Title of Session: Targeting Librarians - Teen Girls and Tech
Moderator: Lesley Farmer
Title of File: 20071128targlibgirls
Date: November 28, 2007
Room: Cybrarians Group

LesleyF joined the room.
LesleyF: Hi, folks! I had a student in my office with credential detail crisis.
BJB2 understands...as I'm sure everyone else does!
LesleyF: While we're waiting for a couple of people, let's introduce ourselves. I coordinate the librarianship program at California State University in Long Beach.

LesleyF: The rest of you?
BJB2: Welcome to this month's Targeting Librarians discussion
LesleyF: We're focusing on technology and teenage girls
KathyT: This should be interesting
LesleyF: What are some of your questions and concerns relative to this topic?
BJB2: Lesley, do you want to do some introductions?
BJB2 . o O ( up to you )
KelliT: What does it mean by targeting teens?
KathyT: I am waiting for intro
LesleyF: So I had introduced myself and was waiting for you folks so I could get some idea of what your questions are.

BJB2: please tell Lesley where you are located and what you teach or hope to teach.
KathyT: I am a grad student pursuing my Master's in Elem Education
KelliT: Houston and ec-4
KristenC: Lesley I am student teaching at Birkes Elementary and I start as a 1st grade teacher in January there...

LesleyF: Kelli, I've focused on teen girls, particularly in Middle School, because that's when they start to decrease their tech use -- especially in terms of use at/for school.

KathyT: I am in Washington, DC Metro area
KristenC: I'm in Houston
LesleyF: So we cross the nation. Good!
KristenC: haha yep
LesleyF: Let me lay out the situation a bit.
KathyT: What do you mean decrease their tech use?
JeffC: I'm on Forest Grove Oregon, and one of the resident wiseguys here (along with David). I'm on Tapped In Helpdesk.

DavidW is also on HelpDesk and is in New Jersey, near New York City
LesleyF: I studied tech use by teenage girls back in teh 1990s, as did several other researchers, and we found that girls/women are under-represented in tech courses and tech careers. 25 years later that picture is the same.

KelliT: Yea, in middle school you would think everyone is tech smart
KathyT: I believe it is still that Science/Math thing where boys are the main interest for certain subjects.

KelliT: Are boys better in tech items then girls?
LesleyF: Well, there's smart as in IMing and downloading music, etc., but it's another thing to be able to research and manipulate information using technology. Kids tend to go for the easy route when it comes to using the net. Have you noticed this?

BJB2: critical thinking skills in general seem to be underdeveloped
KathyT: Yes, and if they need to really go deeper they tend to get frustrated and give up.
KelliT: yes that is true, I can see that!
KristenC: yeah I have..
KristenC: I see how students today get really frustrated when they are asked to go deeper..

KelliT: Specially in the higher grades, from subbing in the Pasadena School District, I have noticed this.

KathyT: It's true. The critical thinking skills are underdeveloped and I blame that partly on the education system

LesleyF: The situation is international too -- I've seen this in Asia
KristenC: I'm with elementary, but even at that age it starts early...
KristenC: wow that's amazing
KelliT: This is across the board not just technical things
LesleyF: Let me show you a website that talks about this issue from an international perspective: Ready?

KristenC: sure
KathyT: Yes
LesleyF: http://www.unicef.org/girlseducation/index_focus_technology.html
LesleyF: Take a look for a couple of minutes
KelliT: the article states that computers used around the world are improving the classrooms

BJB2: the last sentence in the article pretty much sums up the use of tech in the classroom: For example, when technology is viewed as an end in itself, the content of a course is sometimes sacrificed.

LesleyF: So, let me share some of the current findings, and then we'll look at ways to get girls more engaged.

KathyT: Ok
KelliT: good deal
KristenC: good
LesleyF: Yes, BJ, that's actually a central issue because for most girls if tech is the end, they aren't interested. They are interested in tech as a tool to help understand/use CONTENT, particularly concrete and applicable content.

KelliT: true because that is the way I am, is that bad
LesleyF: SO: girls see males with computers than see females -- and parents are more apt to give their sons computers than their daughters.

LesleyF: it's not bad, Kelli, it's rational actually -- and usually indicates that girls want to make meaningful relationships.

KelliT: does this have to do anything with boys loving to play video games
KathyT: I think it's genetics
LesleyF: BTW, these are TRENDS, not absolutes. I tend to fall into the guys' use of technology, but I DO see it as a tool.

LesleyF: YES, the video games phenomena is an excellent example.
KristenC: yes it is...boy love those games
LesleyF: Girls tend to like open-ended games rather than the level ones where you beat the boss.

JeffC: my son is killing Nazis behind me as we speak.
KathyT: There again, I believe genetics and how male and females are structured
KelliT: can't get my husband to stop talking about Halo 2, ha
LesleyF: Girls like the RPG ones more than the closed typed ones. They also like adventure and relationships in gaming.

LesleyF: Yes, it's both genetic and societal
KathyT: I agree
KristenC: tell me more about the genetics part...
KelliT: how genetics
CatherineO: I was just going to say....nature and nurture
BJB2 . o O ( quite a few articles in the Playing to Learn group on gender related gaming issues )

JeffC: in his game he kills Nazis and chats as well... so yeah... there's definitely a weird sort of social bonding that goes on.

LesleyF: An interesting issue is that education is thinking about gaming more, and boys CAN learn that way. Girls, on the other hand, prefer textual feedback that is personalized.

KelliT: very true
KristenC: I think having boys play educational games would be great!
LesleyF: If it takes too long to figure out how to navigate in the virtual setting or learn the rules, girls are "out of there"

## KelliT: VERY TRUE

KathyT: Because girls use a specific part of the brain integrating feelings and emotions while boys do not, they use the more bottom line, rational side, male-female interests will differ.

LesleyF: Where game motifs are combative and competitive, girls get stressed while boys say "Go for it!" And girls are not very motivated by hand-eye coordination as much as boys.

## KathyT: I agree

KristenC: I agree too
KelliT: So why should girls be more interested in tech stuff, is it bc the world is advancing that way

LesleyF: right, Kathy. Interestingly, when in crisis boys tend to use the bottom part of their brain (fight or flight) while girls use the top half of their brain (negotiate...etc)

KristenC: I do that! hah
LesleyF: On the other hand, there are some elements of gaming that speak to girls: openended, role-playing, simulation, interactivity, story line, graphic features, context

LesleyF: It's just that different games tend to attract girls and boys.
KristenC: So why can't classrooms have both types of games?
LesleyF: Also, when boys and girls are in the same room playing the same games, boys tend to improve their performance and girls do worse. When it's a girls' only environment, girls feel less stressed and do better.

KathyT: Staying with Technology isn't really an option for boys or GIRLS. Technology is our world today and tomorrow. Our children must stay up with it.

LesleyF: Exactly, Kristen, there SHOULD be choice in the types of games -- we just need MORE games and types of game development so kids can pick those types of games that work best for them.

LesleyF: yes, Kathy, that is why it's so important to engage girls -- otherwise, they lose out on about $70 \%$ of careers.

CatherineO: Should classrooms have gaming?
KristenC: Yeah I agree... if there could only be a larger selection I think both boys and girls would learn better

LesleyF: that is certainly a valid question, Catherine. That gets into instructional design.
KristenC: If the gaming is instructional then yes
JeffC: QuestAtlantis, WhyVille are two gamestyle learning environments... to some extent, so is Second Life... but they're more like Multi User Virtual Environments than games. YOU don't shoot (so they're not as interesting for boys)... but they *should* get past school district filters.

KelliT: but the girls I had in the first grade love playing on the computers
KathyT: I agree that the games should vary according to preferences for male/female interests, just as we must gear reading material within the classroom for male/female interests.

LesleyF: Even more basic is the curriculum itself. For instance, assignments in tech course, as well as in physics and math, tend to have gender-neutral problems/context or more male-oriented examples. Teachers need to figure out contexts that girls can respond to.

LesleyF: exactly, Kathy
CatherineO: I'm just wondering what the goal would be? To improve critical thinking skills?

KristenC: I don't think that girls shouldn't be able to play on the computer...they just need appropriate games...

LesleyF: I have to say, Jeff, that I can't even maneuver around the corner in Second Life so I've pretty much abandoned it...

LesleyF: I think it's important to expand beyond gaming to the larger perspective of tech -- does it improve critical thinking skills? It certainly has that potential

KristenC: Wouldn't you all think that just gaming would teach all...
KathyT: I believe that technology allows the students to manipulate and maneuver to higher levels of thinking as they create and problem solve to accomplish set objectives/goals provided by the teacher.

LesleyF: You said earlier, Kelli, that Kinder girls loved playing computers. up until about 5th-6th grade, boys and girls use computers/tech about the same way and same amount. In middle school, it changes significantly -- to the girls' disadvantage.

KristenC: Critical thinking skills can be developed through gaming and computers and many other technology products

JeffC: Which brings up another important aspect of tech in the classroom, Lesley. Just because educators can't maneuver... doesn't mean that students can't. Unfortunately, we've been raised as teachers to always be in control... it's hard to give up that control to students... but to me... it's *an essential part of 21st Century learning*.

KelliT: I don't know about yall, but I guess the stats are right bc I'm afraid of the comp sometimes

KristenC: Maybe the girls just need some motivation..
KristenC: I'm not afraid of the computer, but I do get confused and frustrated...
LesleyF: One issue about gaming is the time that it takes to learn something: in some cases it's faster to read a book; so it depends on what is being learned.

KelliT: that to
KathyT: I understand Jeff's concerns, we have to become more of facilitators of learning now instead of being in complete control and that's difficult, but very necessary in today's society.

KristenC: it might be faster to read a book, but its probably quality to do the game...
KristenC: facilitating is very important...
KristenC: I know I would learn better from a game than reading a book..
LesleyF: I agree, Jeff, about control. Nevertheless, if one is using games to teach, that person needs to evaluate the game. For instance, Sim city, has a bias in terms of types of energy use and type of governance. It's really not open-ended. A student can (and did) sell that game to a social studies teacher who used it and only after a while did she see how it shaped students' perspectives.

KathyT: True and it's proven that active learning occurs more often when a student is engaged. Technology engages all types of learners which is really the goal of the teacher isn't it?

KristenC: Well just like any other subject or assignment, the teacher should look deeper into it and get some background information before presenting it to the kids

JeffC: interesting... but then you could also use that as a teachable moment regarding skepticism. same thing applies to wikipedia... use it as a starting point for investigation... not an end all "gospel" (which is what students have become accustomed to anyway with textbooks).

LesleyF: usually teachers know their content and outcomes better than students, and they should be able to evaluate resources better than students, so that's the role they need to play in terms of the gaming element. AND they need to be sensitive to girls who don't want to spend an hour figuring out how to play the game before even getting to the content.

KelliT: Yes, that is true, but is there time in the day to allow the children on the comp everyday

LesleyF: But not all tech engages all kids, particularly girls, which is the focus of our discussion.

KristenC: yeah that is true
LesleyF: Indeed, there are many kids who aren't agile with tech, and don't want to be. Period. We need to respect that.

JeffC: it's also a "process vs. product" argument Lesley. if rather than focusing on the "stuff" that the students need to learn... what about the problem solving that just goes into finding an answer?

KristenC: right, so if there isn't enough time do you pick and chose the kids that would benefit the most from the computer?

LesleyF: exactly, Kristen.
DavidW: But, it doesn't have to be the "tech" that is engaging - it can be the content what the tech is being used for

DavidW. o O ( design, communication, etc. )
KelliT: And does tech have to be using the comp

KristenC: not always
LesleyF: I don't want to spend 2 hours figuring out how to move across a space. That isn't problem-solving, it's hand-eye coordination that really isn't always necessary.

KathyT: No it doesn't have to be the computer.
KelliT: What are the other options can be used in the classroom

LesleyF: Interestingly, guys prefer using the mouse, and leave the keyboarding to girls...
DavidW smiles as a keyboarding-oriented male
LesleyF: SO, YES, what are some viable technologies -- using cell phones, digital cameras and camcorders, recording devices, just to name a few.

KelliT: those are some good options
LesleyF: Girls also like iPods, graphic calculators, web cams, webpage development
LesleyF: They like DVD and other MP3/4players
KristenC: I like text messaging
LesleyF: girls like tech that seems fun, not onerous
KristenC: yes I have to agree
LesleyF: so the key is to find out what is fun for them -- YES, girls RULE when it comes to IMing...

KristenC: well I think it all comes down to getting to know your students on an individual basis

LesleyF: Some software that girls like include the social network stuff: skype, blogs, wikis, wordpress, social bookmarking.

KristenC: if you know what your students' interests are then you can target their technological learning

LesleyF: The web 2.0 phenomenon is perfect for girls -- so the more that education can use social networking/interactivity, they will engage girls.

LesleyF: exactly, Kristen. Start with the students.
KathyT: What I found in one classroom is that girls and boys like to use Microsoft Photo

Story software (free download) which they self-create a video regarding a content area using pictures, words and a voice narrative of their findings. Girls tend to be more touchy feeling with music, etc. where boys chose nature and bugs, but the same goal was achieved.

KelliT: So what does the term Cybrarians mean
DavidW . o O ( Tapped In population is about 3:1 female/male )
LesleyF: Cyber librarian
KristenC: I would love the microsoft photo story
LesleyF: Girls like to MAKE stuff: web pages, art, wikis, etc.
KristenC: yup we do!
KelliT: but all of that is very technical
LesleyF: yes, Flickr, YouTube, PhotoBucket are all excellent ways to gather/collect/organize and share personal experiences/learning.

LesleyF: Photostory is usually pretty easy in terms of the basics.
KristenC: what about facebook and myspace?
LesleyF: YES
KristenC: I love those...so I am sure most girls do!
KelliT: so if girls are into so much what is the tech problems that girls are facing
LesleyF: so the more that we can figure out how to make facebook educationally positive, the better -- such as peer review of writing.

KristenC: yeah that would be really cool
LesleyF: Teachers tend to not use social networking -- or letting kids get access to the net,.

BJB2 . o O (but they could use the Tapped In student campus )
Catherine0: Is the tech problem in the lack of females in the "tech-related jobs" or is there apathy when it comes to using technology in the classroom environment?

KristenC: Which I think is stupid...

LesleyF: there are some schools that won't even give access to Tapped In...
BJB2 nods to Lesley
KristenC: If we could limit certain websites then what's the problem letting girls on the web?

KristenC: girls at a young age could really benefit from tapped in
KelliT: what's wrong with tapped in that some schools won't allow it
LesleyF: a major problem is that girls don't realize how much tech is used in careers; many counselors are also uninformed in that area. Girls don't think tech is in their future.

KristenC: tech is in EVERYONES future
KelliT: the future is tech and I think that girls are coming along from what I see
KristenC: it is 2007...
LesleyF: I agree, Kristen, but some administrators are afraid of lawsuits, etc.
KristenC: well if our world wasn't so cruel then that wouldn't be a problem..
LesleyF: one would think the tech future is obvious, but it isn't. That's why we need to help them see that obviousness.

LesleyF: you folks, for instance
KelliT: This is hard for me to understand bc in the elem schools all the children are very tech smart

LesleyF: it's the dropoff in middle school...
KristenC: not all of them...they are interested but some get really frustrated
JeffC: flickr, youtube, myspace, photobucket etc. are all banned in my (and many other) districts.

KristenC: yeah they are banned in mine too
LesleyF: there are social pressures STILL that link tech and geekiness
KelliT: Their show and tells are cool little digital items, but I guess in the middle schools it is dif

KristenC: ha...one would think you would be lame if you did not know how to use tech
KristenC: you are using the computer right now...that is tech...so how does it apply to you

KelliT: I have come along way but if it takes too long to figure out I'm over it
KristenC: and that is a lot of the concern with girls..their interest level and how long it takes to get to what they are doing

KristenC: I'm the same way
KelliT: very true
KristenC: there needs to be stuff that girls can do that is straight to the point but teaches the same concepts

CatherineO: Even in high school, I don't seem to see a huge resistance to technology. Maybe at the college level? Picking a tech-related major? I can definitely see how there might be a big drop-off at this point

BJB2 again suggests that you check out the Playing to Learn group room later...some interesting resources

KelliT: My husband can figure lots of things out so as long as I stay with him I'm good.....:)

KristenC: haha well you should learn how he does it! I learn a lot from watching people figure things out.

KelliT: I do and from that I am grateful be it feels good when I get something or can do it on my own

DavidW: Although I'm pretty tech savvy, what's great about the Internet is that there are people who know who can help

LesleyF: Let me show you a couple of web sites that are targeted to these girls:
LesleyF:www.zoeysroom.com
LesleyF: www.gurl.com
LesleyF: www.zwinky.com
KristenC: what are those sites?

LesleyF: they are just fun interactive sites. take a look
KristenC: ok

KelliT: Zoey's room looks cute
JeffC: Here's a good article in GLEF entitled "Building a Better Teacher" (for your transcripts for later): http://www.edutopia.org/schools-of-education

LesleyF: OK, so another approach that works well with girls is cause-centric activities: saving whales, etc.

LesleyF: here is one effective program out of the Univ. of Michigan: www.umich.edu/~irwg/research/current/gems.html

LesleyF: and getting back to the futures orientation (which can be hard for middle schoolers), here are some sites that are girl oriented about tech careers: www.witi.org, www.gsdl.org, http://eamusic.darthmouth.edu/~wowem, http://guest.hasa.gov/women/intro.html

KristenC: in middle school are students really thinking about their majors?
KristenC: I know I wasn't

KelliT: me either
KristenC: I mean I think it's great that it is available to them at such a young age...but I feel like they won't take it to heart...

KelliT: but I guess it is 2007 everyone is growing up very fast
KristenC: ha really...in all ways
DavidW: A lot of mentoring projects (to encourage girls in math and science) focus on middle school age students

LesleyF: rarely... but if kids don't get into the loop early on, they get shut out of the courses they'll need to have a tech major. Especially math. These days, most kids need algebra in 8th grade to get to high enough math for college tech course. In that respect, girls are usually more logically developed than boys so they should be able to do OK in algebra at that young of an age.

LesleyF: the idea is to keep options open, not that a kid has to decide at age ten to become an engineer...

KristenC: true... I did algebra in 8th grade
KristenC: yeah it is important to have the options
LesleyF: So let's look at classroom practice: using tech as a way for active construction and production, communication and creativity is good.

LesleyF: Provide meaningful context where tech helps. Use tech to help collaborate. Push the visual aspects of tech.

LesleyF: Push sharing via tech
KristenC: powerpoint is my best friend!!
KathyT: I love to use Powerpoint as well
LesleyF: here are some starting ideas: Flickr approach to finding images about an issue, or historical period. Tag/organize them.

LesleyF: collaborative PPT to debate an issue
KathyT: thanks
KristenC: good idea
LesleyF: peer-reviewed writing or class wiki on a topic
KathyT: I used powerpoint with Smart board for a unit review and it was very successful
LesleyF: online surveys about social issues
KelliT: What is the issue about middle school girls it is the age that just gets lazy and uninterested?

DavidW . o O (boys?!? )
KathyT: amen David
LesleyF: critical analysis of TV; re-edit ads or speeches to make different arguments
DavidW laughs
KristenC: ha

LesleyF: it's not that the girls get lazy, it's that people say to the girls that tech is for boys. School gets more serous and the tech gets more serious, and girls opt out because of
pressures/competition.
KristenC: and lack of interest in the topics
LesleyF: tech = math (which isn't true), but is an ed myth that scares off girls.
LesleyF: Some computer teachers who are male are condescending to girls. Some women in ed tell girls that tech isn't necessary -- or that they are afraid of tech.

KristenC: it may not $=$ it but it can play a large role in it
LesleyF: it really is the adults' problem....
KristenC: yeah it is
KelliT: I see, so the problem is very societal as well
LesleyF: Kristen, it's when people say tech is ONLY math -- or that you HAVE to know math well to be able to be technologically competent

LesleyF: that's right, Kelli.
KathyT: I agree. The stereotypes for male/female gender subjects must be resolved first in our schools.

KristenC: oh I see... well I don't think that true
LesleyF: so we need to be encouraging to girls.
KristenC: I think that it's a plus to know both... but not that necessary
LesleyF: also boys are more likely to take risks than girls so we need to foster intellectual risk-taking for girls.

KathyT: I agree
KristenC: I mean...with math, if you are good at tech then the virtual manipulatives are great teaching tools

LesleyF: We need to encourage girls to take apart machines, install software, play with equipment and not worry if it breaks

KelliT: I am very aware of the myths, but I did not think it was creating such a problem this is a great chat

LesleyF: yes, if you're good at tech, it can actually help you with math.

KristenC: ha how cool would it be to have a doll for children that is a machine that you have to put together to make into a doll

KristenC: sorry..random
KathyT: I find this very interesting
KristenC: but I would have totally played with it as a child
KelliT: wouldn't be much dolls...haha
KathyT: agreed Kelli
KristenC: or there would be because girls would be learning
KathyT: Possible
KristenC: and then as they get older they would be more interested in tech
BJB2 looks at the clock on the wall.
KristenC: I don't know..

KelliT: then very interesting looking dolls
LesleyF: There's also a phenomenon that when tech works, boys think it's because they are smart -- girls say it's because the computer is smart. If boys have problems with computers, they say computers are dumb. Girls will say that they are dumb--not the computer.

KristenC: haha I always say the computer is dumb when I have a problem...

KelliT: something to ponder
KristenC: But that's me being me... I never say I'mdumb!
KathyT: that's true
LesleyF: see, Kristen, is showing that self-deprecating attitude -- her idea is very cool -and colleges are doing that at summer camps for MS girls...

KelliT: Me too bc I don't want to be accountable for messing up the comp
KristenC: so I guess my idea wasn't so bad

LesleyF: so the idea is that we need to be more objective about tech problems, not good/bad with the id.

LesleyF: (should be kid but id works too..)
BJB2 smiles
KristenC smiles
LesleyF: Hopefully, this discussion gives you some new perspectives and info that you can use.

KelliT: sure did
KathyT: Most definitely!
KristenC: yes it did!
KelliT: glad I joined yall this evening
LesleyF: good tech use is inclusive and engages EVERYONE
KristenC: Me too
LesleyF: it was a VERY lively and fun conversation, folks
BJB2: Thanks, Lesley! The next Targeting Librarian discussion will be in January...watch your calendars!

KathyT: Thank you Lesley
DavidW: Good discussion, Lesley
KelliT: yes thank you
KristenC: Thanks Lesley
LesleyF: the topic will be learning spaces -- how tech revolutionizes the spaces in which we learn. OK?

BJB2: happy holidays, Lesley.
KristenC: Have a good night everyone! I am going to watch my show now! :)
KelliT: bye all take care

LesleyF: have a great holiday -- or two -- or three
LesleyF: thanks, all
KathyT: Thanks much

