Three-dimensional Online Virtual Worlds: An Opportunity to Expand the Horizons of Health Promotion

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Presentation Outline

I. Demographic Characteristics of Internet Users

II. Health and the Internet

III. Terminology

IV. Existing 3-D Virtual Communities

V. Opportunities for Expansion of 3-D Virtual Worlds in Health Promotion

VI. Challenges

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Why Virtual Worlds?

1. Who is represented in the virtual environment?

2. What behaviors are virtual residents engaging in?

3. Are these behaviors representative of real world behaviors?

4. What are the opportunities for using virtual worlds in health promotion?

Demographics of Internet Users
(N=2,200)

Gender	%
Women	70
Men	71
Total Adults	71

Demographics of Internet Users (con't)
(N=2,200)

Age	%
18-29	87
30-49	83
50-64	65
65+	32

Pew Internet & American Life Project

Demographics of Internet Users (con't)
(N=2,200)

Race/ethnicity	%
White, Non-Hispanic	73
Black, Non-Hispanic	62

Demographics of Internet Users (con't)
(N=2,200)

Household Annual Income	%
Less than $30,000	55
$30,000-$49,999	69
$50,000-$74,999	82
$75,000+	93

Pew Internet & American Life Project

Demographics of Internet Users (con't)
(N=2,200)

Educational Attainment	%
Less than high school	40
High school	61
Some college	81
College+	91

What percentage of American Internet users have searched for information on at least one health topic?

80%

What percentage of searchers say they "always" check the source and date of the information they find online?

15%

Terminology

- **Virtual world**—a computer-based simulated environment intended for its users to inhabit and interact via avatars

- **Avatars**—a 3-D representation of an internet user; a customizable digital body that serves as one's virtual identity

- **MMORPGs**—Massively multiplayer online role-playing games

Virtual Worlds...

Allow for real-time creation of 3-D objects and in-world collaboration with others

Existing 3-D Virtual Communities in the Health Arena

- *River City*—students explore public health issues in a simulated 19th century town
- *Whyville*—virtual world for 8-11 year olds
- *Second Life*—networked virtual environment created and evolved by its residents
  - CDC virtual office
  - ACS
  - Live2give Island
  - Brigadoon

Second Life

- Consists of a multitude of individual *islands*

  - Islands are parceled into pieces of *land* which can be sold individually

    - *SL* residents can erect *buildings* on their land

      - Avatars build their own *communities* within *SL* by creating "groups" and making "friends"

Second Life Resident Activity

Residents Logged-In During Last 7 Days	441,550
Residents Logged-In During Last 14 Days	605,066
Residents Logged-In During Last 30 Days	880,212
Residents Logged-In During Last 60 Days	1,412,534
Total Residents	10,471,631

Potential Opportunities for Virtual Worlds in Health Promotion

- Presenting health information

- Teaching field research
  - Health communication in practice

- Enhancing the learning environment
  - Infectious disease outbreaks and epidemics

Potential Opportunities for Virtual Worlds in Health Promotion (con't)

- **Studying (risk) behavior**
  - Virtual laboratory experiments

- **Simulation platform for emergency response exercises**
  - Interactive role playing
  - Team training

Challenges

- Limited published empirical work
- Intended audiences (diversity?)
- Access
- Ethical issues
  - Informed consent
- Avatar as representative of "self"

Conclusions

- Virtual worlds develop themselves through their own communities

- Need to adapt to an ever changing world

- Meet the needs of our target populations by tailoring our efforts and exploring new ways to promote health and prevent, treat, and cure disease

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Discussion/Questions