Nicholson, S. (Forthcoming). Go Back to Start: Gathering Baseline Data about Gaming in Libraries. *Library Review*. Preprint available at http://librarygamelab.org/backtostart.pdf

Go Back to Start: Gathering Baseline Data about Gaming in Libraries[1]

By: Scott Nicholson, Associate Professor, Library Game Lab of Syracuse at the Syracuse University School of Information Studiessrnichol@syr.edu

Introduction

Over the last few years, there has been an increasing focus on libraries hosting gaming programs. Publicity about video games like *Dance Dance Revolution* and *Guitar Hero* as a way of bringing in groups of teenagers and young adults is a common sight. Jenny Levine, a.k.a. The Shifted Librarian, wrote an American Library Association publication highlighting different types of video gaming activities in libraries (Levine, 2006,) and other librarians have written about their experiences in print and online (Neiburger, 2007; Schmidt, 2006; Gallaway, Schwarzwalder, Czarnecki, 2007). Gaming is rapidly growing into the next new media as sales of games have outpaced box office sales and are predicted to grow beyond music sales in the near future (Alpert, 2007; Cheng, 2007). Just as libraries have caused controversy in the past by adding fiction to their offerings and circulating recreational videos, libraries are creating controversy today by supporting gaming through in-house gaming activities and circulation of gaming materials.

Public libraries have supported gaming for a long time. In fact, British libraries in the 1800's had gaming rooms as a way to lure patrons away from the public houses (Snape, 1992). The gaming rooms provided a safe environment that allowed people to engage in games with each other. Most public libraries have classic games like chess, checkers, backgammon, or Scrabble, and many host regular clubs that play card games like Bridge or traditional games like Chess or Go. Games are also a regular feature at many children's library programs. The act of gaming in libraries is not new, but the type of games used is changing to meet the times.

In order to better understand gaming in libraries, we did two surveys in 2007. In the first survey, we called a randomly selected group of public libraries to establish baseline data about the use of gaming in library services. In the second survey, we put out a call for libraries to tell us about gaming programs that they ran in 2006. The results of both surveys are presented in this article.

Survey #1: Gaming in Public Libraries

[1] Some of this article originally appeared as a Web-published white paper as Nicholson, S. (2007). The Role of Gaming in Libraries: Taking the Pulse. White paper available at http://librarygamelab.org/pulse2007.pdf

In order to take the pulse of the role of gaming in libraries, I worked with Syracuse University Library and Information Science students Valerie Sallis, Charles Bush, and Kathryn Mary Buturla to develop and carry out a phone survey of U.S. public libraries. Four hundred libraries were selected at random from over 9200 public libraries listed through the Library Statistics Program, part of the National Center for Education Statistics (NCES, 2007). The research team called the selected libraries in April and May of 2007 and asked a series of questions about how libraries support gaming, considered broadly, including games of all types from board and card to Web-based and video games.

After multiple tries, we were able to contact all but 18 of the libraries, giving us a response rate of 95.5%. In order to maintain the integrity of the sampling method, we kept these 18 libraries in the data analysis and assumed that they did not support gaming activities in any way. After examining the available data on these libraries, we determined that most were small libraries with very limited staff and hours, so this assumption is most likely an accurate assumption. One library refused to participate, so it was also placed in this non-responder category. The results presented below may be conservative because of this assumption.

The margin of error for these results is +/- 5%, with a p-value of .05. While this is a fairly large window, it will still allow us to understand more about the population based upon this sample.

Description of Sample

The sample of 400 libraries was a purely random sample, and therefore it represents the makeup of the population. There are many more small libraries, as determined by population served, than there are large libraries; therefore, our sample contains many more small libraries than other types. Table 1 contains a breakdown of the sampled libraries by size, based upon the population served. Seventeen of the non-respondents were small (1-3000) and the last was large (50000+).

Table 1: Size of Libraries in Sample

Population served by Library	**Number**
a. 1 - 3000	112
b. 3001 - 10000	121
c. 10001 - 50000	106
d. 50000 +	43
Non-Respondents	18
Grand Total	400

Results

The most important question in this survey was the first one – does the library support gaming? We asked the library to consider gaming in a broad sense, including anything from hosting the local chess club to allowing patrons to play Web-based games to circulating tabletop or digital games to providing resources for patrons to create their own games. The result is that most U.S. public libraries support gaming. In fact, 77% of the public libraries surveyed supported gaming in some way. Even taking the +/-5% margin of error into account, we are comfortable saying that at least 7 out of 10 public libraries support gaming.

This is a higher portion than many might expect. There are two types of common gaming that came out in discussion with libraries. For decades, public libraries have supported gaming by providing chess sets and other games in the children's area. A more recent type of game enjoyed by patrons in libraries is Web-based games. The contrast between these gaming types suggests the importance of taking a holistic view of gaming, including both traditional and digital forms of games.

The size of the library does make a difference; as Table 2 demonstrates, larger libraries are more likely to support gaming than smaller libraries. Due to the +/-5% margin of error, we cannot say that it is a significant difference, but it certainly merits further study with a larger sample.

Table 2: Libraries that Support Gaming by Size

Library Size	**Supports Gaming**
a. 1 - 3000	76%
b. 3001 - 10000	77%
c. 10001 - 50000	87%
d. 50000 +	88%

Gaming Programs

We then moved on to ask about formal programs where the library facilitated gaming activities. Forty-three percent of public libraries hosted gaming programs where patrons played games in the library. Again, there is a difference based upon the size of the library, as seen in Table 3.

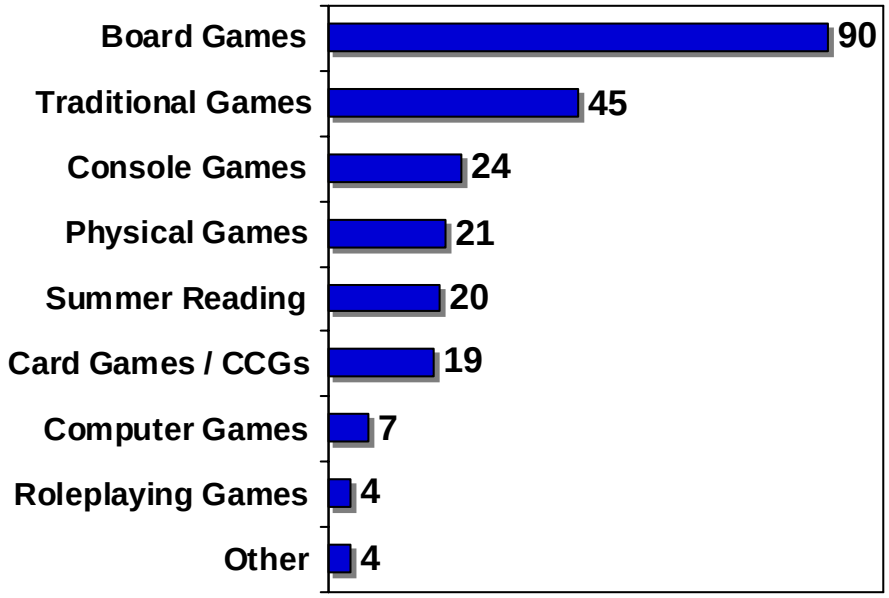
Table 3: Libraries that run Gaming Programs by Size

Library Size	**Runs Gaming Programs**
a. 1 - 3000	38%
b. 3001 - 10000	39%
c. 10001 - 50000	50%

d. 50000 +	67%

We then followed up to learn what activities were done during these formal programs. The data from this question is in Figure 1; libraries were allowed to provide more than one answer to this question. Out of 172 libraries that run formal programs, about half of them said they use "board games" in those programs; 45 libraries named a specific traditional game such as Chess, Bridge, or Go. Only about 13% of libraries use console games (like Nintendo or Xbox) for their gaming programs.

Figure 1: Types of Games used in Formal Programs



This finding provides evidence for the need for those looking at gaming in libraries to consider more than just console games for gaming programs. While the popular console games have their role as a gaming offering, they need to be placed in context with other forms of games that the libraries have traditionally offered. In addition, communities resistant to the introduction of video games in libraries may find it easier to accept it if these activities are placed in context with other activities already supported in the library.

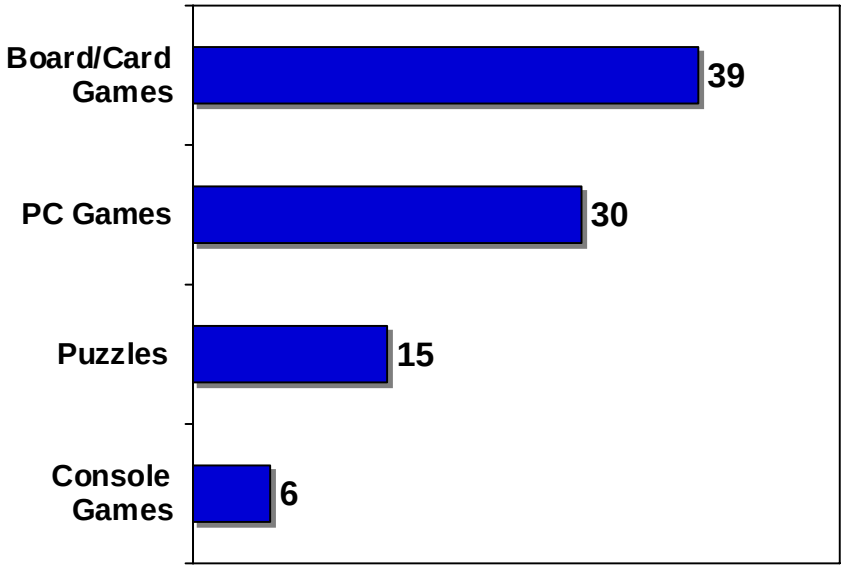
Circulation of Games

Our next area of inquiry focused on whether the library circulated games, and, if so, what type of games were circulated. We found that a small portion, only 20%, of surveyed libraries circulated games. The size of the library did not play a significant role in this case. I would hypothesize that the size of the circulated collection would be proportional to the size of the library's collection.

Board and card games were also the most common type of game circulated, as seen in Figure 2. Given the popularity of console games, I hypothesize that the number of libraries circulating console games will rise in the future. In addition, as companies like

Overdrive allow libraries to circulate downloadable computer games electronically, the need to carry physical media for computer game circulation is decreased.

Figure 2: Types of Games Circulated



In-House PC Gaming

We then asked libraries if patrons were allowed to play games on the computers in the libraries. An astounding 82% of libraries did allow patrons to play games on the computers in the libraries. When contrasted with the first question, at least 5% of the libraries surveyed allowed patrons to play games on computers in the library, but did not see that as supporting gaming in the library. This points to a need for advocacy to help libraries consider gaming as a service they offer patrons.

Again, the size of the library does make a difference, as can be see in Table 5.

Table 4: Libraries allowing Patrons to Play Games on Computers by Size

Library Size	Allow Patrons to play PC/Web games
a. 1-3000	80%
b. 3001 - 10000	82%
c. 10001-50000	92%
d. 50000 +	98%

Summary of Public Library Survey

This pilot survey turned up several findings of note. At least 70% of libraries support gaming, and about 80% allow patrons to play games on library computers. Only about 20% of libraries circulate games, but about 40% of libraries run in-house gaming programs. Larger libraries are more likely to support gaming activities. There is more

support for analog games like board and card games than there is for PC games or console games.

Because there is already a base of support for analog games, it is important for those wanting to introduce video games to place these games in context with games from the past. The idea behind the games is the same; only the format is different. Libraries have supported analog games for many decades, and supporting video games is a natural extension of an existing service.

Survey #2: Descriptions of 2006 Gaming Programs

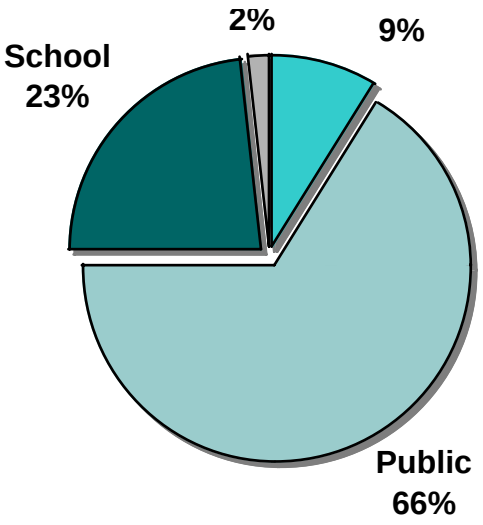
The second study that we did focused on collecting information about gaming programs that libraries offered during 2006. For this study, we created a Web-based survey and advertised it through a number of online forums. We defined gaming in this broader sense presented in this paper and asked librarians to tell us about their gaming programs.

For this study, we sent requests to Internet discussion lists and the *American Libraries Direct* targeting many different types of libraries. One of our goals was to reach beyond public libraries in order to broaden our understanding of games in libraries. This study had no controls for selection of the sample; those who responded were self-selected from the pool of those who happened to see one of our calls for participation. Because of this, we cannot make a statistical connection between the results from this sample and the general population of libraries. Instead, we look to this data to provide interesting areas for further exploration.

Demographics

There were 313 libraries who responded to the survey, many of whom presented multiple programs. As seen in Figure 3, most of the respondents (66%) were from public libraries, twenty-three percent were from school libraries and nine percent were from academic libraries. In this analysis, data will be presented both for all respondents and for each of these library types. Suburban libraries were the largest group represented, with 45% of responding libraries in self-defined suburban areas. Thirty-one percent of libraries were in urban environments, while 24% were in rural settings.

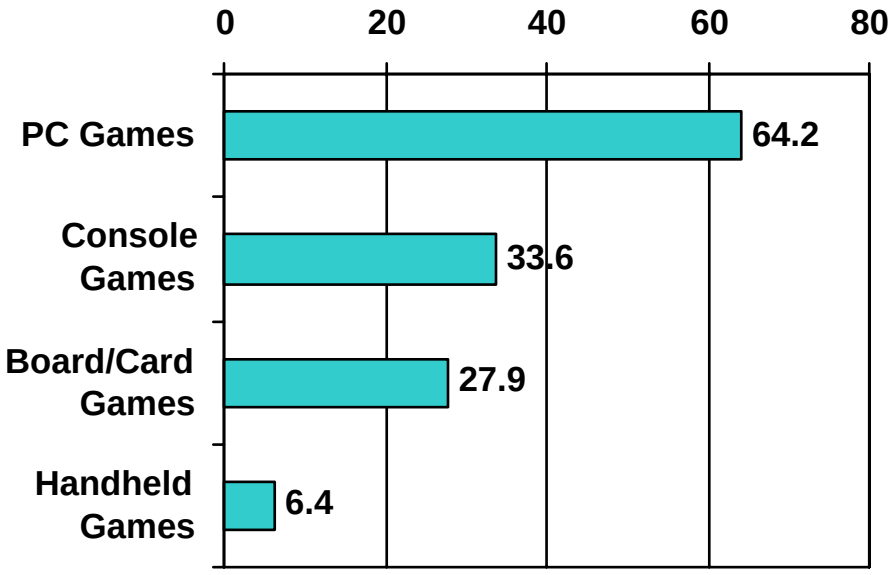
Figure 3: Types of Libraries Responding to Survey



There were 1,964 library programs involving games reported by the 313 libraries. There were 152 unique programs described; many of these programs were run multiple times throughout 2006. The average program attendance was 33, and the total attendance over all reported gaming programs was over 40,000 patrons.

Of the libraries reporting gaming programs, 44% of them circulated games. The breakdown of types of games circulated can be seen in figure 4. Console games reflect games for the Xbox, Playstation, or Nintendo systems that are intended to be attached to an external display, while Handheld games are those designed for systems like the Nintendo DS and Playstation Portable.

Figure 4: Percentage of libraries circulating different games by type of game.



Aspects of Gaming Programs

One assumption about gaming in libraries is that the games will be primarily educational in nature. All games are educational in some way; James Paul Gee has written a book about the many different literacies that are taught by games (Gee 2007). Only 10% of the gaming programs run in libraries were primarily educational in nature.

Another broad aspect of gaming programs is the importance of competition. Half of gaming programs reported feature a tournament, while other gaming programs downplay the competitive nature of games and present them in an open play environment. Ideally, a library program will have both competitive and open play activities in order to appeal to a broader audience; some people will be drawn to the competition while others will not be willing to play under the public eye that a tournament draws.

Activities in Gaming Programs

The most common type of gaming program reported from 2006 is console-based games, with 63% of programs using these games. About 47% of programs used board or card games of some type, and only 17% of the programs used computer games. These portions were similar for only the public libraries. These findings are in conflict with the findings from the first study where there was more support for board and card games. I hypothesize that this is due to the perception of the concept of "gaming." Libraries have been supporting gaming activities for a long time through card games and board games. However, many do not connect these non-digital games to the concept of "gaming." Therefore, the hypothesis regarding the discrepancy is librarians who run only board and card game programs may not have responded to a call for "gaming programs," but were still contacted as part of the random selection process in the first survey.

The most popular game activity reported in 2006 gaming programs in libraries was the *Dance Dance Revolution* series, with 44% of library programs using this game. After this was the *Guitar Hero* series, with 22% of the programs using it. A single program could have multiple games in this analysis. The next most popular game was Chess, with 15% of the programs using it. Other popular games for programs were (in order by popularity): *Mario Kart*, the *Madden* football series, *Super Smash Bros. Melee*, *Halo*, *Uno*, *Scrabble*, *Wii Sports*, and *Monopoly.*

Goals and Outcomes

When a library runs any type of program or service, it is important to have goals when planning the activity. In addition, seeking and assessing outcomes are critical to understanding if a program is valuable. Understanding the goals and outcomes of library gaming programs also allows researchers to create explorations that are reflective of the realities in libraries.

The development of selections of goals and outcomes was a several-step process. We started by looking in the literature and the Internet for goals and outcomes from reports of gaming sessions by librarians. We took these lists and then worked with a group of librarians to expand and comment on the list. These lists of potential goals and outcomes were then used for the surveys, and respondents were able to add other items to the lists.

First, librarians were asked to select as many of the goals as desired that applied to their gaming programs. The top goals and the percentage of librarians who selected them are in Table 5. The top goal, to provide a source of entertainment, ties in with other types of library programs, offerings, and services such as popular fiction, music, and movies. The next three goals, all very close to the topic, focus on the same idea – gaming programs are used to draw people into the library and encourage users to interact with each other.

Table 5: Most Frequently Selected Goals for Gaming Programs (Multiple selections allowed)

To provide a source of entertainment for members of the community	80.34%
To provide an additional service for a group of active library users	79.80%
To attract an underserved group of users to the library	76.40%
To increase the library's role as a community hub	74.72%
To recognize the cultural significance of the gaming medium and to participate in it	51.12%
To introduce users to other library services	44.38%
To create publicity for the library	36.52%

The next question asked librarians to select the single most important outcome from the list. As seen in Table 6, this provided an interesting contrast. While providing entertainment was the most popular goal, when librarians had to select only one goal, it dropped down quite a bit, with only 10% of libraries seeing providing entertainment as the most important goal. The most important goal was a marketing goal – to attract underserved groups of patrons to the library.

Table 6: Most Frequently Selected Goals for Gaming Programs (Single selection)

To attract an underserved group of users to the library	34.83%
To increase the library's role as a community hub	18.54%
To provide an additional service for a group of active library users	16.85%
To provide a source of entertainment for members of the community	10.11%
To recognize the cultural significance of the gaming medium and to participate in it	6.74%

These goals bring about an important finding for researchers looking at games in libraries. Many researchers looking at the value of games focus on the many types of new literacies that gaming can teach. When justifying games, some librarians bring up these arguments as reasons that libraries provide games. This justification is in conflict with the common goals for gaming programs. If the most common goals for gaming programs are involved around marketing and social interaction, then research needs to

focus on understanding the effectiveness of games in reaching marketing goals and improving social interaction among participants.

The next question asked libraries to select outcomes from their gaming program. The list of outcomes are in Table 7. Given that a top goal is to provide a service targeted toward specific groups of patrons, the outcome that the reputation improved with attendees makes sense. This aligns with the concept that gaming is a relevant service for some groups of patrons; therefore, offering this service changes the attitude toward typical non-users of the library by raising their perceived relevance of library services.

This leads into the second most-popular outcome – about three-fourths of librarians running library programs stated that users attended the program and returned another time for non-gaming services. Note that there is no indication from this data as to what portion of patrons returned, just that librarians reported that some patrons returned for non-gaming activities. This is a critical outcome to assess, since it is the outcome that measures the success of the goal of attracting those who typically don't use the library. Gaming programs can serve as a gateway to other library services if carefully planned and marketed, and this finding suggests that librarians are successful in enticing patrons to return.

In fact, this outcome occurred more frequently than the outcome of patrons using other library services while at the gaming event. Some library programs tie use of other library services into the gaming program, such as requiring teen patrons to check out a book in order to participate. This type of direct coercion, while temporarily effective, can play against the more subtle attempt to improve attitudes about the library. Rather than force patrons to use other services, it can be more effective to expose and entice them through cleverly-placed check-in desks and food stations that have attendees seeing more of the library and relevant displays of material. Schedules with gaming programs can also have related activities and online services as a way of marketing events.

Table 7 also contains two negative outcomes. Fifteen percent of librarians reported that patrons attended the gaming program and did not come back to the library. Again, this suggests the need for a more systematic exploration of what attendees do in the months after attending a library gaming event.

About ten percent of the librarians indicated that patrons were annoyed with the gaming activity. This is something that librarians must be prepared for, as gaming activities can be noisy and active. These activities are closer to children's storytime activities, with running, singing, and shouting. This finding suggests that gaming should be considered as a program and not as a service that is always available in the library. Gaming as a special program has a place as a marketing activity in a library. The role of gaming as an always-available service in the library has yet to be determined.

Table 7: Selected outcomes from library gaming programs

The reputation of the library improved with participants.	77.97%
Users attended the gaming program and returned to the library another time for non-gaming services.	76.27%

Users attended the event with friends and improved their social connections with those friends.	73.45%
Users attended the gaming program and also used other library services while there.	68.36%
Users improved their social connections with other previously unknown members of the community.	65.54%
Users improved their skills/knowledge.	38.98%
Users requested new and changed services.	38.98%
Users attended the gaming program, but did not return to the library.	14.69%
Users not involved in the gaming program indicated annoyance regarding the activity.	9.60%

Differences by Library Type

In the next few sections, the significant differences by library type are highlighted. If some aspect of the study is not discussed, then the results for that type of library were similar to the overall results.

Public Libraries

Since public libraries made up 2/3rds of the responses to the survey, most of the overall results also apply to public libraries. Almost 90% of public libraries that responded allow patrons to play Web-based games on their computers. In regard to policies about gaming, most of the public libraries (76%) reported no policy. Types of policies in the remaining libraries varied, with the most common limits (10% of libraries) being on time or bandwidth constraints – there was no discrimination on the activity that was done while the patron was using their allotted resource. Some libraries prohibited installation of software by patrons and a few libraries (5%) imposed filters on game types or allowed no games at all.

Only eight percent of the gaming programs in public libraries were primarily educational, and 43% of the gaming programs were designed as a competition. The types of games played mapped with the overall results, with *Dance Dance Revolution, Guitar Hero,* and *Mario Kart,* and Chess being the most popular programs. The goals and outcomes also mapped to the overall resources, with marketing to underserved users and active users being as strong as serving as a community hub.

School Libraries

Results from the 78 school media libraries have been presented in detail in another article (Nicholson, 2008). Only about 30% of school media libraries circulated games and board/card games were the most popular type circulated. About half of the school libraries allow patrons to play Web-based computer games. Many more school libraries had policies about games, with only 33% having no policy in place. About a third of school libraries allow only educational games, while 17% allow recreational games during free time. Eighteen percent of school media libraries have policies that do not

allow games (although some admitted to allowing games anyway, as this policy was sometimes set at a district level).

Half of the gaming programs were educational, which means that the other half were recreational. This is reflective of the debate about games in school media libraries – some feel that the library is to be used purely to support the curriculum, which others see it as a space for lunchtime and after-school programs where kids who like to game can have a safe space to enjoy this hobby and to meet other kids who enjoy the same thing. Librarians were creative in the way that they used recreational game formats for educational content; applying a game show format to educational content was a popular activity.

With the continued emphasis on teaching to the test, school libraries will continue to face challenges in the integration of non-educational games into the curriculum. The role of "gaming advisory" is one that the teacher librarian could embrace since many recreational games do also improve skills in different types of literacies. Just as the teacher librarian recommends books and other types of resources, he/she could also recommend appropriate games for the instructor to consider as a more interactive way of helping students develop skills.

Academic Libraries

Only 28 academic libraries responded to this survey; therefore, these results should be taken more as a set of case studies than reflective of the general state of gaming in academic libraries. Of these 28 libraries, about half of them circulated games, with the common game types circulated being board/card games (60%), PC games (47%), console games (40%) and handheld games (33%). About three-fourths of the libraries allowed students to play Web-based games, but most of them (71%) had no policy regarding gaming. Of the eight libraries with policies, three of the libraries allowed gaming when the computers weren't busy and the other three had policies that did not allow games in the library (although their response to this survey indicated that they had gaming activities regardless of the official policy).

The size of academic library gaming programs was larger than average, with 44 attendees on average attending a program. Only one of the 21 described programs was primarily educational in nature; 70% of the gaming programs were focused on a competition. Program types were fairly even between the use of console games, board/card games, and computer games. The most popular program was the *Halo* series of games in academic libraries, but the rest of the popular games were similar to the overall results.

The place of gaming in academic libraries is questioned more than gaming in public or school libraries. The role of gaming is similar to the role of the popular coffee shops that are appearing in many academic libraries – it provides students with a social space to do something as a break from studying and makes the library a more relevant space where they *want* to spend time (as compared to *having* to spend time there for class).

Another connection between gaming and academic libraries is the support of the curriculum. As more schools add game creation elements to their courses and programs, the library can be responsive in providing appropriate libraries for students without personal gaming collections to be able to come into a classroom experience with some of the same experiences that their fellow students who may be gaming hobbyists bring. This passion for games that many college students have can be tapped in creating gaming programs; one common type of gaming program is to allow students to bring their own gaming equipment that is hooked up to projectors in the library and have a student-run program.

Conclusions

While this article is in a special issue focusing on youth, one important lesson to take away about gaming is that it is an activity for all ages. Games are important to youth but are also important to a growing segment of the population. Gaming can serve as a program to draw in those who typically don't come to the library (like teenagers) and it can change the mindset of those involved with programs toward the library. It is a relevant service to many, and, with clever marketing, can be used to draw the attention of attendees toward other relevant library services and resources.

Gaming services can also engage people from different demographic groups who live in the same community but may rarely have any reason to meet. Programs that have teens working with senior citizens to teach them *Wii Bowling* engage different groups and cross traditional boundaries. Libraries report that gaming activities improve behavior of youth and allow older teens to serve as role models to younger patrons. A family game activity would allow families from the community to attend as a group and improve family bonds through gaming experiences.

The data we have gathered are just a starting point. Our intention is to continue these explorations with annual gaming program surveys and more systematic explorations of gaming in academic and school libraries. Libraries have engaged in gaming programs for some time now through traditional board games like Chess, card games like Bridge, and even shared jigsaw puzzle experience. Adding in digital gaming is an extension of an existing service. Just as with any library resource, a balance needs to be kept between an activity used in a special library program and something that is at the core of why a library is funded. The appropriate role of gaming in libraries is yet to be determined.

It is important that librarians are just as systematic in developing gaming programs and services as they are in developing a print collection. Game planning should reflect the needs and desires of potential library users, their use needs to be measured and assessed, and the impact of games in libraries must be evaluated so that appropriate justification can be presented to the bodies that fund the library. While games may be for play, the implementation of games in library has to be taken seriously.

References

Alpert, F. (2007). Entertainment software: Suddenly huge, little understood. *Asia Journal of Marketing and Logistics*. *19*(1). 87-100.

Cheng, J. (2007, June 23). Report: Video game spending to surpass music spending this year. *Ars technica.* Retrieved July 15, 2007, from http://arstechnica.com/news.ars/post/20070623-report-video-game-spending-to-surpass-music-spending-this-year.html

Gee, J. (2007). *What Video Games Have to Teach Us About Learning and Literacy* (2nd edition). New York: Palgrave Macmillan.

Levine, J. (2006). Gaming & libraries: Intersection of services. *Library Technology Reports 42*(5).

National Center for Education Statistics. (2007). *Public library (public use) data files*. Library Statistics Program. Retrieved March 26, 2007 from http://nces.ed.gov/surveys/libraries/pub_data.asp

Neiburger, E. (2007). Gamers…in the library? *American Libraries 38*(5). 58-60.

Nicholson, S. (2008). Finish your games so you can start your schoolwork: A look at gaming in school libraries. *Library Media Connection 26*(5), 52-55.

Schmidt, A. (2006). Are you game? *School Library Journal 52*(6). 52-54.

Snape, R. (1992). Betting, billiards, and smoking: Leisure in public libraries. *Leisure Studies 11*, 187-199.

Gallaway, B., Schwarzwalder, J., & Czarnecki, K. (2007). *Game On: Games in Libraries* . Retrieved July 15, 2007, from http://libgaming.blogspot.com.