



University of Plymouth



7 - 9  
December 2007  
Algarve, Portugal

Cognition and Exploratory Learning in Digital Age

IADIS INTERNATIONAL  
CONFERENCE

CELDA 2007

A presentation by:

Maged N Kamel Boulos, PhD

[mnkamelboulos@plymouth.ac.uk](mailto:mnkamelboulos@plymouth.ac.uk) - <http://sl-sexualhealth.org.uk/>

# THE UNIVERSITY OF PLYMOUTH SEXUAL HEALTH SIM IN SECOND LIFE

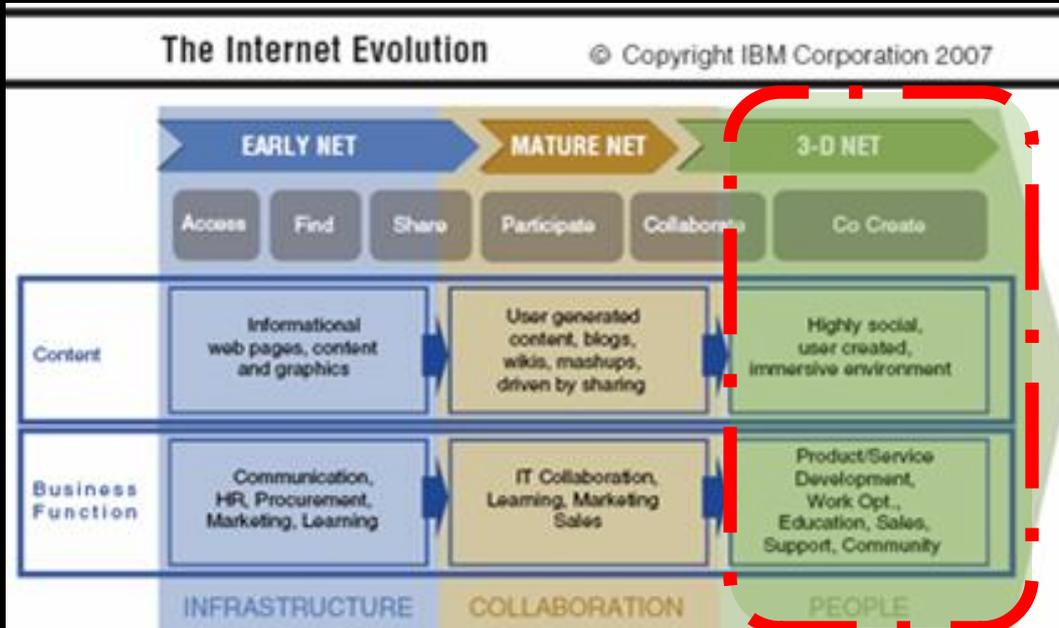
# Agenda



*Your World. Your Imagination.*

- Introduction
  - 3-D virtual worlds are the next major iteration of the Internet
  - Second Life: virtually endless educational possibilities
- The University of Plymouth Sexual Health SIM project in Second Life
  - Tour ([machinima/SLurl](#))
- Concluding notes
  - Bibliography

# The next major iteration of the Internet



[http://domino.research.ibm.com/comm/research\\_projects.nsf/pages/virtualworlds.index.html](http://domino.research.ibm.com/comm/research_projects.nsf/pages/virtualworlds.index.html)

**Metaverse 1.0 Consortium** includes over 40 participants of large and small/medium enterprises as well as several research institutes and universities from 8 participating countries. Among the participants are IBM, Philips, Forthnet, Alcatel-Lucent, Telefonica I&D, Siemens IT,

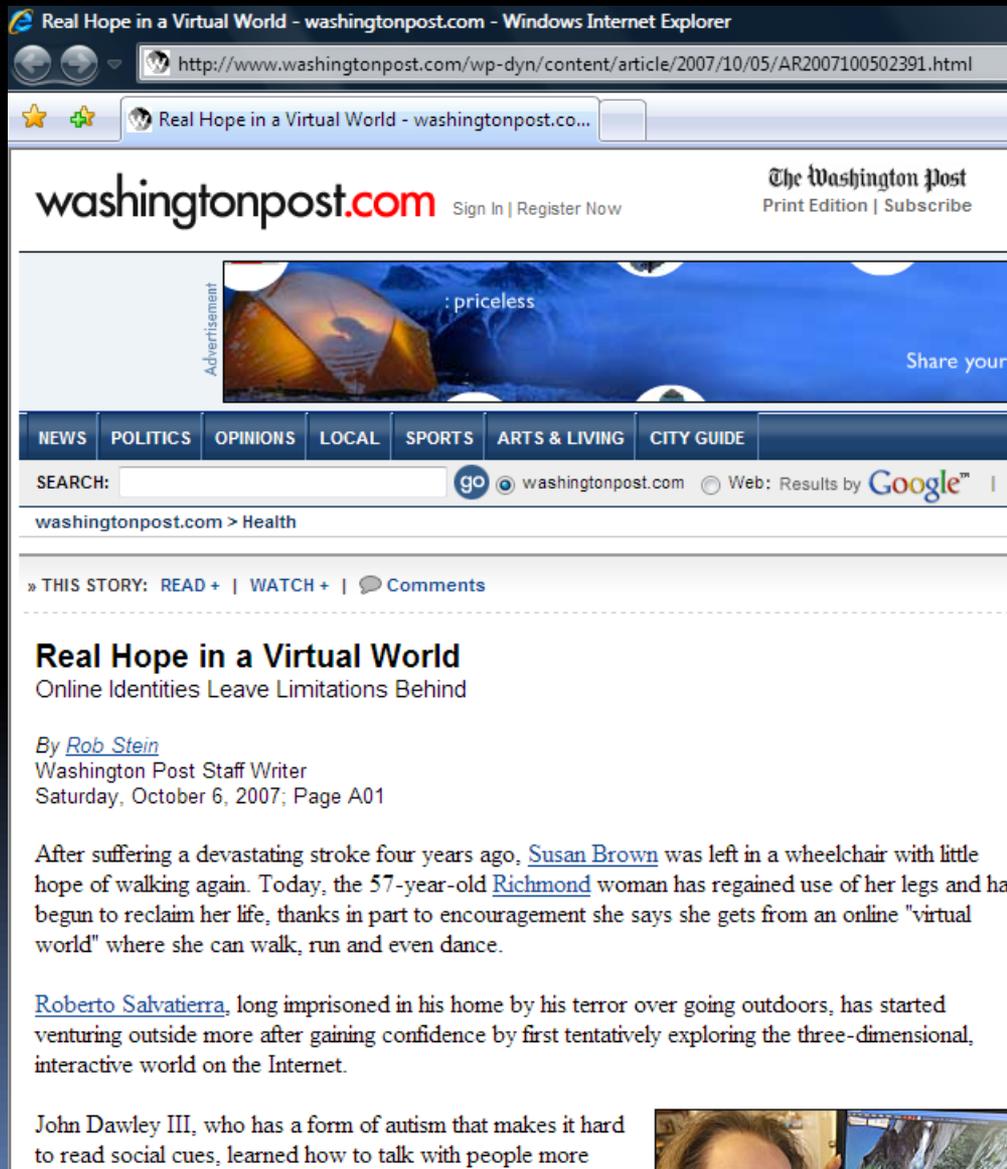
Barco, Geosim Systems Ltd., Technical University Eindhoven, Utrecht University, Technical University of Twente, Fraunhofer Rostock, Nazuka and Bertelsmann.

Metaverse 1.0 will provide a **standardized global framework enabling the interoperability between various Virtual Worlds** (e.g., Second Life, HiPiHi, Google Earth, and many others) and **between them and the Real world** (sensors, actuators, vision and rendering, social and welfare systems, banking, insurance, travel, real estate and many others—cf. 'Mixed Reality' concept).

The Metaverse 1.0 framework will be mainly driven by a set of **selected application domains**, including training, learning and simulation, eInclusion, and support for elderly, disabled and minorities, among other domains.

(Adapted from <http://www.lostinthemagicforest.com/blog/?p=43>)

# Second Life: virtually endless educational possibilities (1)



The screenshot shows a Windows Internet Explorer browser window displaying the Washington Post website. The address bar shows the URL: <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/05/AR2007100502391.html>. The page header includes the Washington Post logo, navigation links for 'Sign In' and 'Register Now', and options for 'Print Edition' and 'Subscribe'. Below the header is a navigation menu with categories: NEWS, POLITICS, OPINIONS, LOCAL, SPORTS, ARTS & LIVING, and CITY GUIDE. A search bar is visible with the text 'SEARCH:' and a 'go' button. The main content area features the article title 'Real Hope in a Virtual World' with a sub-headline 'Online Identities Leave Limitations Behind'. The byline reads 'By Rob Stein, Washington Post Staff Writer, Saturday, October 6, 2007; Page A01'. The article text begins with 'After suffering a devastating stroke four years ago, Susan Brown was left in a wheelchair with little hope of walking again. Today, the 57-year-old Richmond woman has regained use of her legs and has begun to reclaim her life, thanks in part to encouragement she says she gets from an online "virtual world" where she can walk, run and even dance.' A second paragraph starts with 'Roberto Salvatierra, long imprisoned in his home by his terror over going outdoors, has started venturing outside more after gaining confidence by first tentatively exploring the three-dimensional, interactive world on the Internet.' The bottom of the screenshot shows the start of a third paragraph about John Dawley III and a small image of a person's face.

## Real Hope in a Virtual World

(Washington Post – 6 October 2007):

“Because the full-colour, multifaceted nature of the experience offers so much more ‘emotional bandwidth’ than traditional Web sites, e-mail lists and discussion groups, users say the experience can feel astonishingly real.”

# Second Life: virtually endless educational possibilities (2)

The 'Second Life in Education' wiki (<http://sleducation.wikispaces.com/educationaluses>) lists 32 educational uses of 3-D virtual worlds, including but not limited to (*italics ours*):

1. Distance and Flexible Education
2. Presentations, Panels and Discussions (*unlike conventional video conferencing over the Web, virtual worlds offer and add: (a) emotion/pseudo-body language communication to meetings (thanks to sophisticated, highly customisable avatars — closer to face-to-face contacts, but less "threatening"/with more "protection" for those needing this), as well as (b) a shared pseudo-physical 3-D space that can be used in a variety of ways*)
3. Training and Skills Development
4. Self-paced Tutorials
5. Displays and Exhibits
6. Immersive Exhibits
7. Roleplays and Simulations

# Second Life: virtually endless educational possibilities (3)

8. Data Visualisations and Simulations
9. Libraries, Art Galleries and Museums
10. Multimedia and Games Design
11. Machinima (*video clips produced entirely in Second Life*)
12. Treasure Hunts and Quests
13. Virtual Tourism, Cultural Immersion and Cultural Exchange
14. Language Teaching and Practice, and Language Immersion
15. Awareness/Consciousness Raising and Fund Raising (*e.g., the American Cancer Society*)
16. Support and Opportunities for People with Disabilities
17. Business, Commerce, Financial Practice and Modelling
18. Real Estate Practice
19. Product Design, Prototyping, User-testing and Market Research
20. *And much more...*

# The University of Plymouth Sexual Health SIM project in Second Life

- **Lead investigator:** Maged N. Kamel Boulos (UoP Faculty of Health and Social Work)
- **Co-investigators:** Steve Wheeler (UoP Faculty of Education) and Susan Toth-Cohen (Thomas Jefferson University, USA)
- **Land grant provided by:** Education UK (July 2007 – 31<sup>st</sup> July 08) <http://sleducationuk.net/?q=node/14>
- **Project Web site:**  
<http://sl-sexualhealth.org.uk/>  
(Web site hosting also provided by Education UK Island)



# Community ♦ In-world seminars

## ♦ Sexual Health SIM Group in-world



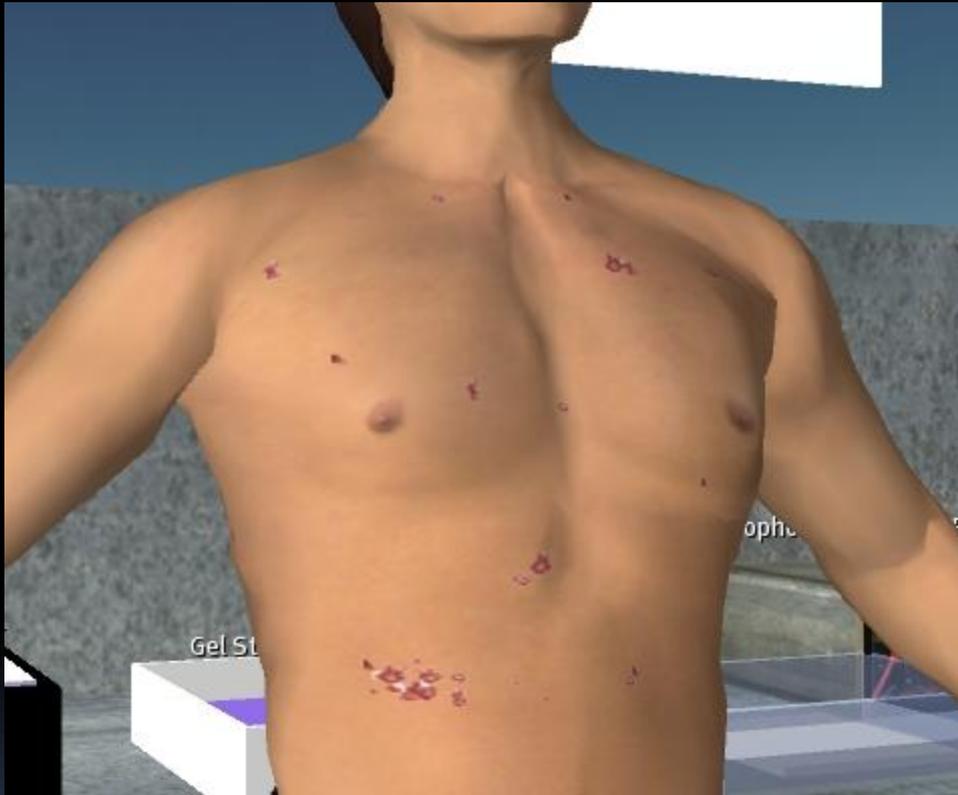
Avatars attending a seminar at the University of Plymouth Sexual Health SIM in Second Life

# Wear a skin disease!

Independent learning

Exploration and discovery

- ◆ Interactive objects
- ◆ Special experiences



Don't miss our **AIDS-related Kaposi Sarcoma Experience** in Second Life: Now you can now wear a special clothing layer to see and experience *on your own avatar* how Kaposi Sarcoma looks/feels in AIDS patients – read more at <http://sl-sexualhealth.org.uk/?p=84>

# Tour of UoP Sexual Health SIM in Second Life

Machinima video and/or SLurl (in-world):

<http://slurl.com/secondlife/Education%20UK/33/63/22>



# Concluding notes (1)

- Second Life (<http://secondlife.com/>) represents a relatively new 3-D virtual learning environment that has not been fully tested yet, and in which there is enormous potential for the development of creative and dynamic educational experiences.
- Second Life is a unique **3-D social networking** experience. It allows people from all over the world to meet, share objects and collaborate in many novel ways, using a comprehensive and well-integrated suite of **asynchronous and synchronous multimodal communication tools**.
- Second Life can also be seen as a vast **collaborative 3-D “wiki”** and an **immersive audio-visual spatial experience** that users can experiment with, edit, and see the changes in real time!

# Concluding notes (2)

- 3-D virtual worlds are rapidly getting more and more accessible and user friendly (esp. for people with cognitive and/or physical disabilities). They are here to stay, mature, and eventually become one with, and more tightly and seamlessly integrated into, the flat (2-D) Web and the 'real world'/our daily lives over the coming months and years (forming the 3-D Internet).



**IDEAS from IBM** 

09 January 2007

**Five innovations that will change the way we live over the next five years**

The Internet moves to the 3rd dimension

**GO**

[http://www.ibm.com/ibm/ideasfrom/ibm/us/five\\_in\\_five/010807/images/Fiveinnov\\_010807.pdf](http://www.ibm.com/ibm/ideasfrom/ibm/us/five_in_five/010807/images/Fiveinnov_010807.pdf)

# Bibliography

- Kamel Boulos, Maged N, Hetherington L, Wheeler S. Second Life: an overview of the potential of 3-D virtual worlds in medical and health education. *Health Information and Libraries Journal*. 2007 Dec;24(4):233–245  
<http://www.blackwell-synergy.com/doi/abs/10.1111/j.1471-1842.2007.00733.x>
- Kamel Boulos, Maged N, Burden D. Web GIS in practice V: 3-D interactive and real-time mapping in Second Life. *International Journal of Health Geographics*. 2007 Nov; 6:51  
<http://www.ij-healthgeographics.com/content/pdf/1476-072X-6-51.pdf>  
(covers the future 3-D Internet and the convergence of 3-D virtual and mirror worlds)
- Given the very rapid developments in this field, the above papers have a free, regularly updated online companion: '3-D Virtual Worlds in Medicine and Health', a research and media watch resource <http://healthcybermap.org/sl.htm>

# Thank you!

Second Life

Press ESC to leave Mouselook.

Education UK 7, 36, 22 (Mature) - University of Plymouth

- Questions?