

## NCTI 2008 Innovators Conference

**Session Title** Breakout Session 1: Getting Serious About Gaming  
**Names of Presenters** Chris Dede, Chinwe Onyekere, Alex Quinn, Ben Sawyer  
**Date** Thursday, November 20, 2008

**Summary** Panelists discussed examples of gaming initiatives they are involved with and then opened the floor for a discussion with participants about the challenges related to implementing games as an effective learning tool – for students with disabilities and for all students in the face of limited research.

**Chris Dede**, Timothy E. Wirth Professor, Learning Technologies, Harvard Graduate School of Education (*Moderator*)

Chris discussed his simulation project ([River City](#)) and the issues within universal design for learning (UDL) related to technology. His company has done some of the following to address the issue of UDL as it relates to video games:

- Tagged icons
- Making secondary details in game less visible so players are not focused on distracting, enlarging pictures.

Chris also discussed the following areas:

- Interfacing and immersion
- Capturing data on change over time
- Environmental health meter
- Experimentation
- Culturally diverse avatars (though none are disabled)

**Alex Quinn**, Executive Director, [Games for Change](#)

Alex presented on how games connect to social issues and get people to get interested in them (such as environment, human rights, poverty, etc.) He said that this is a collaborative effort that includes academics, game designers, and not-for-profits. Games are popular among the teen population and because of gaming popularity Games for Change is advocating that games can do other things besides entertain, such as engage participants in social issues within the games.

Examples of Chris's games that are based on social issues –

- Food Makers – choose leader of a country and work through PR strategies, etc. to feed your country.
- Free Rice – vocabulary tests where each word right gains a small amount of rice



for countries in need.

- Darfur is Dying – series of actions that can be taken to contact your state representatives; opportunities to learn more about Darfur and take action.
- Budget Hero – create a budget and see the consequences of your budgeting.
- Ayiti (The Cost of Life) – manage survival of family of 5 in poor circumstances.

Chris also stated that the Boys and Girls Club is collaborating with Games for Change – Gamestar Mechanic is a game teaching players how to make a game. He also referenced a virtual reality game about the Supreme Court and said that Madeline Albright is partnering with Georgetown University and Arizona State University to help players learn more about the U.S. judicial system.

Lastly, Chris referenced a Games for Change Toolkit available on their website in early 2009.

**Ben Sawyer**, President, Digitalmill, Inc.; Cofounder, [Serious Games Initiative](#) and [Games for Health](#)

Ben stated that children are serious about games – “I beat that game.” We rarely hear the same enthusiasm about their school day. How can we bring the two together so students are excited about gaming and school?

What is the serious games space?

- Often confused as just games for learning
- Combining research, advertising, web 2.0
- Gamers taking standard games and making their own versions, improving them

Roughly where do things stand?

- Serious games just beyond emergent, still viewed as just games for learning
- Biology-based measurement in gaming happening
- Games are a culture of interface

Special notes on Accessibility

- Games Accessibility Day
- Ablegamers.com
- Grassroots effort to do more for gaming and accessibility

**Chinwe Onyekere**, Program Officer, [Robert Wood Johnson Foundation](#)

Chinwe presented on three main areas: focusing on the future, quest for breakthroughs, and seeking visionaries (design, economics, games). She discussed why the Robert Wood Johnson Foundation got involved in the gaming market - the Foundation asked



“what if” this was a way to create change in healthcare? The Foundation decided video games were an effective way to promote good health in communities.

She provided examples of games that can help improve health:

- Dance Dance Revolution – West Virginia study looking at lack of physical education in schools found that Dance Dance Revolution helped kids stay active.
- Re-Mission – increased cancer-related knowledge

Chinwe also discussed health games research and building an evidence base. She provided data showing that interactive games have positive incentives. She discussed a 2008 grantee PREPARE (Practicing Relapse Prevention in Artificial Reality Environments) and what the grantee is doing to get involved in the gaming industry to promote healthcare knowledge. She also stated that media coverage in games for health is high.

## Discussion

1. *Special education technology, students with autism and developmental disabilities – research shows something positive can happen, but access for these students is low. Are these issues being addressed? How can we get them to be addressed beyond blind/deaf 508 standards?*

Ben Sawyer: Video game controllers for children with learning disabilities exist. Rush Chilling at the Naval Research Center is active in accessibility community. We are trying to address it.

Chris Dede: David Rose is working on this issue, trying to get effective wording in Request for Proposals (RFPs), especially from NSF, to talk about how it will reach the broad scope of learners, UDL.

Audience member: My project is working on soft skills and behavioral skills change. The work currently being done is focusing on a cure for autism, not on helping them right now in daily life. This is a slow process.

2. *The focus seems to be older children. What are some initiatives for preschool and early learning?*

Chris Dede: WGBH interactive division thinks that broadcasting is a good place to start, but not the place to stop. Platforms are coming along, but the issue is recognizing the full range of learners needing help with things like reading and the types of accommodations they need.

Ben Sawyer: I started a group called First Games to address this issue at MIT. There is also experimentation in Japan about children and parents playing games together.

3. *The actual act of reading produces learning and growth, but what about the thinking required to gain understanding?*

Alex Quinn: Games I referenced earlier (for example Darfur is Dying) teach learning and growth; peer-to-peer dialogue is happening with game discussion. However, introducing



National Center for Technology Innovation

Advancing Technology Innovations for All Students

---

these games into the daily school day is not happening yet due to such reasons as lack of time.

*Audience comment: Working on concept of transforming user interface including scaffolding. There are ways to include three or four modalities. JMU – students with learning disabilities play games to teach them skills and parents can track progress.*

4. *The focus on disabilities is limited from her research. Basic accessibility in gaming – is the issue conceptual or programmatic?*

Ben Sawyer: Both. There are technological issues; however, conceptual issues (such as beat the clock, color blindness) are a problem too. More support is needed.

*Audience comment: For games to be fun when a person is blind, a user interface medium must be applied.*

Chris Dede: This speaks to the importance of modifying. A development team is not likely to find ways to modify games for certain users, but the user community should find ways to modify games.

*Audience comment: Research is a key issue – why are games effective? Research is needed to prove why games should be moved into the classroom.*