Chapter 5

Broadening Gaming Services in Libraries

Libraries ain't what they used to be . . . and that's a very good thing. At the college where I teach, our new librarian willingly gave up his own office (it was actually his idea) to create more community space for events like gamer nights, coffee-house style discussion groups, and trading card sessions. This trend is clearly spreading, and more librarians than ever are thinking hard about gaming and other new media and their impact on teaching, learning, and the acquisition and distribution of knowledge and information. . . . Hey, gamer, when was the last time you hugged a librarian?

—Michael Abbott[1]

With new audiences and an expanded palette of offerings for consideration, libraries can branch out in even more innovative ways to integrate gaming and game culture into their services. While gaming won't solve every issue and is not applicable in every instance (or even in every library), when the fit is right, libraries can create new connections and partnerships that benefit a wide range of users, not just the library itself.

Libraries should always be re-evaluating services for improvements or determining if they should be ended, but taking into account the pervasiveness of gaming in our culture and armed with a new understanding of its benefits, we can use gaming as one criterion for evaluating how to enhance existing services. Some libraries have already begun adding gaming aspects to traditional library programs in an effort to make them more relevant to today's patrons.

It can be difficult for nongamers to explore ways to add game culture other than by just offering open game play. Perhaps the easiest way is to update the content of existing programs to include those pieces of gaming that are relevant to the services being examined. More obvious ways include collection development of games themselves and/or books about gaming (strategy guides, etc.) and introducing programming that focuses on game culture. At the Orange County Library System in Florida, this is exactly what librarians have done, adding gaming to career education since many universities now offer degrees in game design. As Sheri Chambers notes in this case study, the library system gained new partners and expanded its outreach far beyond its own walls by adding some gaming to the mix.[2]

Case Study 6

The Orange County Library System's (OCLS) Gaming Taskforce was started in 2006 by a group of staff volunteers. When the group came together for one of their first meetings, coordinator Sheri Chambers told them she wanted "full-time" gaming. Many of them balked, saying, "No way—we can't do it," predicting that the proposed gaming pods would be too loud, that customers would complain, that it would need to be in a meeting room, and that it would be too much work for staff, especially at the branches. Chambers was surprised to hear this reaction because the majority of these staff members were gamers themselves. However, she repeated the same mantra she used with her team in other situations: "Don't tell me you can't do something. Tell me I can't do it that way, but I can do it this way," and it worked.

While the program was in beta mode, a subgroup of the task force wrote a successful grant proposal that was submitted to the videogame company Electronic Arts (EA). The well-known publisher of such popular games as *The Sims* and the Madden football series provided $15,000, which the library matched ($17,000). This allowed OCLS to take the game pod and gaming nights systemwide.

The program funded by the grant was titled "Gaming Is Life: Extreme Technology for Teens," or "ETT" for short, with the focus on helping teens make a career out of gaming. The team's goal was to do three large gaming events, monthly gaming nights at all locations, and full-time gaming pods systemwide.

They created, tested, and implemented several "game pods," mobile gaming units that could be used daily at all locations with little staff interaction. These consist of a Huffy cart, a television, hardware that limits play time to

fifteen minutes per token, and a PlayStation 2 or an Xbox 360. Patrons with juvenile library cards can check out from library staff up to two tokens per day for use with the systems during all hours the branch location is open. Through the grant, OCLS received funding for fifteen game pods and fifteen Nintendo Wiis, as well as the addition of programmatic elements such as the use of healthy *DDR* logs, a design-your-own-game-concept contest, and game review opportunities.

The Extreme Technology for Teens program lasted from April through September of 2007. In addition to providing open play at branches, staff staged three large gaming events that were extremely successful. The first two focused on how individuals in the community have turned their love of gaming into a career. For all three events, one local businessman who had created virtual driving simulators brought in his Toyota Scion that doubled as a racing simulator. Staff "hooked up" the car to a ceiling-mounted projector in the main building's "Library Central" area so that the "driver" and the audience could experience his laps around the course. This was a huge draw as patrons lined up for a chance to experience this game. For all three events, EA provided speakers to talk to the teens about what they do and what types of degrees are required for their jobs. They also focused on what areas to study in school, as well as the types of programs that are now available. For the last large event, OCLS invited digital media schools to attend and set up booths so that teens were able to speak directly to the schools and learn more about their programs.

Another major success from the EA grant was the game concept design contest, which challenged teens to design their own videogame. According to Chambers, the submissions were amazing. Some teens storyboarded visuals, while others wrote narratives that included plots and character descriptions, as well as full backstories and sequels. The entries were given to EA to select the winner, and during the final summer program of the year, entitled "Teen's Night Out," an EA representative presented the winner with a Nintendo Wii console. Due to the popularity and success of the contest, OCLS is talking with EA to continue this program for years to come.

During the six months covered by the grant, a total of 104 gaming programs were offered at OCLS's fifteen locations. Total attendance for these programs was 1,744 people, averaging more than sixteen people per program. The three large gaming events, held at the main location Downtown, saw a total attendance of 1,483 people, an average of 494 per event.

Each of the locations was provided with a portable gaming pod, containing an Xbox 360 and various games, which was made available for play during regular library hours. Juvenile card holders were able to check out two tokens per day for a maximum of 30 minutes of play time. A grand total of 19,765 tokens were checked out, which adds up to 4,941 hours of play time (over 205 days!). Four locations had more than 2,000 tokens checked out in during this time. *Dance Dance Revolution (DDR)* was played at all gaming events, and a total of 923 teens played it for a total of 8,860 minutes, or more than 147 hours. While weight and skill level vary the amount of calories each player burns, this represents approximately 29,400 calories being burned at a rate of 200 calories per hour.

Though the first ETT is over, OCLS is still moving forward with gaming efforts. Each location holds a monthly gaming night, with some offering two or more per month. Staff members continue to add to the program by tying specific games into existing programming. For example, at the end of 2007, they purchased the game *High School Musical* for the Nintendo Wii to supplement programming in the children's department. When the last book in J. K. Rowling's *Harry Potter* series was released, they purchased the *Harry Potter* game for the Wii for all of their locations, which used them in conjunction with any special Harry Potter programming they were offering.

OCLS is looking at buying Wii games for the circulating collection, and they have already begun writing another EA grant. In January 2008, the library had a booth for all ten days of Otronicon, a local gaming conference that takes place annually at the Orlando Science Center. (A very successful booth placement at Otronicon in 2007 had led to being asked to return this year for the entire event.) Chambers says this is a great venue to reach those teens who have no idea what the library can offer them:

> The biggest benefit to offering gaming has been the opportunity to connect with teens. When we went to Otronicon at the Orlando Science Center, we really weren't there just as a library. We were there to show teens that we are relevant to their world. Many of them didn't realize we had games, but that was just the beginning; they also didn't realize we had computer classes, graphic novels, battle-of-the-band programs, downloadable movies (MyLibraryDV), and so forth. It was important to show them that we have programs and materials for them. We're not just here for their research projects, etc. I think many of them believe there is nothing for them at the library, when in reality there are more things for them than ever before.

Gaming has also been a catalyst for exploring new ways to market OCLS's services. For example, it now has a messaging code for cell phones that teens can text to find out when the next gaming event will take place. It also has a special page on its Web site that highlights all of the gaming services it offers, as well as a MySpace profile specifically for gaming and a couple of videos on YouTube.

Gaming at OCLS Web page
www.ocls.info/gaming

OCLS gaming videos
www.youtube.com/ocls

Chambers reports that there haven't been any major problems, although they do occasionally get complaints from patrons, and sometimes games do go missing. Overall, though, she calls it "a very positive experience," and the staff is thrilled that OCLS's gaming initiatives are already helping to change perceptions about the library:

> One of the many outcomes of our project has been to get the positive message of gaming out to the public and to our staff. The idea that libraries are more than just books is always a hard sell for some (though with DVDs and downloadable multimedia, I think the public is starting to become more receptive). Knowing that teens are coming in to play and leaving knowing that we have a Manga club—or even just realizing we have "stuff" for them—is important to creating connections with them that will last into adulthood.

Many libraries already offer programs on career education and a collection to support career exploration, but the acceptability (and even the option) of making a career in the videogame industry is relatively recent. Providing information about new types of careers, especially ones some kids may be very passionate about, expands upon what libraries already do. In fact, the library is the ideal place for students to do this type of research, and bringing in relevant speakers may sometimes be the only way to provide this type of education in truly emerging fields.

As Susan Gibbons acknowledges in *The Academic Library and the Net Gen Student*, this type of support will be equally important in many academic libraries. "With the emergence of gaming curricula and degree programs on campuses, such as Rochester Institute of Technology's master's degree in game design and development," she notes, "library materials will be required to support this new scholarly pursuit."[3]

In addition, providing this type of outreach illustrates to patrons who are gamers that librarians understand that there is more to videogaming than just "staring at the screen." In his book *Don't Bother Me Mom—I'm Learning!*, Marc Prensky explains to parents and teachers the benefits of videogames and how to harness even "recreational" or "casual" games as learning experiences for their children. He argues persuasively that adults need to understand videogames and the culture surrounding them in order to interact with and guide children, the same way they do with books, television, movies, and other media. He ends a prescriptive chapter titled "What to Do Right Now" with the following encouragement.

> We are all incredibly fortunate to live in a time when infinite learning resources are available to our children. The key theme of this book is that our kids instinctively realize this, and gravitate to where they know the learning actually is, which currently, is mostly in their games. But it is our job as adults to gently guide them to all the learning we know they need.[4]

Librarians such as those at the Orange County Library System recognize the role they play in this mentoring process and embrace it. They offer younger patrons a wide range of knowledge and resources that now includes videogames as a recreational, educational, and professional opportunity.

This approach of integrating gaming into an existing program and validating students' interests in gaming can work at any type of library, including in school media centers. At the Pocahontas Middle School in Virginia, librarian Lauren Luke is tying gaming directly to literacy in her Virginia Readers' Choice (VRC) program.

Case Study 7

During the summer of 2007, Luke applied for and received a $1,000 grant from the Henrico Education Foundation in order to kick off the program. She immediately spent $500 of the money on a Nintendo Wii and accompanying games in order to prepare for October's national Teen Read Week. Her plan was to use gameplay (both with the Wii and with traditional board games) as incentive for reading books from the Virginia State Reading Association's "Reader's Choice" list of titles. In fact, she had a list of goals she hoped to achieve through this program:

- to attract nonreaders to the library, in the hope that they would eventually find a book they like
- to enhance the image of the library, an issue given that a recent survey had found that students considered the library "boring"
- to use innovative approaches to teaching curriculum
- to incorporate 21st-century skills and new media skills: strategic thinking, multitasking, problem solving, play, simulation, risk taking, etc.
- to increase participation in the VRC program

Virginia Readers' Choice Reading Lists
www.vsra.org/VRCindex.html

She began with monthly "gaming days" in the library, allowing students who joined the VRC club and read one of the books from the list to play with the Wii during study hall. In addition, chess and checkers were available throughout the day, with students often checking them out for use during homeroom and lunch and after school. Students could continue playing with the games through March if they read three additional titles. The periodic gaming events are designed to help students pace themselves to have enough time to read the four titles.

In just three months, Luke saw a dramatic increase in the number of students participating in the VRC program. In 2006, twenty-five students participated; one year later, that number almost doubled to forty-nine, with time to add more before the end of the program in March 2008.

Luke also met her goal to make the library a "cool" place, to the point where she had to establish procedures in order to manage the number of students who want to play chess during study hall. "There were times when it seemed that the entire student body was in the library to play chess," she explains. "We've started drawing names for chess players during this time. At no other time during the day do we have to draw names."

It's not surprising that student response has been positive, although it was less expected that faculty would embrace the program. While most of the teachers still seem to view the games as incentive, rather than as instructional tools they can incorporate into their classrooms, overall the faculty has been supportive, as has the school's administration. In fact, Luke notes:

> My principal signed the grant application. He is open to the idea of gaming and likes innovation. He also supported the idea of a teacher test group. These are teachers who are willing to help me "research" the games in advance and find curriculum content before we purchase them for the library. My principal said that he will reimburse the teachers for the rental fees of the games. At a faculty meeting, he spoke highly of the library and its success in receiving the grant. He even came over and played the Wii in the library!

How else can you motivate faculty? By letting them play with the Wii, too, of course.

> I do allow teachers to check out the Wii on weekends, and I stress that it is a hot item and is difficult to locate in stores. Teachers are aware that if anything happened to it, they would be responsible for replacing it. In addition, those teachers who check out the Wii are asked to promote it to other teachers, review the game, or offer ideas on how to use it in their classroom. Taking home the Wii allows teachers the opportunity to feel comfortable playing with it before using it in instruction. I have also called on these teachers to assist in gaming events.

In the future, Luke plans to create a gaming blog where she hopes teachers will add comments and share information about how they are using games in the classroom. As incentive for the adults, she may offer prizes for teachers who post blog entries. She is also in the process of developing lessons that incorporate videogames in order to share them with curriculum departments. To help manage the growing program, she is recruiting a Student Advisory Group that will meet after school. These volunteers will provide additional help during the planned videogame tournament, scheduled for National Library Week.

Although Pocahontas Middle School students are an affluent group, Luke's efforts to secure the grant prove that this type of reading incentive program using gaming could be implemented at schools with less funding. For those school media specialists looking to replicate this type of initiative, Luke offers the following advice:

> If you are a school librarian, visit the website DonorsChooose.org to seek funding for your project idea. Ask students to bring in their own game consoles or board games for a special event. Partner with the public library and plan programs for your same customers. Ask students to create their own games for others to play. Look for community members or business professionals to come in and talk about design and industries that use simulations for training.

Figure 5
Members of the VRC Reading Club playing chess in the Pocahontas Middle School Library.

DonorsChoose.org
http://donorschoose.org

The efforts of school and academic librarians are wonderful examples of how games of all types can be used to enrich and complement existing methods. The goal is not to replace instructors or librarians, but rather to update teaching methods and engage students more directly by using other media in which they are already engaged.

In an April 2007 article titled "Games for Teaching Information Literacy Skills," University of Notre Dame librarian Felicia Smith recounts how she implemented the use of such simple gaming activities as crossword puzzles and word searches in an effort to integrate "active learning techniques" to "reduce student boredom and keep students engaged in information literacy classes."

> There is ample evidence that lectures are ineffective, especially for the new generation of learners. The antiquated "stand-and-deliver, you-will-listen-to-me" approach is not very effective (Manuel, 2002). A mere five percent of lecture material is retained as opposed to fifty percent retention for group discussions. . . .
>
> Crossword puzzles are one example of an activity used to reinforce lecture content and increase student participation in a creative way. The Crossfire Crossword puzzle reiterated the unique Boolean Operators: Near, Next, and Proximity, used to search the Crossfire database (see Figure 1). Similarly, Copyright Tic Tac Toe emphasizes issues surrounding copyright infringement and academic integrity which are covered in the class lecture material (see Figure 2). . . .
>
> Web of Science Word Find is another activity that simulates the thought process required to conduct Cited Authors searches in Web of Science (see Figure 4). This activity requires students to find different spellings of an author's surname in the grid as well as in the database. The Word Find example demonstrates how some spellings of the surname can retrieve zero results while other spellings retrieve nineteen. . . .
>
> Another challenge is to make the games integral to the learning objectives. The key is to think EDU-tainment as opposed to ENTERtainment. Academic scholars claim that playing games is good for literacy, problem-solving, and researching. Searching is like a mental game. Playing games and conducting research share characteristics. Both require considerable skill and repetition. Both require dedication and practice. Both have goals that are obtainable through a series of steps. And both can be simultaneously entertaining and rewarding. . . .
>
> After the semester ended, results from one hundred First Year Studies evaluations were tabulated:
>
> - 86% of students agreed the activities were engaging and were not distracting.
> - 95% agreed the activities were preferable to a lecture-only format.
>
> Active learning techniques are important pedagogic innovations (Bickman, 2003). The activities used in this Chemical Information Research Skills course can be adapted for general classes (Scholes, 2002). These activities were derived directly from lecture material and hands-on exercises to augment but not replace class lectures or hands-on exercises. The activities reinforced search strategy techniques required for different databases. Clear objectives were expressed, tested and achieved. The activities are purposefully simple. Great care was taken to ensure that the activities themselves were neither time-consuming, nor distracting. . . .
>
> The main advantage of these activities was their ability to keep students interested in the lessons. Student feedback shows there is intrinsic value in simply taking a break from the monotony of a lecture format. As a reflective practitioner, I observed the student's non-verbal and verbal responses to each activity. The students' body language consistently indicated a high interest level. In addition, the students' class participation showed increased involvement.[6]

While some traditionalists and critics argue that videogames are responsible for the short attention spans of today's youth and that instructors should not pander to the whims of generational tastes, Smith's efforts illustrate that updating how we teach information literacy can combine the best of both worlds and benefit those who need it the most—our patrons.

In my talks about gaming in libraries, I have begun walking the audience through different types of games to try to help them determine where they draw the line between "educational" games and "recreational" games. Usually the majority of the participants agree that *Candy Land, Scrabble,* and even *Pokemon* are educational and involve reading and literacies important to youth development. However, as we progress, fewer people express the opinion that videogames involve these same literacies. Why are board games automatically acceptable to us, but electronic games or videogames are less so? Is it because

we may not have grown up with videogames? Or perhaps, as noted in the first chapter, it's because we possess a frame of reference for board games in libraries that we don't yet have for electronic games.

Like a growing number of colleagues, the librarians at the Fletcher Library on Arizona State University's West Campus wanted to explore the use of videogames for information literacy instruction. Their plans were ambitious, more than even they first realized. What's interesting about their initiative, however, is the way in which they proposed a strategy, probed the environment, and then adjusted their plan in order to achieve success. This type of trial-and-error approach embodies the gamer "ethos" and is a defining characteristic of how gamers interact with information. For them, there is no one right answer, so there is no one path to reaching the goal. Instead, there is a "best" answer that possibly has multiple paths to finding it. In fact, we might even call this the "triangulation" of the answer. As the ASU librarians found out firsthand, sometimes the journey is as important as where you end up.[7]

Case Study 8

When the Lower Division Instruction Program was created, one of Bee Gallegos's goals as program coordinator was to energize the instruction making it more interactive and engaging than the lecture methods used previously. Much of 2004 was devoted to developing instructional tools designed to be interactive and take advantage of the skills and interests students had in technology.

For several years, a paper library tour exercise had been used, but it was unpopular with students because it was too much like busywork and it was cumbersome for librarians to grade. In addition, it was doubtful that students were learning what the librarians wanted them to learn. Gallegos indicated to the team that she wanted to find an alternative instructional tool that would be online, engage students, and allow them to learn the same basic information as they built skills. Prior to this assignment, she had worked with education students as they incorporated interactive multimedia into their lesson plans. From this experience and her personal interactions with teenage students, she knew that they learned best from online instruction when it was fun, students discovered on their own, and it was visual and interactive. If the team was to get and keep student attention, a different approach was needed.

At the same time in 2004, Marisa Duarte and Tammy Allgood were playing a lot of MMORPG games such as *World of Warcraft*. Applications like *Second Life* were just beginning to blossom. Discussions led by Marisa about the learning styles of Millennial students sparked discourse about using gaming to teach library skills. Duarte and Gallegos started doing research on educational gaming while Allgood looked into the technical side of Flash game programming. Allgood and Duarte also attended the Games, Learning, and Society Conference in Madison, Wisconsin, in 2005, which turned them into true believers.

Gallegos, Duarte, and Allgood added library specialists Karen Grondin and Aaron Rostad to the team and first submitted a proposal for internal research funding for a virtual reality game to use for library instruction in January 2005. As they discussed it, however, they decided it was a bit ambitious to start with, so they decided to begin with a board game as a prototype for an online game that would be developed by summer of 2006. Development of the first version of the board game began in August, and *Information Pursuit* was used in class for the first time on September 16, 2005. The game underwent several revisions during the 2005–2006 academic year, with the changes consisting primarily of the board's graphics, some rule changes to incorporate more chance, and the addition and revision of questions.

The game consists of a board, question cards, a "Wheel of Fate" spinner, a die, and pawns. While this sounds like a very large undertaking, it turns out that staff time is the biggest investment (as with most endeavors), with the physical board game itself costing less than $1,000 total. Aaron Rostad spent more than 80 hours using PhotoShop software to develop the board and spinner graphics, which were sent to the campus Copy Center for printing and lamination. The dice were special-ordered through a game company, Flying Buffalo Inc. Two different designs, as well as replacements cost a total of about $100–150. The cards currently used for the questions are Avery business-style cards that the library had or could order from a business supply company. The remaining items, such as the 5-inch spinner boards, the spinners, pawns, and the game boards, were ordered from a game design company located through a Google search. The biggest expense was the game boards, which cost about $15 each or $148 for a set of 10.

To play, students roll the die to determine how many spaces to move. They then answer multiple-choice questions when they land on specific squares on the game board. If they answer the question correctly, they get to take another turn. If they answer incorrectly, they have to stay on the space until their next turn and attempt to answer another question correctly. If the player lands on a "bookworm hole" space, they jump forward on the board to the bookworm hole exit. If players roll a symbol (which replaces the number 1 on the die), they spin the "Wheel of Fate," which may either help or hinder them by causing them to move forward on the board or possibly lose a turn. The first group of players to make it to the end of the path is the winner.

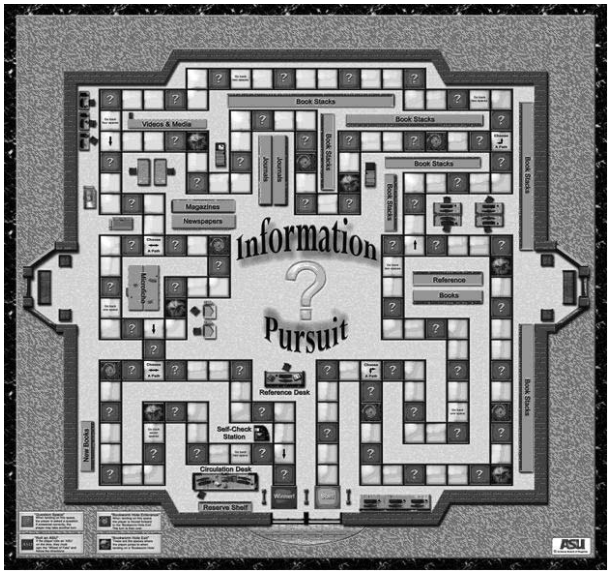

Figure 6
Information Pursuit board game created by librarians at Arizona State University's Fletcher Library.

The team wanted to embed assessment into the game, but they didn't have the budget to add that, nor did they have enough assessment experience to know how best to do it. Their research showed that building in assessment was a recognized need for educational games but that no one had blazed a trail they could follow. Instead, they created pre- and posttests in SurveyMonkey to measure learning.

Information Pursuit is used in one of the first-year English composition classes, Writing Across the Curriculum (WAC 101), as a tool to introduce students to the ASU Libraries and in particular to the Fletcher Library. During a typical class session, the librarians begin by spending approximately fifteen to twenty minutes introducing students to the library's Web site, including a demonstration of searching the online catalog and Academic Search Premier. Following the short lecture, the class is divided into groups of four or five students. Each group is further divided into teams of two (or one with three if there are five players) and given a copy of the board game. Typically, they use four or five boards with each class. With two teams playing on each board, they compete against each other to win the game. There is sufficient time in class for each group of teams to complete the game. Students play the game in their classroom. Since it is a fun, relaxed atmosphere during gameplay, some students choose to sit on the floor rather than at the tables or desks.

So how did the students respond?

In some classes, teams finishing the game have decided to play it a second time. It often gets very competitive with students thoroughly engaged in gameplay. Some students were skeptical and even a little negative when they heard they were going to play a board game. Several thought it was childish, but some of the ones who were most reluctant to play were also the ones who were most engaged in gameplay. In the beginning, a few faculty members were also skeptical about the value of the board game, but all were open to trying a different approach because librarians have a great reputation on the ASU-West campus. Some instructors played the game and were as engaged as their students, which was a bit of a surprise. After seeing how their students reacted to the game, instructors supported it enthusiastically. The librarians have a long tradition of innovation and change, as evidenced by the fact that library administration was supportive from the beginning when the team first suggested developing a game.

Eventually, however, the team realized that using the board game's content for an online game wasn't feasible after all. What they thought would be used on an interim basis actually was very popular and sparked interest from librarians at conferences. As a result, their new plan is to publish the board game for other libraries to purchase and use in their own instruction sessions. With development of the online game, they now have two different and distinct games that can be used in the classroom. When asked what they would have done differently in hindsight, team members answered, "If we had known that our board game would not transfer easily to the online game, we might have skipped that step. If we had, we would not have created this terrific tool!"

Fletcher Library Game Project
www.west.asu.edu/libcontrib/game/website

Games, Learning, and Society conferences, including archived content
http://glsconference.org

Expanding on the theme of incorporating active learning techniques into instruction, Susan Gibbons devotes an entire chapter of *The Academic Library and the Net Gen Student* to online gaming. While Gibbons focuses her arguments around the social characteristics of Massive

Multiplayer Online Role-Playing Games (MMORPGs), her points can be extrapolated and applied to other forms of gaming. She notes that "learning can be much more effective when the learner has the opportunity to experiment, practice, and apply the newly acquired understanding immediately. . . . [A] well-designed video or online game is actually an opportunity for players to internalize the process of scientific inquiry."[8] This can also hold true for activities nongamers don't normally think of as gaming. Smith illustrates how such techniques can be integrated into instructional sessions to engage learners in the process Gibbons describes.

What other forms of mainstream gaming can be integrated into our curricula? How else can we harness the learning students have already adapted to elsewhere? Paul Waelchli, author of the excellent gaming-in-libraries blog Research Quest, asked in an April 2007 post, "But couldn't we go further (and wouldn't it be a little easier too)?"[9] After much brainstorming and discussion with his colleagues at the University of Dubuque (Iowa), Waelchli implemented a plan (literally, lesson plans) to prove that the answer to his question is yes.

Research Quest
http://researchquest.blogspot.com

Case Study 9
by Paul Waelchli

The attention given to games over the last few years is an excellent example of libraries leading the way of innovation in communities, schools, and campuses. That innovation should not stop with just getting people in the doors to play card games, board games, or videogames. For school and academic libraries, games create educational opportunities as well. Game players are not thinking about their games in terms of finding, evaluating, and using information, but this is exactly what the games require them to do. Students playing games of all kinds are developing their academic skills by exercising critical thinking and information literacy (IL). Librarians are uniquely placed to build on these gameplay experiences that students and patrons already have and help create a bridge between their game success and their academic success. Librarians can build this connection through discussions and sessions that use gameplay experiences as a metaphor for their academic experience. Librarians can incorporate the strategies that games use to engage and motivate players for instruction, creating unique and meaningful experiences for students. The University of Dubuque library has incorporated game strategies into the information literacy program and witnessed firsthand the value that games provide.

What Is That Value?

Regardless of whether the games are social, Web-based versions or graphics-intensive console videogames or whether battling with collectible cards or in a head-to-head fantasy sports match-up, information literacy skills are applied. Librarians can use the skills employed in games to make IL more relevant and meaningful in students' lives as well as to make their academic success more achievable. The library's interaction with games is expanding, stretching out beyond traditional board games and videogames to include fantasy sports. According to a 2007 survey by the Fantasy Sports Trade Association, fantasy sports, like baseball and football, are played by more than 18 million Americans.[10] All of these players are using information literacy on a regular basis. Regardless of the sport, every fantasy league requires research on a large number of statistics, trends, and match-ups. In addition to game and season statistics, a fantasy sports player considers offensive and defensive position match-ups, injuries, rivalries, and weather when researching to make game decisions. The way fantasy sports players use information creates the building blocks on which librarians can develop and advance IL skills. The successful fantasy sport player consistently applies four of the five Information Literacy Competency Standards from the Association of College & Research Libraries (ACRL):

- defining and articulating the need for information
- accessing information effectively
- evaluating information critically
- understanding some of the legal and economic issues around information[11]

Fantasy Sports Trade Association
www.fsta.org

Fantasy players reflect on past success and failure, identify need, search multiple sources using a variety of strategies, evaluate the information found, and communicate results throughout a fantasy season. Librarians have the potential to connect these existing skills to academic content to help students become more successful, information-literate individuals.

While fantasy sports stretch the definition of what libraries consider as games, traditional videogames are also a valuable tool in helping patrons and students acquire valuable information skills. Playing most videogames

Figure 7
Paul Waelchli blogs about information literacy skills in fantasy football.

involves some use of locating information, determining the value of that information, and applying it to achieve success. The layout of a map and the opponents' position and weapon in *Halo 3* (Xbox 360) require the player to process and evaluate the information quickly and move offensively or defensively in order to stay alive. *The Legend of Zelda: Phantom Hourglass* (Nintendo DS) provides the player with multiple characters and pieces of a puzzle; the player needs to decide which information is accurate and apply the correct information to solve the puzzle and move forward in the quest.

Videogames model many of the stages students experience during the research process: search, evaluation, application, failure, frustration, revision, success. Even though games have not been considered tools for this, they help develop basic information literacy.

While the skills that videogames provide are an excellent example of the research process, they are more than just metaphors. There is a large and growing body of research on game-based learning and videogames in education, upon which some academic libraries are developing games. Other researchers have focused on the educational theory and strategies that make videogames successful and engaging. James Paul Gee in his 2003 work *What Video Games Have to Teach Us about Learning and Literacy* identified 36 learning principles incorporated in videogames.[12] Gee addressed many of these principles in his keynote address during the 2007 Gaming, Learning, & Libraries Symposium. These principles include well-ordered problems, "just in time" information, cycles of challenges, challenges just beyond the comfort level, situated meaning, and lower consequences for failure. In addition to Gee's work on videogames and learning, the Federation of American Scientists (FAS) released a report in 2006 that listed specific educational strategies that are incorporated in videogames. Applied individually, videogame strategies are not unique, and they parallel traditional educational strategies. Videogames work at an engaging and educational level because they incorporate all these strategies within a single experience.

Audio of James Paul Gee's Keynote from GLLS2007
www.techsource.ala.org/blog/2007/08/audio-of-james-paul-gees-keynote-from-glls2007.html

FAS Summit on Educational Games: Summit Findings
http://fas.org/gamesummit

Information Literacy with Gaming Strategies

Libraries do not need to create their own games to see the educational benefits. The educational strategies identified by Gee and the FAS provide a structure that any library can apply to its information literacy program to gain the engaging and motivating benefits of videogames with limited investments of time and money.

At the University of Dubuque, we started applying videogame strategies in our information literacy program during the fall of 2006. This allowed us to start small and see measurable benefits because the lessons did not simply target one or two of the strategies, but incorporated many of them at once and allowed students to apply them together.

One instruction session contained an open-ended Web site evaluation for an "Introduction to Music" course. The lesson contained the videogame strategies of personalization, contextual bridging, "just-in-time" information, cycles of challenges, and clear learning goals. While it incorporated videogame strategies, the objectives of the lesson were still focused on ACRL's information literacy standards. The student groups knew the overall research goals and had freedom to personalize the search process. They were required to keep a brief log of their search and were told to be prepared to share the results with the class.

The students struggled the first time with this lesson, and their responses ranged from, "You want what?" to "What are we doing?" Lacking a specific path for their assignment, the students floundered without a clear direction. Fortunately, videogame strategies emphasize taking risks and being willing to fail. The second time the lesson was taught, more explanation was provided. The adjustment was successful, and students responded positively with comments like, "I get it, and I like not being told what to do."

A resource review for a research and writing course was a second type of lesson to incorporate videogame strategies. The lesson applied the techniques of encouraging inquiry, open-ended exploration, context bridging, scaffolding, and personalization. The students were grouped and given a research question that asked them to find a source within the given category. They worked to reach a specific goal in order to complete the challenge as quickly as possible. The framework not only allowed the students the confidence to jump in and get started, it also created more buy-in and motivation for the overall activity. The videogame strategies applied were effective for engaging the students in discussion about why they took the search path they did.

The librarians taught eight sessions during the fall of 2006 and eleven during the spring of 2007. Evaluations showed the vast majority of students felt the content was valuable and enjoyed the way the class was designed. One student commented, "It was good to get everybody on the same page." Another wrote, "I found the activity to be helpful in showing the various ways to access articles, but more importantly, it got everyone involved which is FAR AND AWAY [student emphasis] more interesting than being lectured to."

After successful open-ended information literacy sessions applying videogame strategies, the librarians at the University of Dubuque experimented with a multiple-path "point-and-click adventure" using the student response system Turning Point and PowerPoint for an upper-division Communication course. The assignment served as a review of the research process and various library resources. Choices were hyperlinked within PowerPoint so that any decision the students made moved down the corresponding path. The students stayed engaged in voting, reacting to the results, and discussing the choices. Much of the class discussion was peer-led, where the students engaged each other and debated about which path to choose. Students responded to the lesson by saying, "I did like how you gave us an option for going our own paths" and "I thought the voting was great." One student commented that, "It was a lot more fun being able to first handily interact with the research."

The librarians at the University of Dubuque continued to apply gaming strategies during the fall of 2007. Fantasy football research sessions were successfully taught to incoming student athletes connecting fantasy sports research to academic research and information literacy. Each lesson ultimately was successful, but not without challenges and struggles along the way. The challenges and even failures were acceptable and part of the application of videogame strategies. Rarely does a videogame player successfully complete a new challenge on the first attempt. Librarians willing to take risks, fail, adapt, and succeed in the application of game strategies can see similar results in increased engagement, motivation, and comprehension.

Although Waelchli was already well on his way to implementing gaming techniques in his instruction sessions, his work answers the challenge set forth by Susan Gibbons at the close of her chapter on online gaming:

> Academic libraries cannot afford to ignore the growing interest in online gaming. . . . Inside well-designed games rests great learning potential. As more educational games are developed and the acceptance of computer games as a teaching tool increases, academic libraries will feel increased pressure to find ways to support the medium. Why not get a head start right now?[13]

Talking Points

- Libraries are offering more traditional *and* more innovative services that support and integrate gaming, including career education and information literacy instruction.
- Because games of all types involve reading and critical-thinking skills, libraries are exploring ways to use them to teach reading, information, and media literacies.
- Many videogames require the same types of information strategies and techniques that librarians teach in their information literacy classes, including reevaluating the nature and extent of the information need, accessing needed information effectively and efficiently, constructing and implementing effectively designed search strategies, articulating knowledge and skills transferred from prior experiences, and reflecting on past successes, failures and alternative strategies.

"ACRL Info Lit Outcomes for Fantasy Football Class"
http://researchquest.blogspot.com/2007/08/acrl-info-lit-outcomes-for-fantasy.html

"Fantasy Football Lesson Plan"
http://researchquest.blogspot.com/2007/08/fantasy-football-lesson-plan.html

"Halo & Information Literacy: Mapped to ACRL Standards"
http://researchquest.blogspot.com/2007/09/halo-information-literacy-mapped-to.html

"Carvers Bay (SC) Branch Library: Gaming the Way to Literacy (August 2006)"
www.webjunction.org/do/DisplayContent?id=13796

Wilmette Public Library Video Game Design and Gaming Events
www.wilmette.lib.il.us/kids/events/gaming.php

Carnegie Mellon Libraries' Library Arcade
www.library.cmu.edu/Libraries/etc/

Notes

1. Michael Abbott, "Librarians Gone Wild: Video Games with No Shushing," The Brainy Gamer blog, Oct, 28, 2007, www.brainygamer.com/the_brainy_gamer/2007/10/librarians-gone.html (accessed Jan. 14, 2008).
2. Case study synthesized from an e-mail interview by the author with Sheri Chambers on Dec. 14, 2007.
3. Susan Gibbons, *The Academic Library and the Net Gen Student* (Chicago: American Library Association, 2007), 38.
4. Marc Prensky, *Don't Bother Me Mom—I'm Learning!* (St. Paul: Paragon House, 2006), 215.
5. Case study synthesized from an e-mail interview by the author with Lauren Luke on Dec. 12, 2007.
6. Felicia A. Smith. "Games for Teaching Information Literacy Skills," *Library Philosophy and Practice* (April 2007), www.webpages.uidaho.edu/%7Embolin/f-smith.pdf (accessed Jan. 14, 2008).
7. Case study synthesized from an e-mail interview by the author with Arizona State University librarians Tammy Allgood, Marisa Duarte, Bee Gallegos. Karen Grondin, and Aaron Rostad on Dec. 13, 2007.
8. Gibbons, 30.
9. Paul Waelchli, "Gaming at the Heart of Learning," Research Quest blog, April 3, 2007, http://researchquest.blogspot.com/2007/04/gaming-at-heart-of-learning.html (accessed Jan. 14, 2008).
10. "Fantasy Sports Conference Demographic Survey Shows Continued Growth," Aug. 2, 2007, press release on the Fantasy Sports Trade Association Web site, http://www.fsta.org/news/pressreleases/PRWeb-FantasySportsConference0807.pdf (accessed Jan. 22, 2008).
11. Association of College and Research Libraries, *Information Literacy Competency Standards for Higher Education,* (Chicago: American Library Association, 2000), 2–3; available online at http://www.ala.org/ala/acrl/acrlstandards/standards.pdf (accessed Jan. 22, 2008).
12. James Paul Gee, *What Video Games Have to Teach Us about Learning and Literacy,* 2nd ed. (New York: Palgrave Macmillan, 2007).
13. Gibbons, 42.