

Technical and Development Foundations for Innovation

Moderator:

Richard Carey- Digital Media Solutions

Panelists:

Carly Shuler- The Joan Ganz Cooney Center at Sesame Workshop

Dave McCool- Muzzy Lane Software

Krista Marks- Kerproof

Lee Wilson- Headway Strategies

Carly Shuler first provided some background information regarding The Joan Ganz Cooney Center at Sesame Workshop. The Center is an independent non-profit housed at Sesame Workshop, acting as a think-tank that seeks to enhance children's learning through technology/media. Their "D is for Digital" report interviewed 60 leaders in education, from technology experts to experts in literacy against dig media in education; the report also performed a literature review and scan of products on market. Through this, they developed recommendations for developers of digital media:

1. Leverage consumer market trends for education, including:

Virtual worlds, which are a great opportunity for students under 13

Casual games

Video content on the web accelerated use of the internet- Wireless Generation using DIBLS with PDAs and based on assessment data, the student gets targeted Sesame Street content

'Youth' generated content

Media convergence- Converging of technologies- look at cell phones as tools for ed, look at Japan, etc.

2. Break the model of one child per screen

Encourage intergenerational interaction, as the best learning takes place when an adult scaffolds the learning experience (explaining the extraordinary popularity of the Wii)

Combine the virtual and physical worlds (i.e. Chris Dede HARP project, GPS tech in the school yard)

Think outside the box and beyond standard operational tools such as the keyboard and joystick

3. Bridge the gap between industry and academia

Convene multi-disciplinary teams

Apply knowledge about child development and learning in product design

Dave McCool represented Muzzy Lane. The company has been in business for six years, five of which have been partially dedicated to educational gaming. McCool described the trends that have been occurring in the game market, citing the collision of Web 2.0 with World of Warcraft. Core gaming guys, he said, think web gaming is not legitimate gaming; this in mind, Muzzy Lane saw a real opportunity for education. He talked about the ways in which social networking and user-generated content are changing gaming:

- Online games are moving from isolated islands to web-connected services
- The commercial games market is seeing a lot of innovation on this theme
- Trends are impacting both single and multiplayer games

Opportunities for education included:

- LMS integration for assigning, tracking and assessing work
- Support for collaboration
- Integrating traditional and interactive content
- Significantly lowering the cost of content creation and updating
- Per school-/class-customization
- Creation as part of the student experience

During the development phase, Muzzy Lane sought to deliver gaming as a web service, create links to enable full three-dimensional gaming from the browser, store all game data on the web and create tools to enable collaborative content creation on the web. Muzzy Lane is currently collaborating with Pearson/Prentice Hall on a project that addresses gaming within LMS

Krista Marks of Kerpoof first discussed the belief among those seeking educational software that “web” equals “free”; the number one search term on the internet is, after all, “free”. Despite all of the rich applications that are free for adults (photo storage, productivity apps, email, etc.), many business models are successful (ad-generated, etc.) The line between desktop applications and browser applications grows blurrier all the time.

Marks then gave a quick demonstration of Kerpoof, a web-based application for drawing and sharing that is sensitive to shape and line creation. Up until recently, these capabilities were associated with professional graphics tools rather than browser applications. This program can be accessed anywhere and save/share projects online. Kids in particular are taking advantage of the program by making and sharing amazing art. The web enables easy sharing, which in turn enables UGC. Kerpoof represents a great business opportunity to integrate these capabilities into what kids really need to learn.

Web=Easy Sharing=UGC
 Community matters
 Collaboration matters
 Demographic matters

Among the most important identities children can experience using digital tools are those of designers, creators and inventors, Marks concluded. This, she said, represented the challenge.

Lee Wilson of Headway Strategies spoke next. A surplus of information, he reminded listeners, creates a poverty of attention. He then discussed paradigm shifts and the democratization of content creation, particularly the one-percent rule, which refers to the small number of users that actually create content. This percentage has risen significantly since the 1990s, when much less than one-percent created content. Presently, the average urban dweller sees 4k of ads each day. A YouTube.com awareness test found that people are much more focused on finding information rather than scanning for it, a small change that yields huge leverage. Wilson then discussed the democratization of content distribution. The non-existent marginal cost has resulted in an explosion of information, which in turn creates a poverty of attention. He listed six ideas to consider for marketing:

- Focus on being found (rather than simply creating the most amount of noise); build stuff into the product that benefits the marketing effort
- Be remarkable. If the product is not remarkable, go back and think about it. No one will talk about it unless it really sparkles
- “Relax Grasshopper”: Companies believe that they have control over their brand identity (even though they don’t). Be open to the external talk, speculations and opinions.

- Respect people's time by having what they need ready for them when they are searching. Additionally, make it easy to find.
- Make everything personal and actionable
- Optimize, optimize, optimize

What are the biggest challenges in developing these new kinds of products and making them relevant to the K-12 education market?

McCool found it difficult to integrate into the current market; he had to think carefully about what people needed, and also modularize and clear-message. He encouraged listeners to understand the environment in order to successfully integrate.

Marks identified low expectations—"setting the bar too low"—as one of the challenges. Because adults struggle with digital media, they often set the bar too low for kids. They don't believe in kids' abilities.

Schuler found it difficult to create products that involve rather than alienate the teachers. She found it crucial to encourage human interaction with your software because feedback from teachers creates a better learning experience.

Lee responded that the speed at which the market moves is so out of sync with the pace of the education world; he sees exciting things, albeit it rarely. He did note some interesting systemic changes in terms of how quickly we can actually push this.

There is a lot of talk of user-generated content and socially connected media in the educational technology space. How do you develop for a product—one that can only go so far until you put it in the marketplace—and hope it goes well?

Wilson said that this is already the expectation in the market now. Teachers are doing this as consumers but not as teachers. Marks cited UGC, and claimed that the creative process is a big part of kids' learning. People love to be published, and the provision of platforms in a school setting where students can publish and vote by companies helps create students' identities. This is all part of the learning process and should be integrated and expected. Shuler has seen great examples of kids writing fiction about their favorite characters, including characters like Harry Potter. When these writers can focus on production rather than consumption, they learn better. McCool referenced companies like Webkinz and Club Penguin, which facilitate kids' ability to share and show their creativity.

Wilson described the way in which people's online identities now merge with their real identities. Kids spend hours doing hard work in these games, a process that constructs identity. Companies, he said, haven't given students the larger story to make school relevant for them; hence, kids are still more inclined to work hard at the game rather than math.

How do you build a product to ensure that it is both educationally relevant and appropriate?

Marks described this issue as a critical challenge. When considering costs, companies should (depending on their demographic) include humans reviewing content to make sure it is appropriate. Club Penguin, for instance, has 100 reviewers. Marks felt it necessary for companies to make their target audience part of the review process, as kids especially need to practice genuine expression between one another; without that, they will leave. Kerpoof,

she noted, is committed to free speech, but focused towards young kids. Companies can share anything with its group (existing social networks) but not beyond unless the product or service has been reviewed. You can limit a bit of freedom, she reminded the audience, without being totally controlled.

When you start to introduce branded content with UGC, how do you deal with the issues of kids or adults doing things to your brand?

Shuler responded that the industry struggles with issues of this nature (i.e. IP and children altering a given brand) right now. Companies should remain mindful of products they put out into the world and remember that kids don't understand branding. How many restrictions companies enact or how much action they take depends on their comfort level (e.g. not letting kids change color of Big Bird, but allowing him to play a role in a story for which they pen the ending). Marks openly supported child-imposed alterations—shouldn't it be a good thing, she queried, when kids want to draw your characters?

What is the rationale behind breaking the model of one child per screen?

Schuler believed that while this model has a place in the education world, it has been the standard for too long; now is the time for new models and ideas. Scaffolding and feedback inspires the most efficient and successful learning. For instance, the Wii proved that various types of innovation (virtual, physical, etc.) could bring people together rather than dividing them.

I am concerned that kids will link out to other places on the web from those sites or typos to go to other sites.

The panel recommended using filters to block that kind of access. These are not new problems, just new situations. Companies should limit links and make sure the ones available are age-appropriate. The panel discussed the issue of accountability. Kids are very good at policing themselves; when behavior is shunned, kids will walk away. In safe and secure environments, kids will police themselves more. Regarding the issue of uploading photos and videos, I don't want to impede a kids ability to do the project. Pending approval mechanism that enables broader sharing once approved. Resistance that comes from teachers and school is if 200 photos are going up each day, it is hard to approve. Product experience from an admin - thumbnails of photos to approve all at once? UGC- long tail. I take issue with 1% of users creating content. I believe that if someone looked at something, there can be viral propagation of watching where others go and participate, and that starts adding its own value. We often don't talk about it. Behavior of purpose and environment of purpose.