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# DEVLEARN<sup>SM</sup>

## THE eLEARNING DEVELOPERS' CONFERENCE & EXPO

# 2006

INCORPORATING THE eLEARNING

INSTRUCTIONAL DESIGN<sup>TM</sup>

CONFERENCE

503

## Massively Multiplayer Online Games and Environments

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[www.eLearningGuild.com](http://www.eLearningGuild.com) • +1.707.566.8990

Massively Multiplayer Online Games & Environments



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**Ai** The Art Institute of Phoenix®



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CORPORATE eLEARNING DEVELOPMENT  
INTEL CORPORATE LEARNING BLOGGER WITH AN EYE ON THE FUTURE OF LEARNING WITHIN THE CORPORATE WORLD.

<http://elearndev.blogspot.com>



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**NICK YEE**  
**Stanford**

Average age = 26  
 Median age = 25  
 Range = 11-69  
 ONLY 25% of users are teenagers  
 8-16% female (depending on game)  
 50% work full time  
 36% married  
 22% have children



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**NICK YEE**  
**Stanford**

**Usage Patterns**

- Average number of hours per week = 20
- 8% of users spend 40hours or more per week
- 70% of users have spent 10hours or more continuously in the game
- Age is not correlated with usage( $r=.04$ )
- 80% of players play with someone they know(friend, familymember, or romantic partner)



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**NICK YEE**  
**Stanford**

No one kind of player, but you can cluster into groups:  
**Achievement**  
 power, accumulation, power over others, power is knowledge over the game  
**Socialization**  
 a large chat room, make friends (inworld and RL), working in groups to achieve  
**Immersion**  
 discovering, role-playing, customization of character, escapist motivation



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Gaming  
Serious Games  
Edutainment  
Edugaming

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***"You can learn more about  
a man in one hour of play  
than in one year of  
conversation"***

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Interestingly I often see young kids asking current event questions, and other "adult" discussion issues during chat in WoW. I also see a lot of families online where a son or daughter helps a parent level up a character. It must make for interesting family dinner talk "Mom I got you to level 42 today!" or "Johnny did you sell Daddy's Greaves of the Bear this morning?!?!?!"

- Ben Sawyer – SeriousGames promoter?

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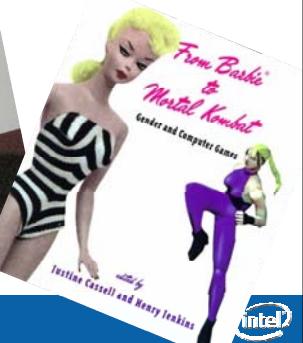
Anyone who makes a distinction between games and learning doesn't know the first thing about either.

—Marshall McLuhan

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**Henry Jenkins**  
MIT, Director of Comparative Media Studies



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**James Paul Gee**  
University of Wisconsin-Madison



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## Constance Steinkuehler University of Wisconsin-Madison

## **MMOG Lead Faculty**

Massively multiplayer online videogames (MMOGs) function as naturally occurring online learning environments, recruiting complex and sophisticated forms of (always situated, always distributed) cognition in the course of successful play.



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#### **Kids play computer games \*regularly\***

- Ages 2-7 play ~43 minutes/day
  - Ages 8-12 play ~56 minutes/day
  - Ages 13-17 play ~78 minutes/day  
(Gentile & Walsh, 2002)

**\*Most\* kids play computer games**

- 92% of kids ages 2-17 play video and computer games  
(National Institute on Media and the Family, 2001)

**\*Low income\* kids play computer games at home**

- Game play is their primary reason for using computers (Jackson et al., 2005)

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### **WOW DEMO**



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**SECONDLIFE DEMO**

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I believe learning  
comes from passion,  
not discipline.

Nicholas Negroponte, MIT Media Lab

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- Literature on school improvement is full of exhortations to make the content of instruction "relevant." ... But if one does belong to a culture in which video games are important, transforming oneself from a consumer to a producer of games may well be an even more powerful way for some children to find importance in what they are doing.
  - Preface by Seymour Papert to Minds in Play by Yasmin Kafai
- "Games are thus the most ancient and time-honored vehicle for education. They are the original educational technology, the natural one, having received the seal of approval of natural selection. We don't see mother lions lecturing cubs at the chalkboard; we don't see senior lions writing their memoirs for posterity. In light of this, the question, "Can games have educational value?" becomes absurd. It is not games but schools that are the newfangled notion, the untested fad, the violator of tradition. Game-playing is a vital educational function for any creature capable of learning."
  - Crawford, The Art of Computer Game Design
- "The computer is a medium of human expression and if it has not yet had its Shakespeares, its Michelangelos or its Einsteins, it will... We have scarcely begun to grasp its human and social implications."
  - Computer Criticism vs. Technocentric Thinking By Seymour Papert
- "The mind is not a vessel to be filled but a fire to be kindled."
  - Plutarch (46 - 127)

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## A Corporate Learning Look at Games



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## Who Are We?

### Experienced Corporate Learners & Gamers

- Mark Oehlert  
Former Director of Learning Innovations at the MASIE Center now at Booz Allen Hamilton Global Consulting Firm
- Brent Schlenker  
Learning Consultant, Intel University researching/developing/advocating virtual training simulations since 1995

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### How Do We Know What We Know?

- Worked with a group of Fortune 500 companies who were examining how to use gaming in corporate environments.
- Worked within Intel trying to implement game-based learning initiatives.
- Worked with U.S. federal government and Dept. of Defense clients implementing game-based learning



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### LearnLand

- The MASIE Center (a small think-tank focused on corporate clients) wanted to help corporate learning developers explore a variety of gaming environments.
- The companies involved are some of the largest on the Fortune 500 (approx. 40 companies were involved).
- The intent was to allow the group to access a risk-free gaming sandbox.



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### LearnLand – The Private Island

- The first experiment in LearnLand was a private island in Second Life bought by the MASIE Center.
- A critical difference is that instead of briefings, this actually involved senior learning leaders in the actual environment.
- As part of the Learning 2005 conference, we opened the island to all the conference attendees.



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### LearnLand – The Lessons

- Don't forget even the smallest things – like how to navigate.
- Don't underestimate the negative connotation that the word "games" still carries in the corporate world.
- Don't underestimate the technical issues even on something as low threshold as Second Life.
- Don't forget – the project MUST answer a pain.



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### LearnLand-The Lessons-Part 2

- ROI, ROI, ROI
- Low-threshold products
- Flash is and will be the dominant platform
- HUGE need for hybrid designers (instructional and game designers)
- Pricing
- Do you know what **SCORM** is?
- They have room for just about one try.
- Think mobile
- Does it talk to the LMS?



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### Intel – same ol' song

- Do more...
  - with less workers
- Train them faster...
  - on more stuff
- Make them into problem solvers...
  - not just button pushers



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## **Early Sim Learnings (1995-2000)**

- THIS STUFF WORKS...
    - Quick story [diffusion furnace]
    - 25+ step process trained in <60mins.
    - No factory experience
    - ZERO errors - first try
    - You must EXPERIENCE the environment
  - ...almost TOO good!
    - Quick story [getting it wrong in warehouse sim]

{Superscape VRT, VB6+ActiveX, Director3D}



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A screenshot of the Factory Tool PACK software. The interface includes a blue sidebar on the left with buttons for 'NAVIGATE', 'CREATE', and 'DESIGN'. Below these are two sections: 'Click here to begin items.' with a pencil icon, and 'Learning Options' with three radio button options: 'A Teacher', 'Guided', and 'On Your Own'. At the bottom of the sidebar is the Intel logo. The main area shows a 3D rendering of a classroom environment. A green shelving unit on wheels is positioned near a desk with a computer monitor displaying a blue screen. There are also green trash cans in the background. A red banner at the top of the main window contains the text: 'You clicked the wrong object. Click the either TRAY 1, TRAY 2, or the TRAVELER to make them all fit the workstation. REMEMBER: The window on the left displays the name of the object under your cursor.'

The screenshot shows the BSET Factory Tool window. The title bar says "BSET Factory Tool [BSETAL.PSI] - Pack". The menu bar includes File, Edit, Tools, Processes, Pack, Window, Help. The toolbar has icons for New, Open, Save, Print, etc. A status bar at the bottom right shows "Ready", "TAPN03", "PCT1", "Primary", and the date "10/25/01 02:06:30 PM".

The main area displays a packing list:

Packing Requirements	Actual	Allowable
BEST INTERNAL SITE AGE	B2 W03 MAXIMUM	B2 (INTERNAL) ALLOWED
STEP9999	B2 (INTERNAL) ALLOWED	B2 (INTERNAL) ALLOWED
STEP9990	B2 (INTERNAL) ALLOWED	B5 (INTERNAL) ALLOWED

Below the table is a "Verify Box ID" button. To the right, there's a graphic of a cardboard box with an "intel" logo and a "STD LABEL" label. A callout bubble points to the "STD LABEL" with the text "Order size of 1, put units in 1 STD box, no stack overlap".

### What we need from Gaming industry

- quick, inexpensive wins
- GAME AUTHORIZING tools
- Simple, simple, simple (to use)
- Fidelity does NOT matter in process training



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### Areas of Opportunity – What's Next

- Marketing – IT Manager, CrimeScene
- Simulations are already designed
  - Live 3-5 day classroom "simulations"
- Any simplified high-level physical process
  - Manufacturing processes
  - Warehouse process
  - Ground Control (decision making)
- Intel Education – 10 million teacher mandate



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### One more little market...U.S. Federal and Dept. of Defense

- There is great interest in game-based learning / Serious Games efforts in this space but not much product leadership.
- Similar in many ways to corporate market (the effort can't fail, need low thresholds, etc.)
- Different in timing (takes longer) and potential scaling issues.
- Also different in that it can be hard to find your way around the government market.



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### **One more little market...U.S. Federal and Dept. of Defense**

- DoD is also realizing that most of what it does is not combat. They need the next great acquisition game.
- The government will also look for extensive rights over applications or content that it pays to have developed.

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### **Summary**

- On-ramping and hand-holding
- Low thresholds
- Think of partnering
- Learn their parlance and their pain

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- [Online Gaming attracts more women than men](#)
- [Two-thirds of online gamers are female - report](#)

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