

Virtual Worlds:

History, Current Status, and Possibilities for LMU

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I. Historical Context

A. Three Iterations of the World Wide Web

Time	Iteration	Name	Function	Pivotal Event(s)
Mid-1990's	WEB 1.0	The Informational Web	Access information via static Web pages	1993 Netscape Navigator
Early 2000's	WEB 2.0	The Interactive Web	Promote interaction via Blogs, IM, Chat, Wikis, Social Networks	2001-2003 MySpace fastest growth in history -- 1 - 100 million
Mid-Late 2000's	WEB 3.0 or WEB 3D	The Immersive Web	Create 3D Spaces to Socialize, Work, Learn	2004-2006 World of Warcraft; Second Life

B. The Second Big Bang: A Brief Chronology of the Birth of the Metaverse

Year	Development	Notes
Late 1970's	<ul style="list-style-type: none"> • First M.U.D. (Multi-User Dungeon) developed at Essex University • First M.U.S.H. Developed (Multi-User Shared Hallucination) 	<ul style="list-style-type: none"> • M.U.Ds Precursor to all Virtual Games • MUSH's exploratory space of academics for collaborative creativity; Precursor to Virtual Worlds
1987	Habitat by Lucas Arts	First commercial attempt at on-line world. Slow, Primitive
1990's	Experiments with headsets and forced-feedback gloves to create virtual experience	Term "Immersive" enters the high-tech lexicon.
1992	<i>Snowcrash</i> , novel by Neil Stephenson, published	Introduced concept of on-line world: "The Metaverse"
1997	Electronic Arts releases Ultima Online	Major advance in 3D graphics

B. The Birth of the Metaverse Continued

Year	Development	Notes
1998	There.com	Revive non-game M.U.S.H. genre. Socialize in 3D spaces (e.g. clubs). Some user-created content.
1999	Sony releases EverQuest	Major advance in 3D graphics even from Ultima Online.
2001	Cal. State Fullerton Economis Professor, Edward Castronova, publishes first academic paper on virtual worlds (on EverQuest economy)	Academic study of virtual world begins.
2003	Stanford's Virtual Human Interaction Lab founded.	Interdisciplinary project between Psychology and Communication Studies.
2003	Second Life is Launched by Linden Labs in SF.	User-created content. Land fees vs. subscriptions

B. The Birth of the Metaverse Continued

Year	Development	Notes
2004	World of Warcraft released Millions subscribe worldwide Generates \$75 million per month in revenue.	Virtual gaming becomes a mainstream commercial enterprise.
2006	Business Week runs cover story on 1 st millionaire in Second Life	Businesses and corporations take note. Major migration begins including IBM, Dell, Reuters, NBA, Harvard, Ohio State, Univ. of Texas, and hundreds of others. The Metaverse is Born

II. Current Status and Future Prospects

A. Current Statistics on Second Life

- 13 million registered "Avatars" (i.e., digital representations of a human controller.)
- More avatars worldwide than e-mail accounts in 2000; doubling faster than e-mail
- 1 million frequent users (up from 25,000 4 years ago.)
- 30% in US; 30% EU; 30% Asia; 10% South America
- Global Research Institute projections:

By 2011, 80% of Fortune 500 companies will have a presence in SL

Minimal Usage Estimates: 3-5 million frequent users

Maximum Estimates: Hundreds of millions of frequent users, Major new Net-Driven channel of communication and interaction

B. Reason for Positive Projections

Optimism that all 3 Key Issues for Progress can be resolved:

1. **Improved technology** to handle massive increases in information and infrastructure loads without lags and/or frequent server crashes.
3. **Continued Interface Development.** Audio vs. text communication added in late 2007; Visual realism will improve dramatically ; Kinesthetic realism will also advance. The gap between the visceral and virtual world will be narrowed significantly.
3. **Authentication Issues.** Ability to verify identity of an avatar's human controller and discriminate between human-driven and machine-driven (artificial intelligence) bots. Crucial issue for businesses and real-world transactions. Solved via use of multiple avatars. One for real-world transactions; one or several for anonymous role-plays/identity variations.

C. Other Projections

1. **Pervasive Access to Virtual Worlds.** Individuals will enter Second Life and other virtual worlds through the Web (versus software housed on a computer). Linden Labs is promoting this development by Open Sourcing its Code. This will enable access via computers, cell phone, PDAs, game consoles, etc.
2. **The Mixed Reality State.** Individuals will spend time, seamlessly divided, between the visceral world and compellingly authentic 3D graphical spaces. They will communicate and interact in 3D digital environments vs. talk on the phone, text, IM, or e-mail.

III. Possible Applications for LMU

Conduct research on cutting edge issue of Virtual Reality and Virtual Worlds

1. The P.R.O.S.E. Project
(Psychological Research on Synthetic Environments)
2. LMU Multidisciplinary Institute for Virtual Studies

LMU Institute for Virtual Studies: Multidisciplinary Possibilities

College/School	Departments	Notes
Business	Marketing/Advertising	
Communication and Fine Arts	Graphic Design and Multimedia	3D Modeling
Film and Television	Screenwriting/Production of "Machinimas"	Low Production Costs; HBO bought first Machinima in 2007.
Law	Rights of Avatars; Dispute Resolution; Intellectual Property Rights	American Bar Association has presence in SL in 2008.
Liberal Arts	Psychology, Sociology, Economics, Political Science, Theology, Urban Studies, Philosophy.	Urban Studies – energy; Poli Sci – campaigns, social justice (e.g., Camp Darfur); Theology- Virtual church

Implementation

- Much of the P.R.O.S.E. Project and/or the Institute of Virtual Studies could be constructed and operate in Second Life.
- Either entity could contain lab space, classrooms, offices, conference centers –any architectural configuration needed or desired – at a very low cost.

A Demonstration...