

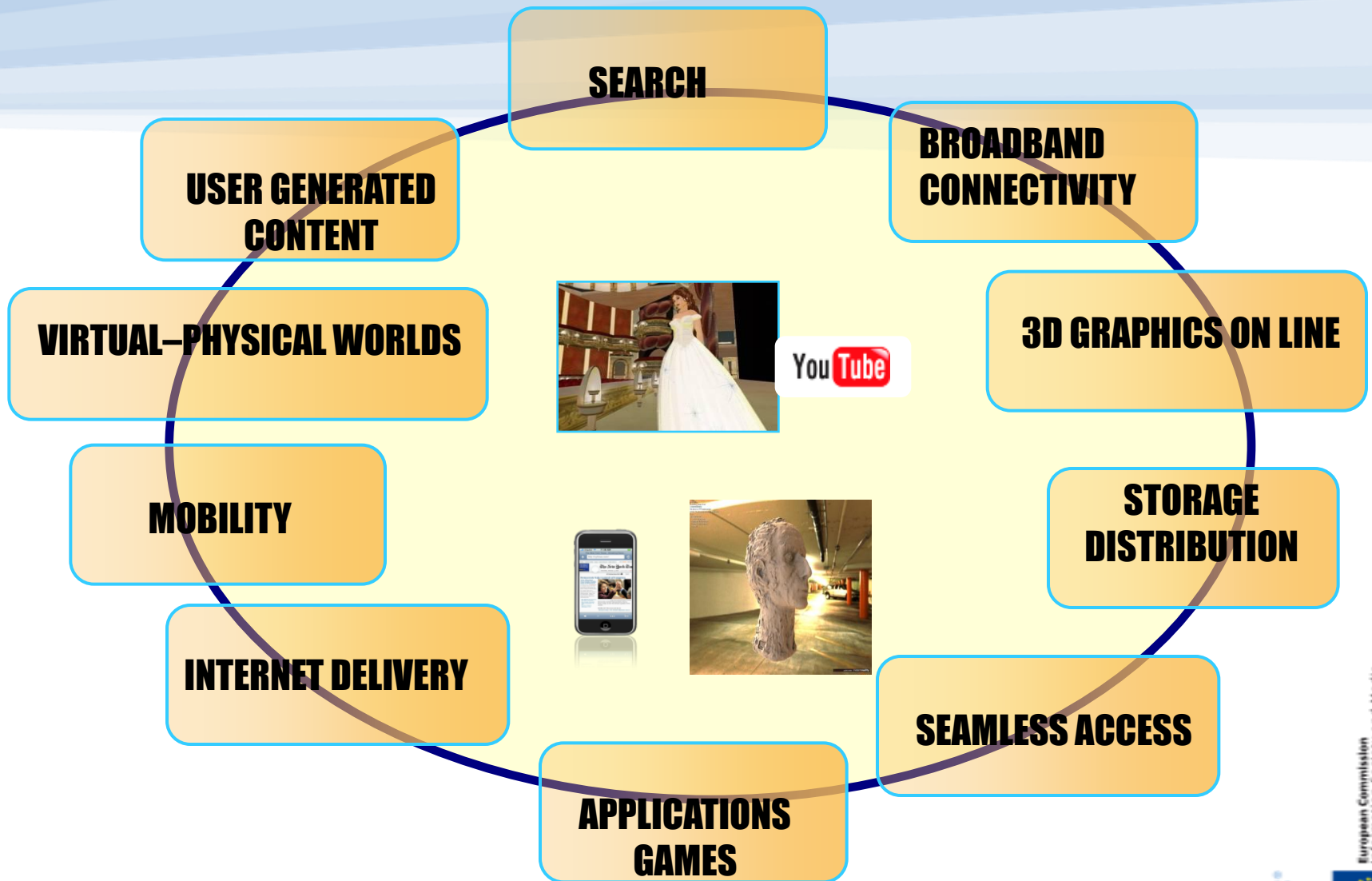
Networks and Media: Trends and Prospects in EU Research

***Luis Rodríguez-Roselló
Head of Unit "Networked Media Systems" DG-INFOS***

***Session on "Media & Content issues in the new
Convergent Environment"
Global Forum
Bucharest, October 2008***



The multiple dimensions of Media



The Networked Media trends (1/3): Massive Collaborative Usage

User generated content fueled by mass collaborative usage, for an ever larger range of applications

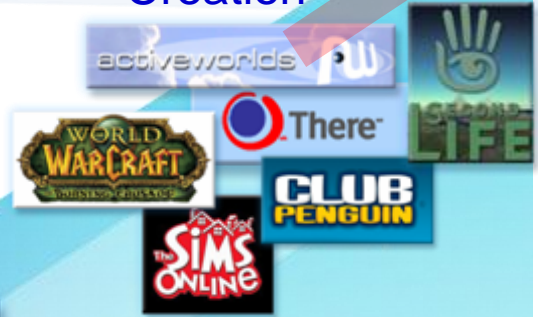
3rd Phase Web
Experience, Participation
Creation

2nd Phase Web
Sharing, Collaboration

?

Early Web
Access and Find

Level of Interaction/immersion



Time



The Networked Media trends (2/3): 3D & Global Media Processing

Education



Augmented Reality



Social Nets.



Real World



WEB 3D

GIS

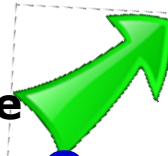
WEB 2.0

Gaming

Mirror World



E-Commerce



➤ An Open 3D Immersive Web is emerging (combining the virtual digital world with the physical world)

➤ Ultra-realistic media

➤ Massively distributed content

➤ Distributed creation and access to applications (also mobile)

Games



Collaboration



gWalk
Developer: Klaus Ien Hagen, Christian Klinger, Marko Madsching, Flare Schoize

Enables tourists to discover a destination individually using context sensitive information

- Create personalized tours
- Combines multimedia presentation of location based content
- Dynamically adapts to spontaneous decisions

Your personal city guide

LifeAware

Developer: Gregory A. Moore, Aaron L. Olson, Javad Akhtar

Social networking service allows individuals to stay in touch and be aware of the locations of friends and family

- Locate your friends or businesses on a map and get directions
- Send your current location to a friend
- Receive notifications when your friends arrive at a location

Where is your life?



The Networked Media trends (3/3): Towards User Generated Content ... and User Generated Services

Present

Limited providers of content/services

Centralized creation

Tied to a network/device/form factors

Separate Media/Services

Not aware of context

One-size-fits-all content aggregation

Authenticated distribution channel

Basic user profile controlled by Provider

Mass Media and Services

Emergent and Future

Users created content/services

Collaborative creation

Follow users on any device/screen

Elusive convergence of media and Services

'Awareness enabled'

Personalized content filters

Authenticated users

Rich user profile controlled by User

Complex, dynamic, volatile, collaborative media and self-Services

“Networked Media & 3D Internet” The Work Programme 2009-10

Context:

- Creation of multimedia content is evolving at a fast pace akin to new ways of media delivery, including **3D Media** and **Ultra HDTV**. Both are relying on the **Internet as a key infrastructure**.
- The Internet has revolutionised access to multimedia content and ever increasing data traffic creates new demands and places constraints to network platforms.
- **Search and retrieval** are essential tools in the new media landscape
- **Dual role of users as producers/consumers** and the **combination of virtual and/or augmented reality** has the potential to generate innovative business models and new economic activities.

R&D focus:

“Networked Media and 3D Internet” as one of the pillars of the Future Internet.

Significant research results are expected in the areas:

- a) **Content-aware Networks and Network-aware Applications**
- b) **3D Media Internet**
- c) **Networked Search and Retrieval**
- d) **Immersive Media Experiences beyond HDTV and Electronic Cinema**



The Work Programme 2009-2010 upcoming R&D

• **Content-aware Networks and Network-aware Applications**

❑ Content-centric network architecture; P2P architecture for User Generated Content/social networks; Adaptive, personalised delivery (content and context-aware); Enhanced QoE for Users as producers, consumers or managers of content.



• **3D Media Internet and Immersive Media Experiences**

❑ Realistic 3D communication, real time delivery and rendering (inc. automatic capture of events in 3D), augmented worlds, immersive TV, multi-view.



• **Multimedia Search and Retrieval**

❑ Large scale distributed MM content, interaction, dynamic adaptation to context and application, personalised search (inc. social networks), automatic annotation and indexing



- ❑ **Networked Media is at the core of key business sectors for Europe (Mobile technologies and applications, Broadcasting, Content, Entertainment -Cinema, Games-...) which are also crucial for universal access to information and knowledge and for our future culture.**
- ❑ **Leveraging the Future Internet with a much higher number of compelling content and services and create wider market opportunities (including for content-related SMEs) from innovative business and societal applications.**

We need to build up a partnership among the excellent EU industry (Content, Broadcasting, ICT and CE) and aggregate research capabilities in order to meet the new global demand for personalised content and services