mastery levels (not everyone takes the same tests) (Shaffer, 2006).

Fortunately, these principles resonate for girls, regardless of their attitudes about egaming. Thus, both girls and boys can excel when these instructional practices are used.

## Collection Development and Egames

Developing the library collection to include the recommended gaming resources offers another point of access for students to gain entry to the library's wider services. Girls can participate in this part of the library portal by contributing game reviews and displays. Nicholson (2007) notes that librarians may need guidance (and perhaps the guidance of patrons) to select games that will lead to a successful program, and to make sure that no students are left out, games in other formats may need to be included at gaming events such as board, trivia, card, and physical games. The Douglass Project at Rutgers (Agosto, 2008) developed the following list of criteria for evaluating websites that affirm girls' ways of knowing.

- *confidence*: encourage and support girls' abilities
- *collaboration*: facilitate working together
- *personal identification*: relate to personal life
- *contextuality*: present information in narrative or story form
- *flexibility/motility*: offer several navigational paths
- *social connectivity*: facilitate interpersonal connections
- *inclusion*: portray diverse populations
- *multimedia presence*: meld high-quality graphic, motion and audio elements.

Halverson (2005) distinguished between exogenous games (which uses technology to organize information) and endogenous games (which drives the content via the technological environment). The latter typology facilitates exploration more. Halverson also identified four learning environments for egames: learner-centered to help users to apply knowledge, assessment-centered, knowledge-centered to help users lead, and community-centered to build social skills. TLs can choose titles that address different educational goals. Many egames meld educational and recreational components (Nicholson, 2008), and it is important to note that in order to be engaging to students, games should be both fun and interactive (Amory, 1999). Particularly for girls, the egaming protocols need to be easy and intuitive so that the focus is on the content rather than on navigation through a virtual space. TLs might also consider acquiring game-creation application software.

## Social Space

School libraries can act as a portal to gaming affinity spaces, providing dedicated time for gamers to congregate around egames, to provide gaming magazines and strategy guides, to clearly publicize gaming events and resources, and to provide online access to gaming resources.

Schools may be better able to tap into students' true abilities by providing more access to their recreational affinity spaces. For example, for after-school hours, school libraries could consider providing access to online games. This approach would appeal to those teachers who might feel uncomfortable about using school time for egaming, and it would lessen the academic pressure that some girls might feel when "forced" to deal with technology protocols that distract from the content learning. Especially for girls who have less access to technology at home, providing time and equipment to enjoy egames recreationally could help them feel more comfortable with these technologies, and can bolster their social value.

Because girls value the social aspect of gaming *per se*, school libraries can optimize those elements in several ways:

- providing enough space at each computer station to allow two people to sit together
- allowing students to play games that build on social interaction, such as RPGs
- offering a online venue to play RPGs so that gamers of different ages and sexes can interact safely and anonymously
- providing a venue for reviewing egames and sharing egaming experiences.

Playing egames at school can also improve student-teacher relationships. Egames allow teachers and students to get to know each other better, and offer teachers new ways to relate to students, reminding that teachers have a kid inside them.

### *Instruction*

Instruction can intersect with egaming in a couple of ways: 1) linking personal egaming interest and skill to academics; 2) incorporating egames in learning activities; and 3) using egaming elements into instruction.

Changing current practices to accommodate gaming students requires that TLs find out how students spend their time outside of school hours and how they self-identify their literacies. For example, students may be seeking information and problem-solving within the community but may be bored at school, seeing no relevance in what or how they are being asked to learn (Alvermann, 2007). By “translating” egaming behaviors such as asking expert advice or persevering until success is achieved, into academic competences, educators are acknowledging and leveraging students’ personal expertise as it applies to their formal learning environments. As noted before, girls who communicate effectively in RPGs can use that skill in collaborative schoolwork, for instance.

Several aspects of egaming potentially resonate for girls relative to information literacy. TLs need to make sure that egames include the following attributes to help girls gain information literacy skills:

- just-in-time verbal or textual feedback when the gamer wants it
- affirmation of effort as it leads to performance and competence
- incorporation of the affective domain, particularly as it relates to personal priorities
- consideration of systems and relationships as they impact information analysis and use
- emphasis on distributed knowledge and cross-functional information-seeking teams
- acknowledgement and leveraging of multiple perspectives
- empathy of complex information systems (Association of College and Research Libraries, 2007).

For instance, TLs can leverage the interactive narrative structure found in many egames to help students create products that demonstrate competence. For example, students can be assigned a historical time event and a role within that event (e.g., American Revolution drummer boy). Students use information literacy skills to research both the war and the role, in the end creating a non-linear narrative with multiple choices that the character could make in a variety of historically accurate scenarios. Other students can then play in order to learn or contextualize the academic content. The same egame-based device can be used in language arts classrooms as a tool for exploring literacy plot changes to analyze character motivation while employing writing skills. Assessments should also be conducted to determine the extent that egaming impacts girls’ learning.

## New Egaming Avenues

The field of egaming continues to change significantly, particularly in platform and audience. The gaming industry has increased focus on developing games for mobile instruments, mainly smart phones. The platform has dictated the egame characteristics; graphics and their resolutions are largely constrained, text is minimal, and the gaming experience has tended to be complete within a half hour. Because of these limitations, the games themselves have to be interesting enough to foster repeat play; gameplay (repeatability of the experience) has regained dominance. Furthermore, controls and directions are usually simple so the player can quickly get up to speed in order to concentrate on the action. In general, industry has targeted these mobile games to casual gamers, a much greater population than serious gamers. Because girls are more likely to be casual gamers and play for a short period of time, these “micro” egames are attractive, even for beginners. Particularly as these egames are marketed for use on mobile devices such as smart phones, they leverages girls’ communication interests and active use of smart phones. Indeed, these micro egames can serve as gateway games to introduce girls to egaming, enabling them to have successful first experience so that they will be more likely to play more sophisticated or complex egames.

How TLs will respond to this new development remains to be seen. Many schools in the U. S. can cell phones. However, other handheld devices sanctioned by schools can also download these micro games, and casual games are easily found on the Internet. TLs might consider adding links to more educationally sound programs on their library portals, or creating webliographies of such games that would attract either gender. These efforts offer another opportunity for TLs to bridge school and personal life, and make the library more relevant to youth.

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### ***Biographical Notes***

Dr. Farmer coordinates the Librarianship program at CSULB, serves as IASL VP for Association Relations, and edits the IFLA School Libraries Section newsletter. Her recent books include *Your School Library* (Libraries Unlimited, 2009), *Teen Girls and Technology* (Teachers College Press, 2008). Her research interests include information literacy, collaboration, equity in library services, and educational technology.

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This statement certifies that the paper above is based upon original research undertaken by the author and that the paper was conceived and written by the author(s) alone and has not been published elsewhere. All information and ideas from others is referenced.