WHERE DO WE GO FROM HERE?

DECORBER 2, AT THE SAMUEL GOLDWYN THEATER
How Will 3D, Immersive 3D and Virtual Environments Change the Way we Consume Media?

Ed Lantz
Founding Director, IMERSA
President, Vortex Immersion Media, Inc.
Cinema Experiences Will Become More Powerful

- Greater sensory immersion
- Enhanced realism
Consumers Will Increasingly Co-Create Media, Not Just Consume It

• Amplification of personal creative expression

• Customization of experience to personal preferences
Stories Will Increasingly Extend Across Multiple Media Platforms

- From immersive cinemas to home theaters
- From desktops to PDA's
- From interactive games to real-world experiences and attractions
Tools and Technologies
Spectrum of Virtual Reality

[Diagram showing the continuum between real environment and virtual environment, with sections for Augmented Reality (AR), Mixed Reality (MR), and Virtual Reality (VR)].

Virtual Reality

Courtesy NASA

Courtesy VirtuSphere Corp.

Courtesy Immersion Corp.
Augmented (or Mixed) Reality

Third-Person VR Display

“See-Through” Goggles

Mobile Device Overlays

Many Real-World Applications
Spatial Immersive Displays

CAVE

Reality Centers

Fulldome Theaters

Domes

Mega-Walls

Wrap-Around Screens

Personal Small-Scale

Group Large-Scale
Spatial Augmented Reality

Virtual Reflectance

Virtual Illumination

UNC &
Ramesh
Raskar’s
Shader Lamps

Virtual Motion

Virtual Interaction
Gesture Interactive Surfaces
Stereoscopic 3D and Autostereoscopic Displays

3D & Holographic Displays
- No glasses needed
- Touch or gesture interactive
Holographic Displays
Holographic Audio

- IMAX Producers Claim Audio is 60% of the Experience
- Holographic Wavefront Reconstruction
  - Sound sources can be placed anywhere within theater space
  - Virtual plane waves provide identical directionality for all seats
  - Commercial system now available (IOSONO)
Virtual Worlds

- Massively multiplayer online games
- Virtual worlds offer possibilities that the real world cannot
  - Easy access to experiences, people, places, tools, data, simulations
  - Instant gratification, creative expression, wideband communication
- Machinima – Filmmakers in virtual worlds
- Virtual world meets real world…
  - Next big thing…

Many residents of Second Life said that in-world friendships could be more “real” than actual-world friendships, and many found sex online deeply meaningful.

– Tom Boellstorff, Coming of Age in Second Life
Spectrum of Virtual Reality

Mixed Reality (MR)

Real Environment

Augmented Reality (AR)

Augmented Virtuality (AV)

Virtual Environment

The Holodeck

The Matrix
Large-scale, real-time interactive group immersive environments
Digital Dome Growth Markets
700 Digital Domes Worldwide

Themed Entertainment

Events Domes

Digital Planetariums

Giant Screen Digital Cinema
Sampling of Fulldome Theaters

‘Imiloa Astronomy Center
Hilo, Hawai’i
Stereo 3D Dome

Bubble Theater
City of Dreams Caino
Macau, China

Papalote Museo del Niño
Mexico City

Bibliotheca Alexandrina
Alexandria, Egypt

Hayden Planetarium
Rose Center for Earth and Space
American Museum of Natural History
New York, NY
Mobile Dome Venues

Inflatable
(Air-Supported)

Geodesic
(Rigid Structure)
Fulldome Theaters Worldwide

Year Opened vs. Number of Theaters

- LF Film Theaters
- IMAX Theaters
- Digital Domes
Fulldome Programming

- Immersive Cinema
- Digital Planetariums
- Live Art and Music Performances
- Video Game Tournaments
- Special Events
COSMIC DANCE
(Trailer)

Directed by
Harald Singer

Produced by
LivinGlobe
Live Immersive Performances

Bridge Dance League

Bella Gaia
Kenji Williams

Two Voices, One Vision
C3 Vision Lab

David Arkenstone
Beyond the Theater...
Model of Entertainment Experiences

- Creative Self-Expression
- Challenge/Achievement
- Test of Physical or Mental Skill
- Bonding/Sharing
- Social
- Drama/Sensation
- Touch, Sight, Taste, Smell
- Competing
- Imagination/Fantasy

Social Bonding/Sharing Drama/Sensation Challenge/Achievement

Creative Self-Expression

Test of Physical Or Mental Skill

Bonding/Sharing

Social

Competing

Challenge/Achievement

Drama/Sensation

Imagination/Fantasy

Creativity

Creative Self-Expression

Test of Physical Or Mental Skill

Drama/Sensation

Imagination/Fantasy

Touch, Sight

Taste, Smell
ONLINE NETWORKS

Creative Self-Expression

Challenge/Achievement

Test of Physical Or Mental Skill

Touch, Sight Taste, Smell

Imagination/Fantasy

Bonding/Sharing

Social

Competing

Drama/Sensation
NETWORKED VIDEO GAMES

Creative Self-Expression

Challenge/Achievement

Test of Physical Or Mental Skill

Bonding/Sharing

Social

Drama/Sensation

Competing

Imagination/Fantasy

Touch, Sight, Taste, Smell
Storytelling: Cinema

The Story → The World → Exhibitors → Audiences
Storytelling: Interactive Audiences Become Co-Writers

- Story Mediation
- The World
- Retailers
- Audiences
- Multi-User Interaction
- Many Stories!

GAMEPLAY
Unmediated Virtual Worlds
Audiences Become Co-Producers

The World

The Internet

User-Generated Content

Multi-User Interaction

Play

Audiences

Stories

User-Generated Content Modifies Virtual World

CYBERLIVING
Mediated Virtual Worlds
In-World Talent

- Story Mediation
- Live Actors
- The World
- The Internet
- User-Generated Content
- Multi-User Interaction
- Mediated Play
- Audiences
- Stories

CYBERDRAMA
advertising in reverse...
Transformative Potential of Media

The Eyes and Ears as a Wideband Interface to the Brain
In every medium there are artisans, storytellers, and talent who stand out in their ability to inform, uplift, thrill and engage…

Our ability to engage audiences in unique experiences is expanding!