

The slide features a dark blue background with abstract, glowing human silhouettes in shades of orange, yellow, and light blue. The IBM logo is positioned in the upper right corner. The main title is centered in a large, bold, yellow font, and the speaker information is located in the lower left quadrant.

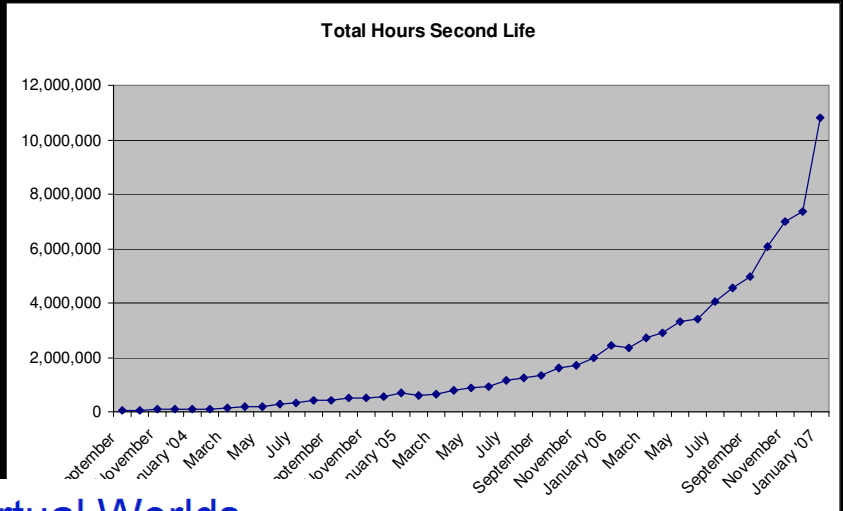
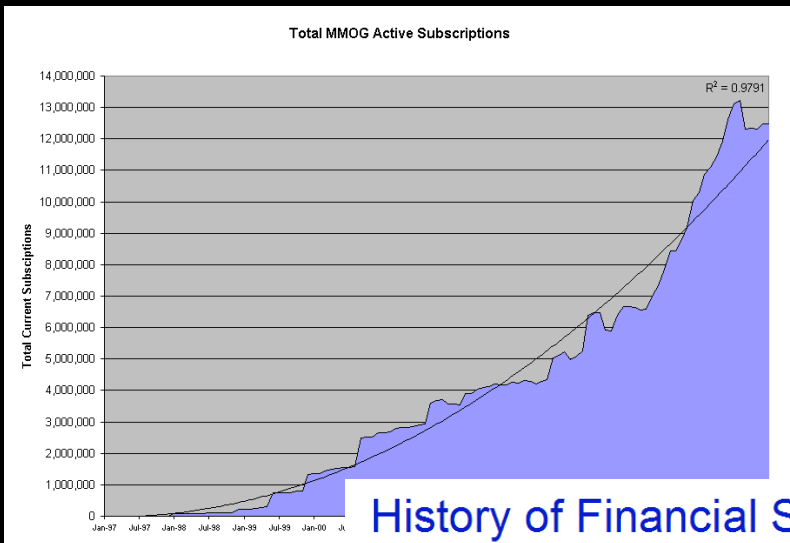
IBM and Virtual Worlds



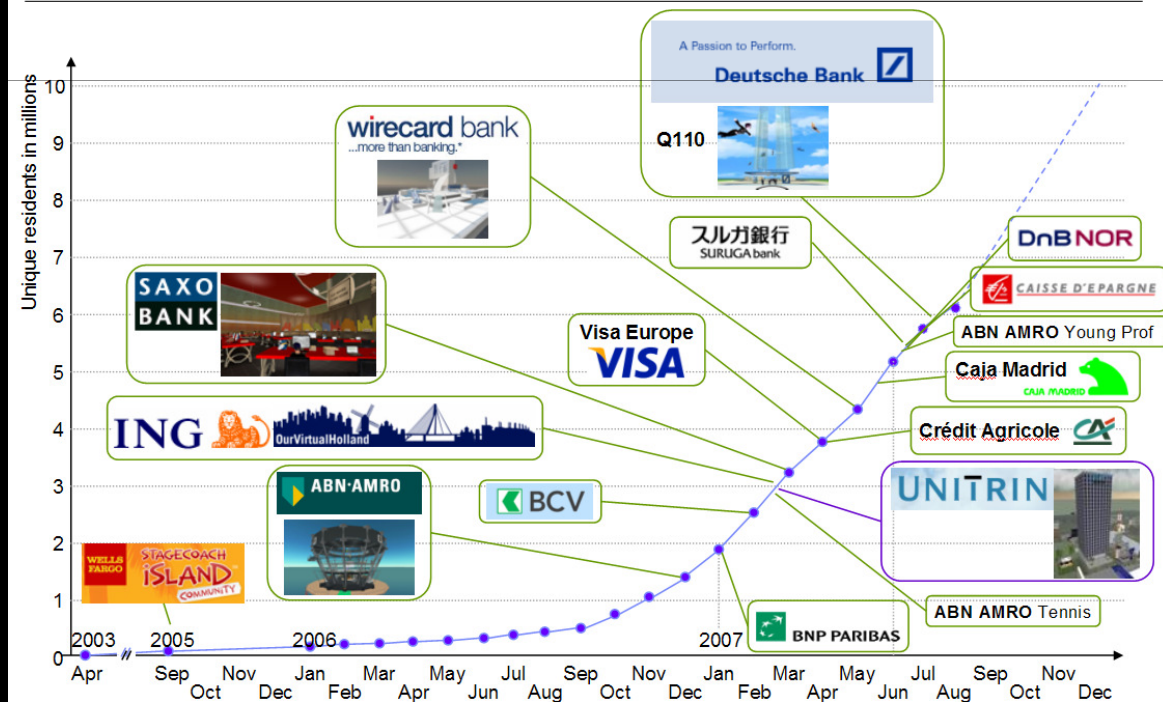
Innovation in Virtuellen Welten und Anforderungen an die Technische Infrastruktur

Boas Betzler
IBM Research
November 21, 2007

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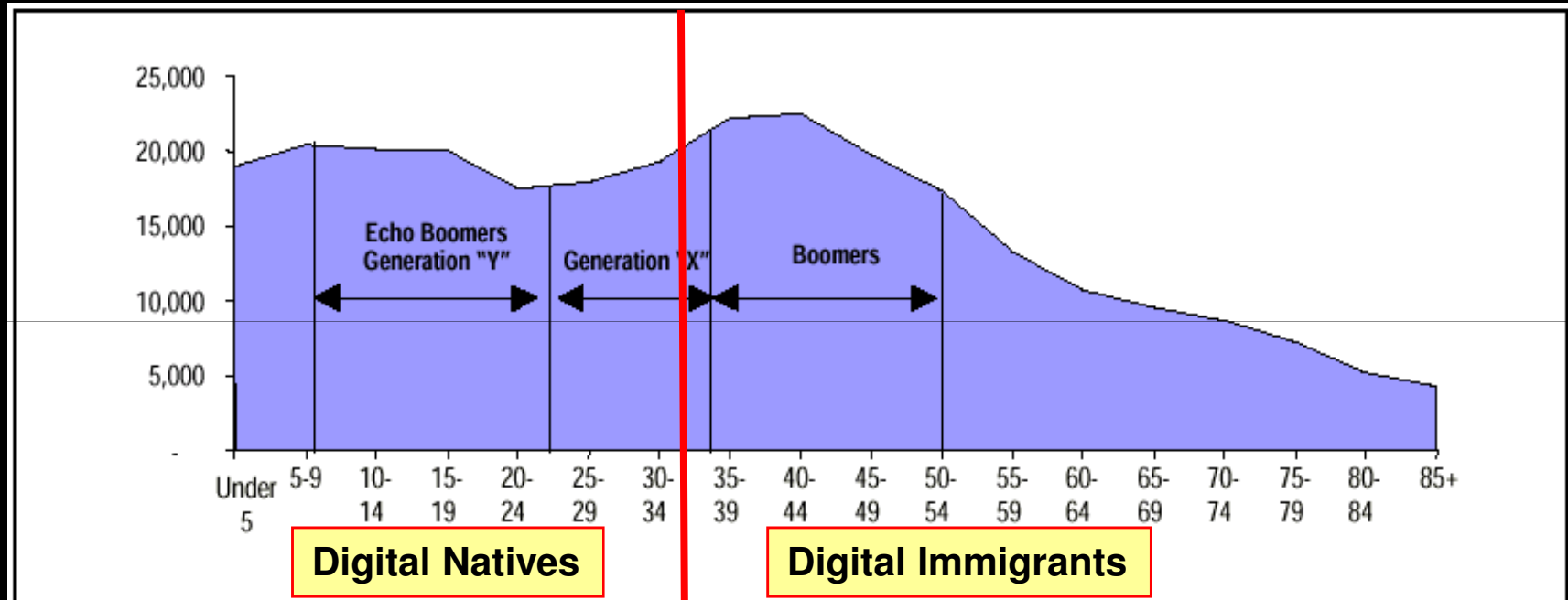


History of Financial Services in Virtual Worlds



Demographics and the Digital Divide

The new generation is huge, 90 million people in the US alone. Already there are more of them around than there are baby boomers. Beck and Wade



- 81% of the business population age 34 or younger are gamers
- 56 million are old enough to be employees
- 7 million are already managers in the current workforce

Sources: Merrill Lynch 1999, Beck and Wade, Got Game., Prensky, Digital Game Based Learning

Perspective: Social Translucence

- A Tale of Two Doors
 - A door
 - A problem
 - Two types of solutions

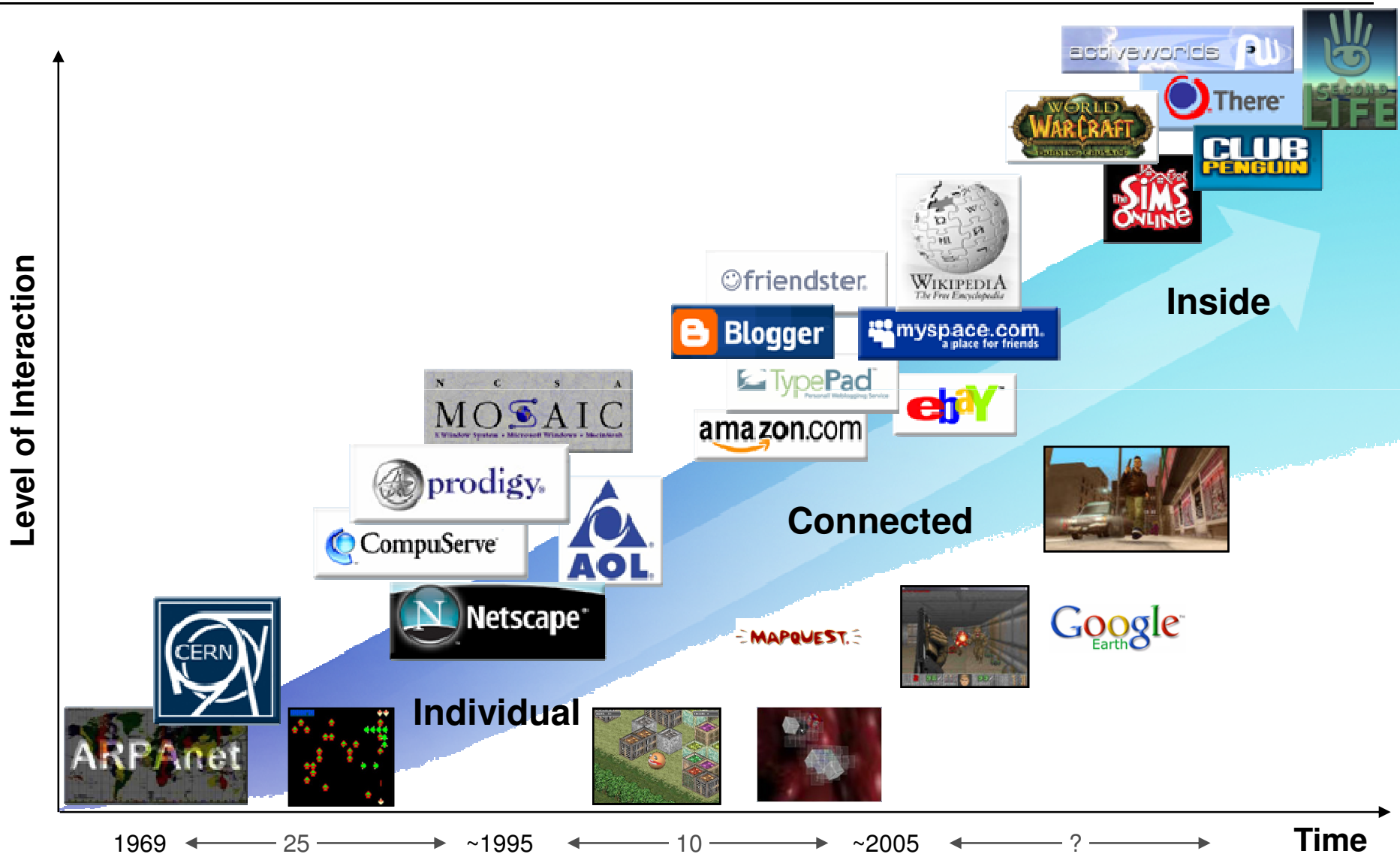


Perspective: Social Translucence

- Why the glass window works...
 - **Perceptual cues** engage us in a way that text doesn't
 - **Awareness** brings social rules into play
 - **Accountability**: I know that you know that I know
- We call systems that do this “socially translucent” systems
 - Ubiquitous in the real world
 - Rare in the digital world

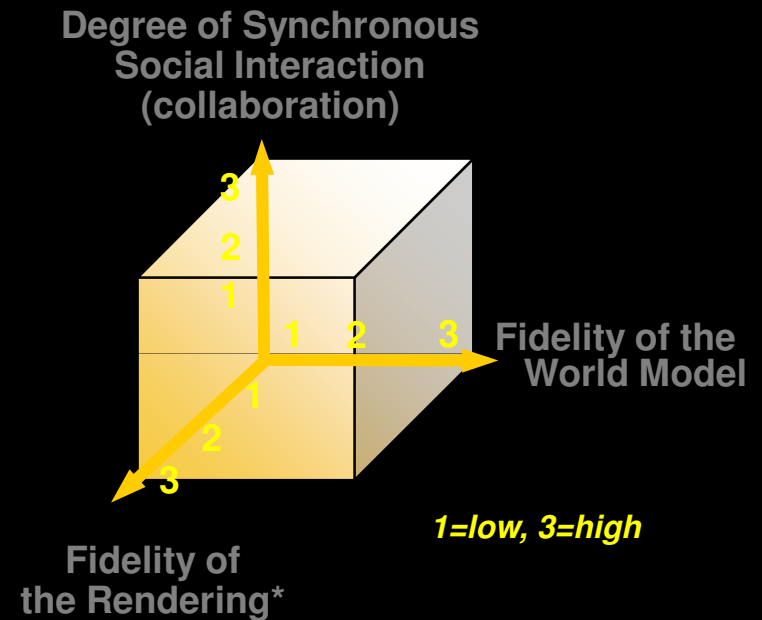


Towards 3-D Internet



The quality of the user experience in a virtual world is a combination of the fidelity of the world rendering, the degree of real-time social interactivity and fidelity of the world model

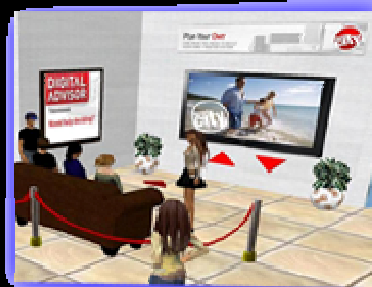
- The immersiveness of the experience for the user is a factor of all three qualities
- Synchronous social interactivity in a *natural* and *compelling* environment is a major customer value
- The hardware and network is now capable of supporting a high level of experience for the user, and is expected by the consumer
- Fidelity of rendering and social interactivity are increasingly commoditized
 - future investment going forward will be in increasing the fidelity of the model, supported through simulation



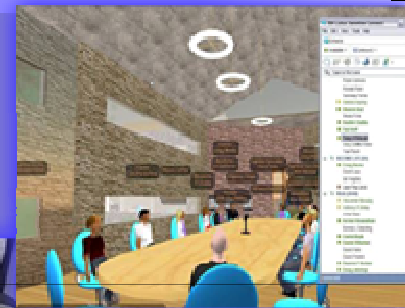
* rendering here means visual, aural and other senses such as haptic feedback

Early Virtual Worlds Business Applications

Commerce



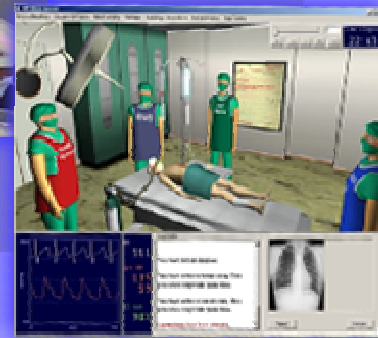
Collaboration and Events



Education and Training



Other Emerging Applications



Internal - External

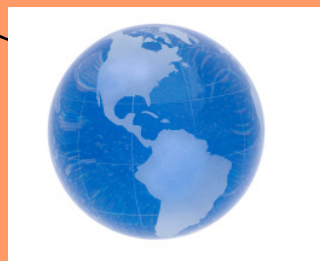
Metaverse



Internet

Extraverse

Intraverse A



Intranet

Intraverse B



Intranet

Early Adopters – Banking

- *Deutsche Bank wanted to promote its future model of branch banking and explore new ways of interacting with clients online.*
- *The bank needed an experimental platform to bridge the gap between real and virtual worlds, enabling it to gain experience in new modes of interaction*



- *Innovative approach to finding new ways of connecting with clients on a more emotional level*
- *This branch gives a glimpse of how branch banking may look in the future*

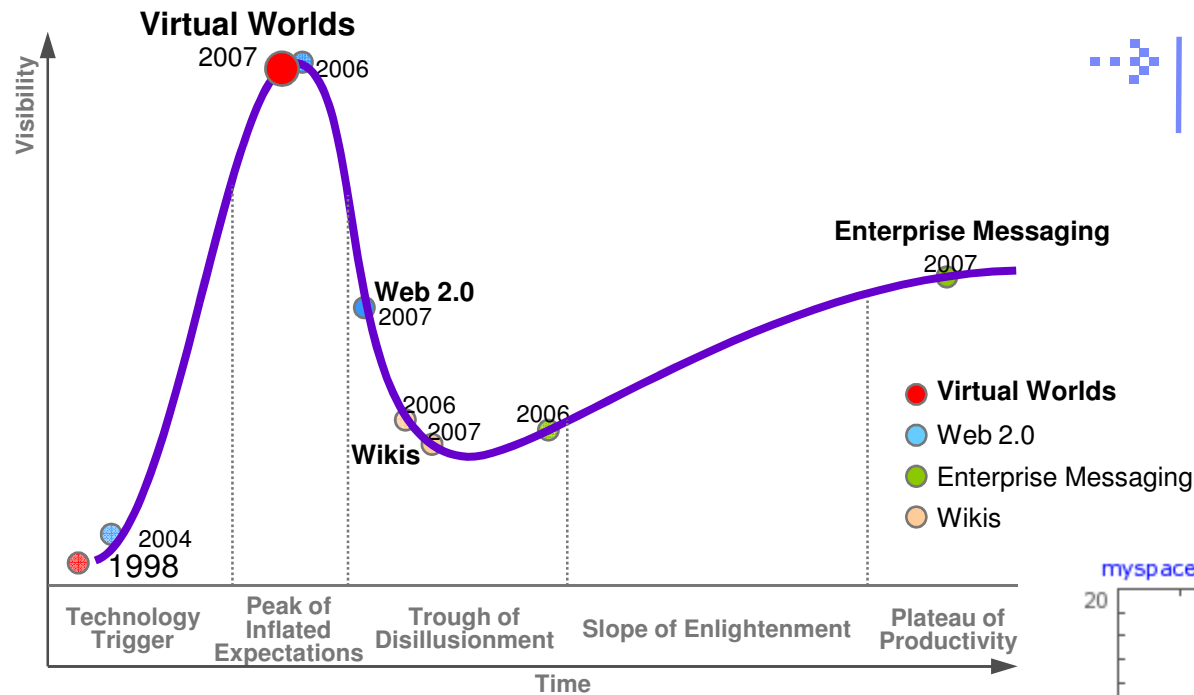


Early Adopters – B2B

- *businessMart develops and operates some of the largest and most successful e-business platforms in Europe. Through these venues, the company helps approximately 133 manufacturers and 7,500 dealers process as many as 506,000 transactions each month.*



Where do we stand on the Hype Curve?

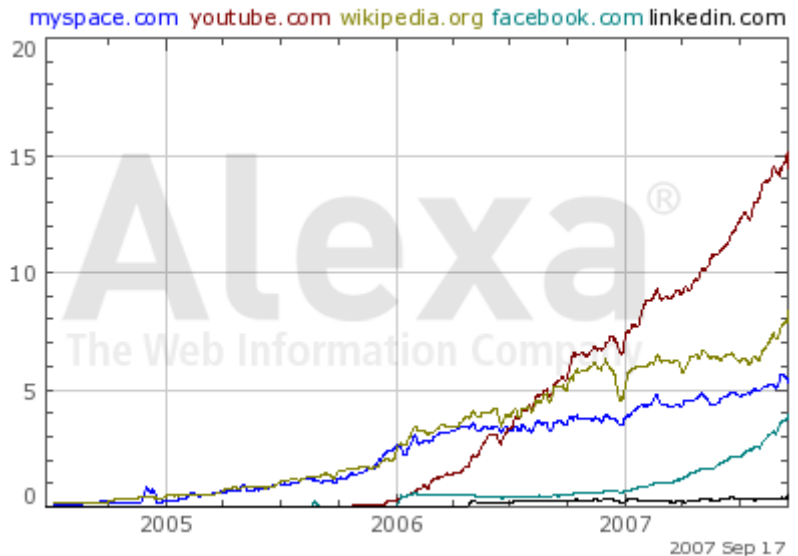


How to get through Disillusionment?
Where is the Enlightenment slope?

Source: Gartner's 2006&2007 Emerging Technologies Hype Cycle Highlights Key Technology Themes

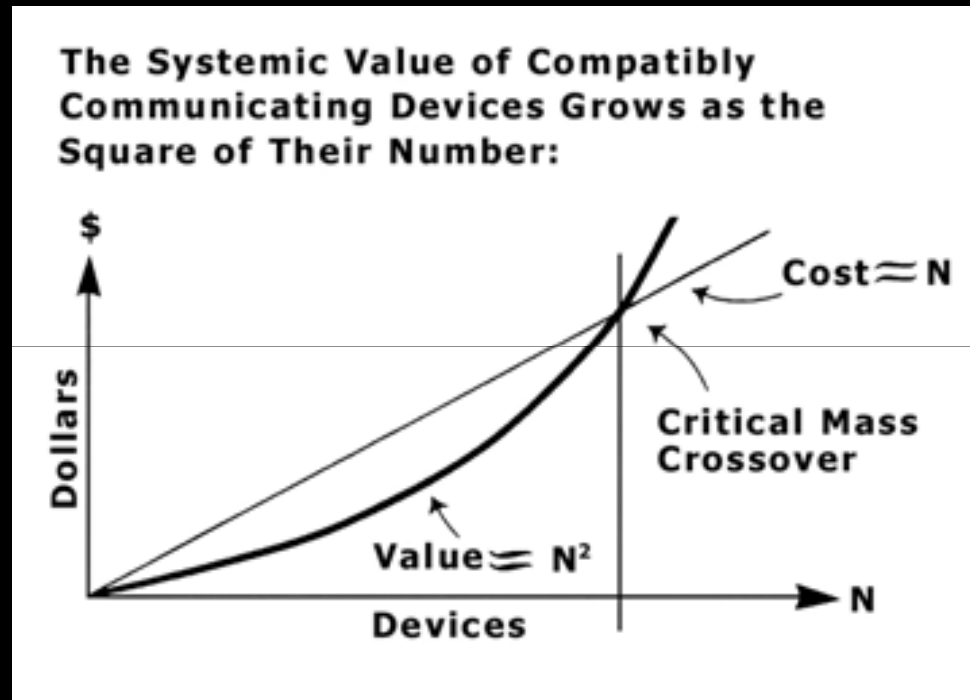
Gartner recently predicted that 80% of active internet users will have “a second life” (though not necessarily in *Second Life*) by 2011

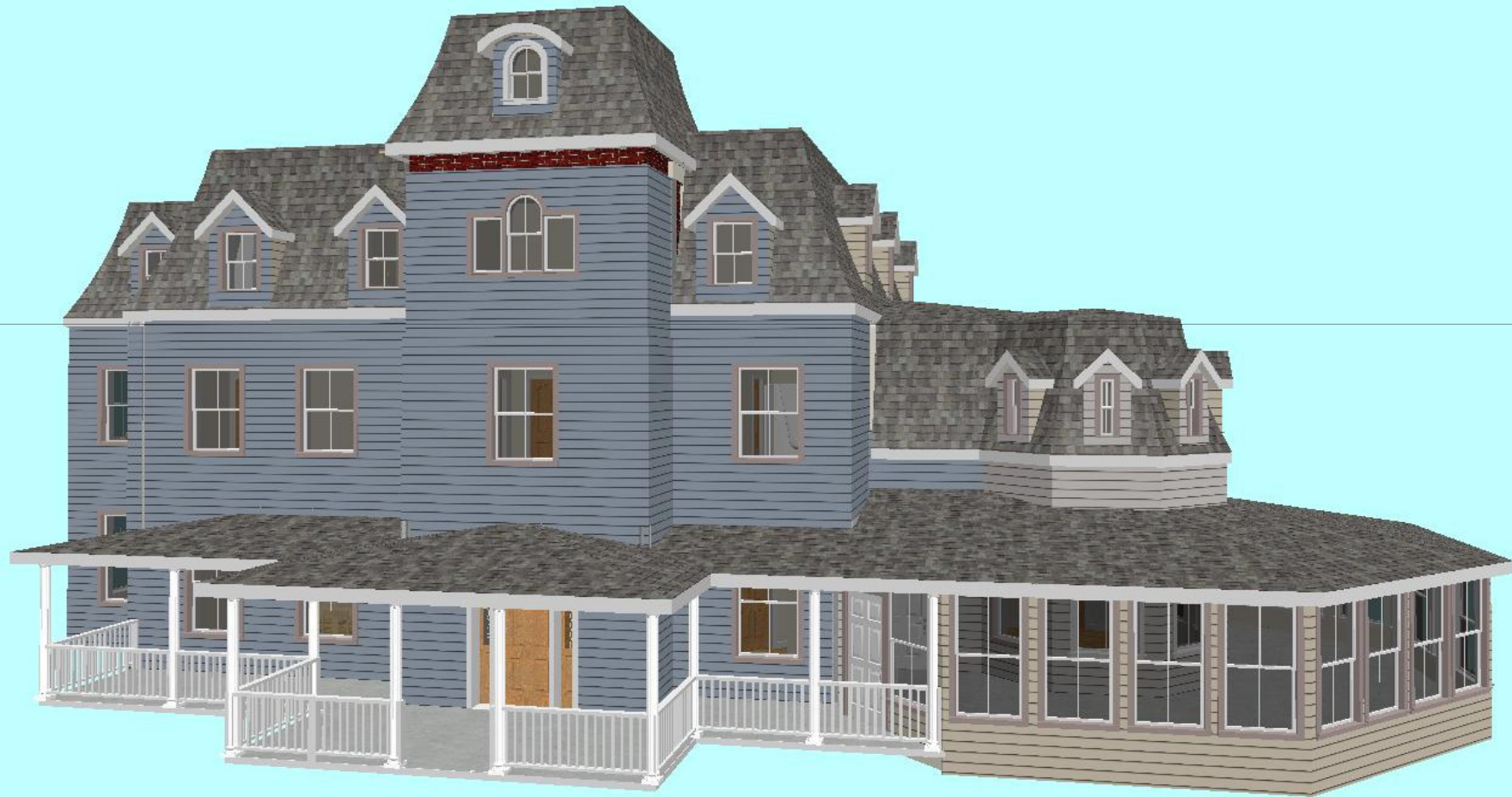
Source: <http://metaversed.com/25-apr-2007/gartner-2011-80-internet-users-will-have-second-life>



Metcalfe's Law

<http://vc mike.wordpress.com/2006/08/18/metcalfe-social-networks/>









kitchen - Google 3D Warehouse Search - Microsoft Internet Explorer

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Google 3D Warehouse

kitchen Search

Search for: Models Collections

3D Warehouse Results Results 1 - 12 of about 2184 for kitchen (0.0 seconds)

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Goooooooooooooogle ▶

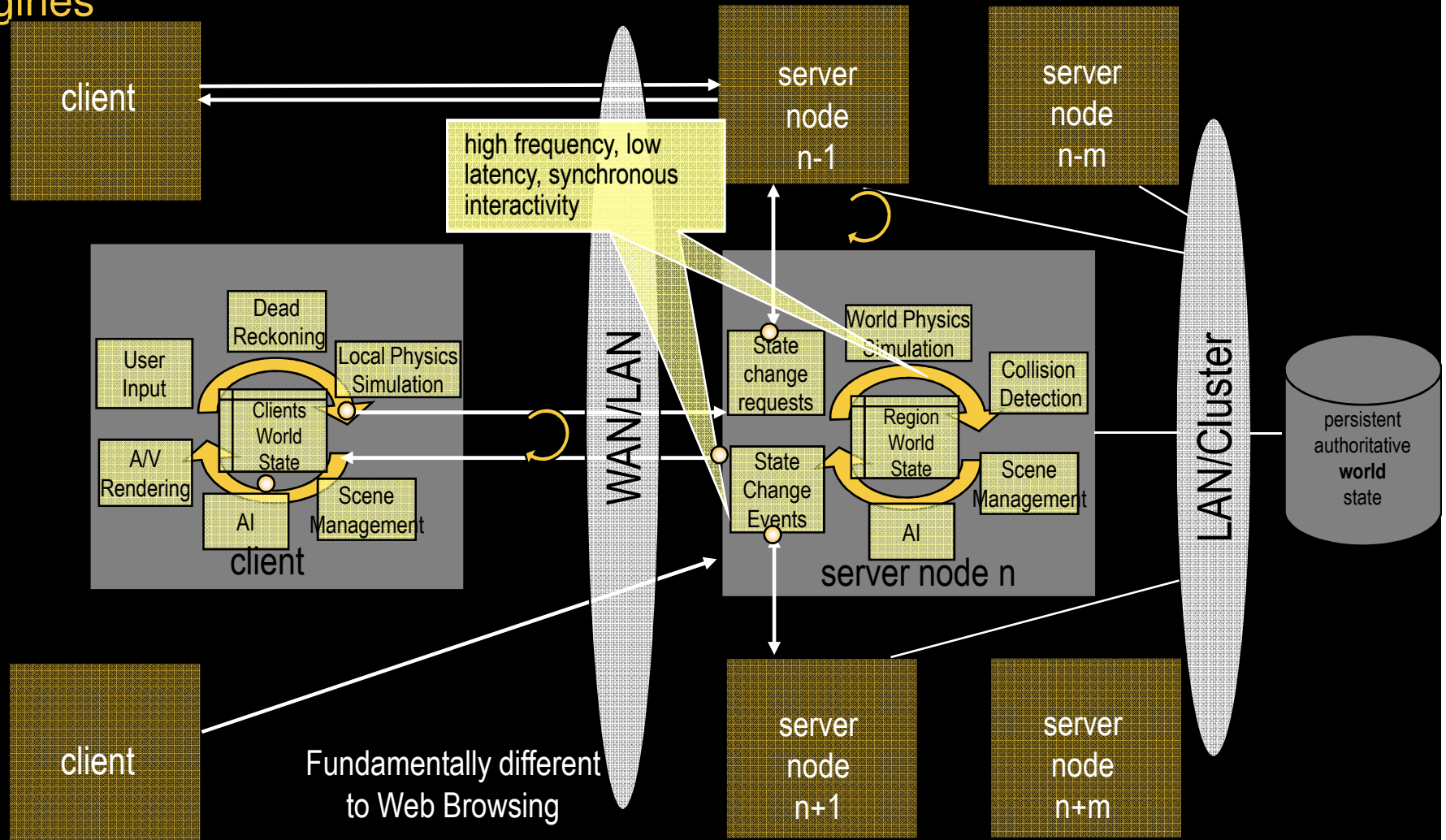
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Build 3D models using [Google SketchUp](#). View 3D models using [Google Earth](#) and the [3D Warehouse Network Link](#).

Internet

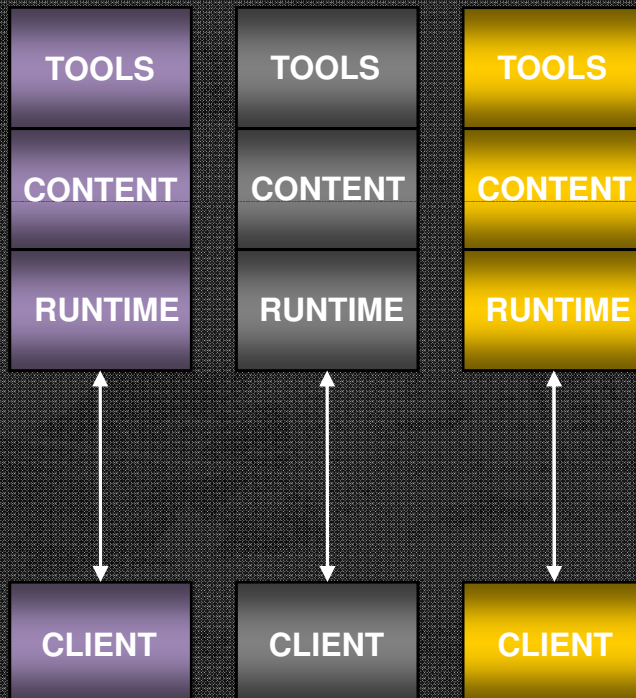


There is a common architectural pattern across all virtual world applications - consisting of real-time event driven, parallel simulation engines

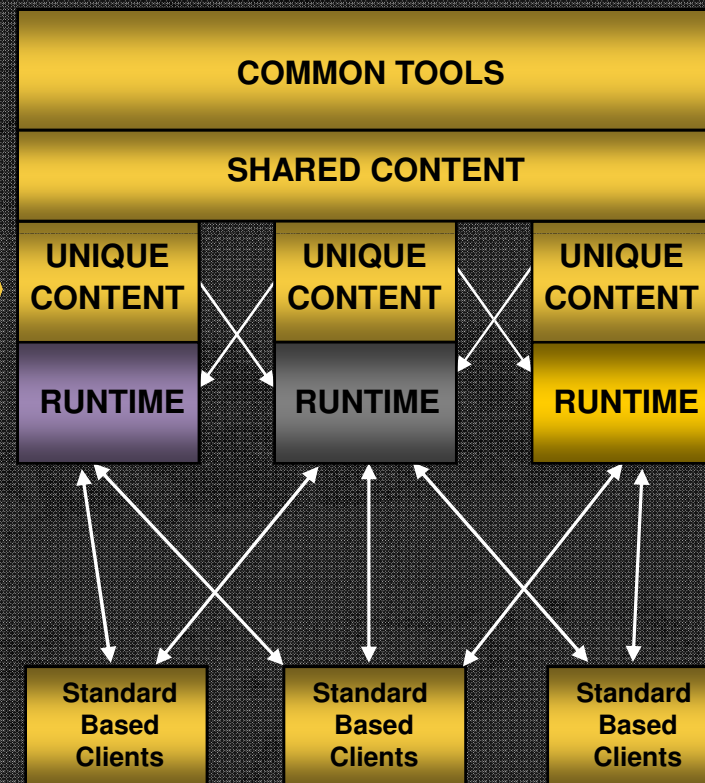




Today's Virtual Worlds



Future Virtual Worlds





Elements of Interoperability

Universal Registered Names, Avatars & Identity Certificates

Protocols and File Formats

Universal Client



Q & A