# *The Metaverse: Towards a 3D Web and the integration of the digital world in our reality*

**August 2007**

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# Towards the metaverse

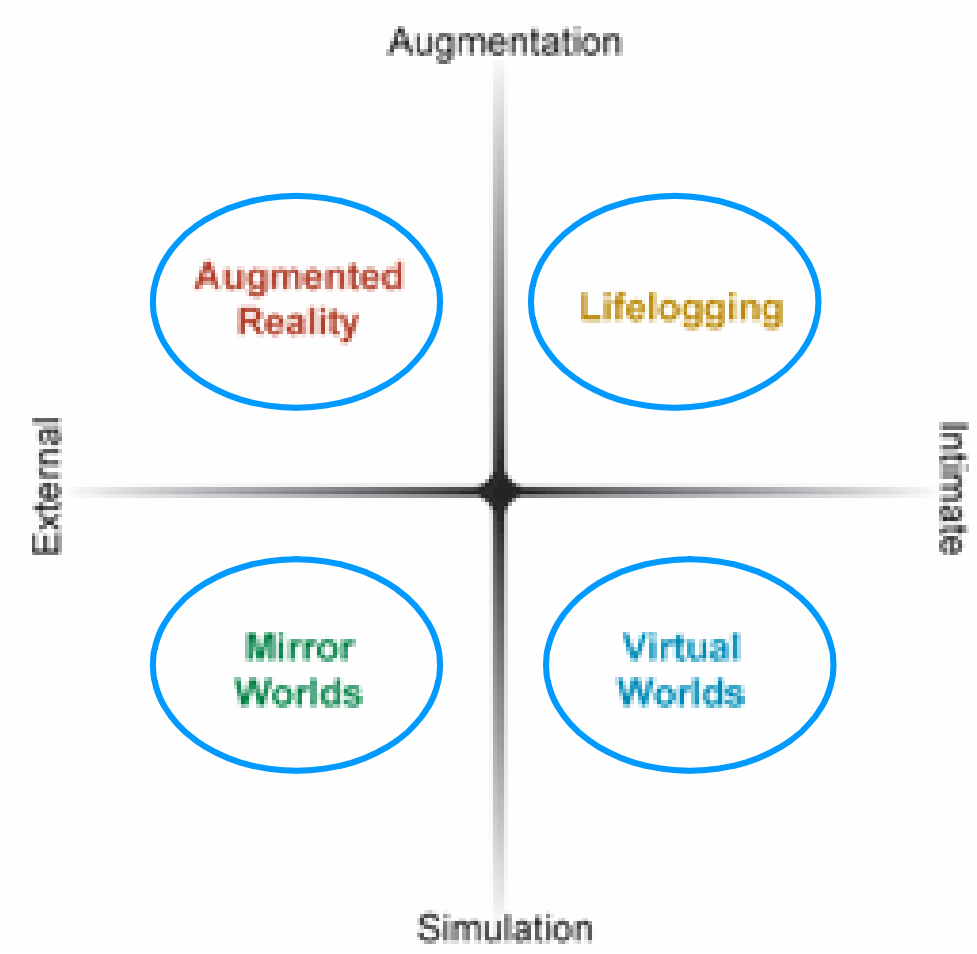
***Metaverse:***
***The convergence of:***
- ***virtually enhanced reality***
- ***persistent virtual spaces***

***=> Towards a mix of the real and the virtual***

METAVERSE ROADMAP
Pathways to the 3D Web

http://metaverseroadmap.org/

# 4 leading trends



# Towards the metaverse

1. **Virtual Worlds**

2. Mirror Worlds

3. Enhanced Reality

4. Lifelogging

## Beyond the Metaverse…

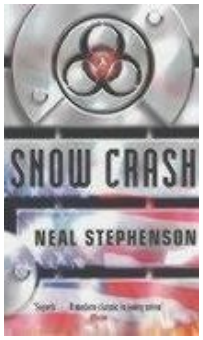
# From simple online games (the MMORPG)

## … to virtual worlds:

- *social ties*
- *UGC*
- *Relations with real life*
- *Economy*
- *……*

# Virtual Reality

**From the dreams of science fiction writers…**




**… to one of the fastest growing markets today**

SECOND LIFE

There

ENTROPIA UNIVERSE

HIPIHI™
www.hipihi.com

Whyville.net

HABBO

neopets

# An explosion of virtual worlds

Univers virtuels génériques

Outback

Environnements 3D

Sexe et jeux d'argent

Environnements liés au jeu

Générateurs d'univers

Place de marché

Environnements liés à a musique

MMORPG

Environnements en 3D isométrique

Jeux de rôle

Tamagoshi-like

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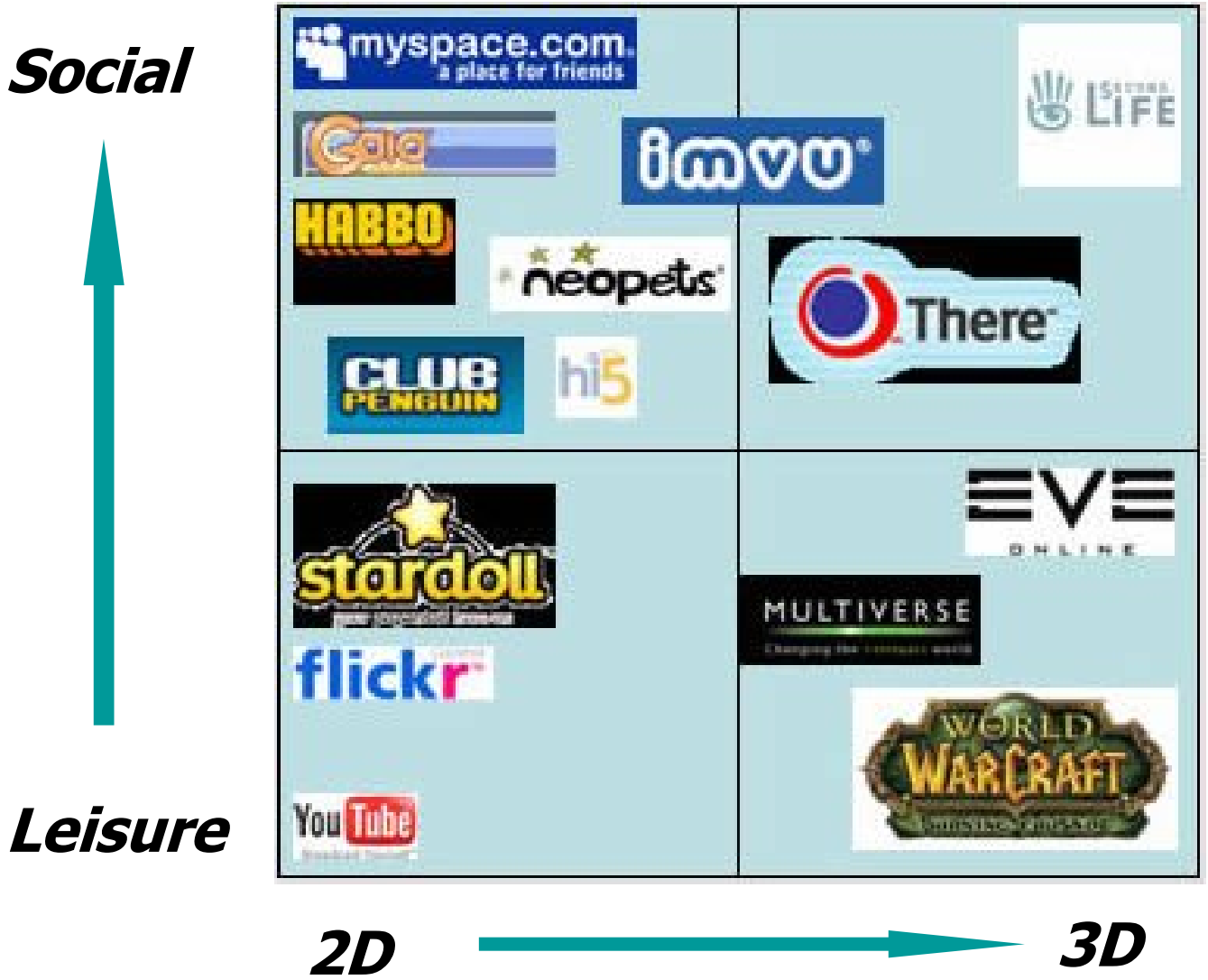
# Virtual Worlds on the Web 2.0

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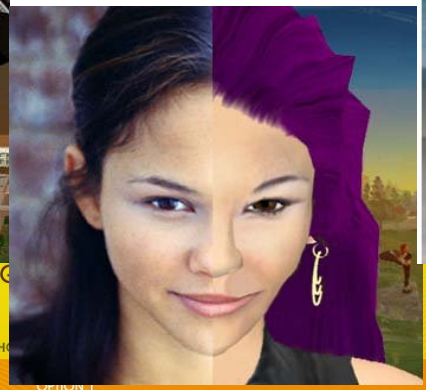
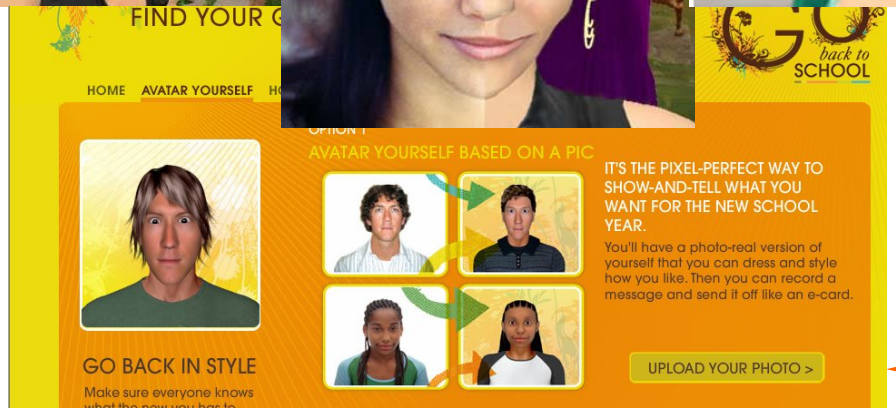
# The Avatar, a Vehicle in Virtual Worlds

↑ Second life



Perfect World ↑




***Oddcast's Photo-to-Avatar Technology***

**According to Metaverse Roadmap experts : 50% of users in 2016 will use an interactive 3D avatar at least once a week for any purpose other than games and entertainment, including socializing, communication, creativity, education, barter, commerce, exercise**

**According to Gartner Group : 80% of active internet users will have an avatar in a virtual environment as Second Life by 2011**

# Second Life, today the most highly developed WV

**Contents generated by user**

**Design**

**Economics *via L$***

# Prospects for links between WV

## Emergence of inter-économics:

**Anshe Chung Studio opened a real virtual bank in June between Second Life and Entropia which will enable monetary exchange between these two economies**

## Interoperability of the avatars?

***IBM: Is looking for the standards of the virtual world***

***Hipihi Stratégie Globale: to collaborate with Internet leaders and principal 3D virtual worlds to establish standards***

# Future prospects (continued)

## Development of MV in open source (or release of the Second Life code…)

*=> For a massive distribution of VWs*

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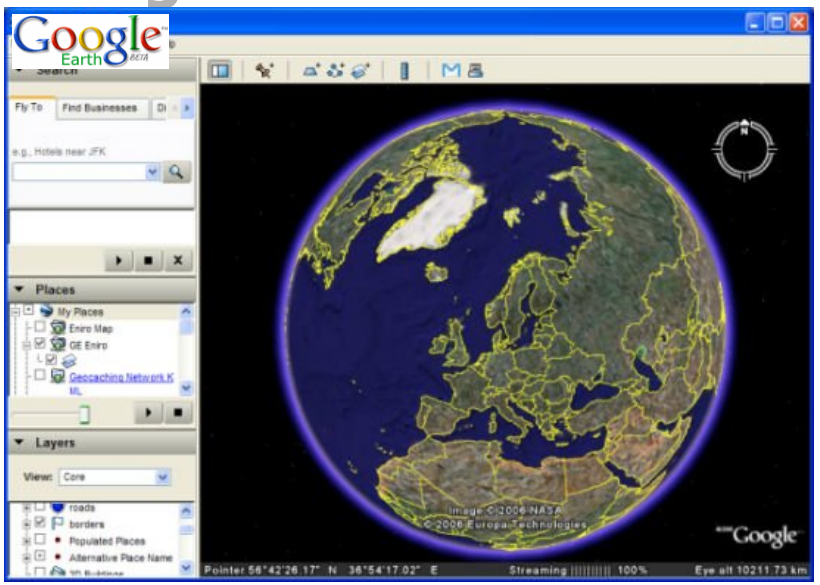
# Beyond the Metaverse…

# Mirror Worlds: A digital reproduction of our reality

## From the simple map

## Enhanced with satellite images



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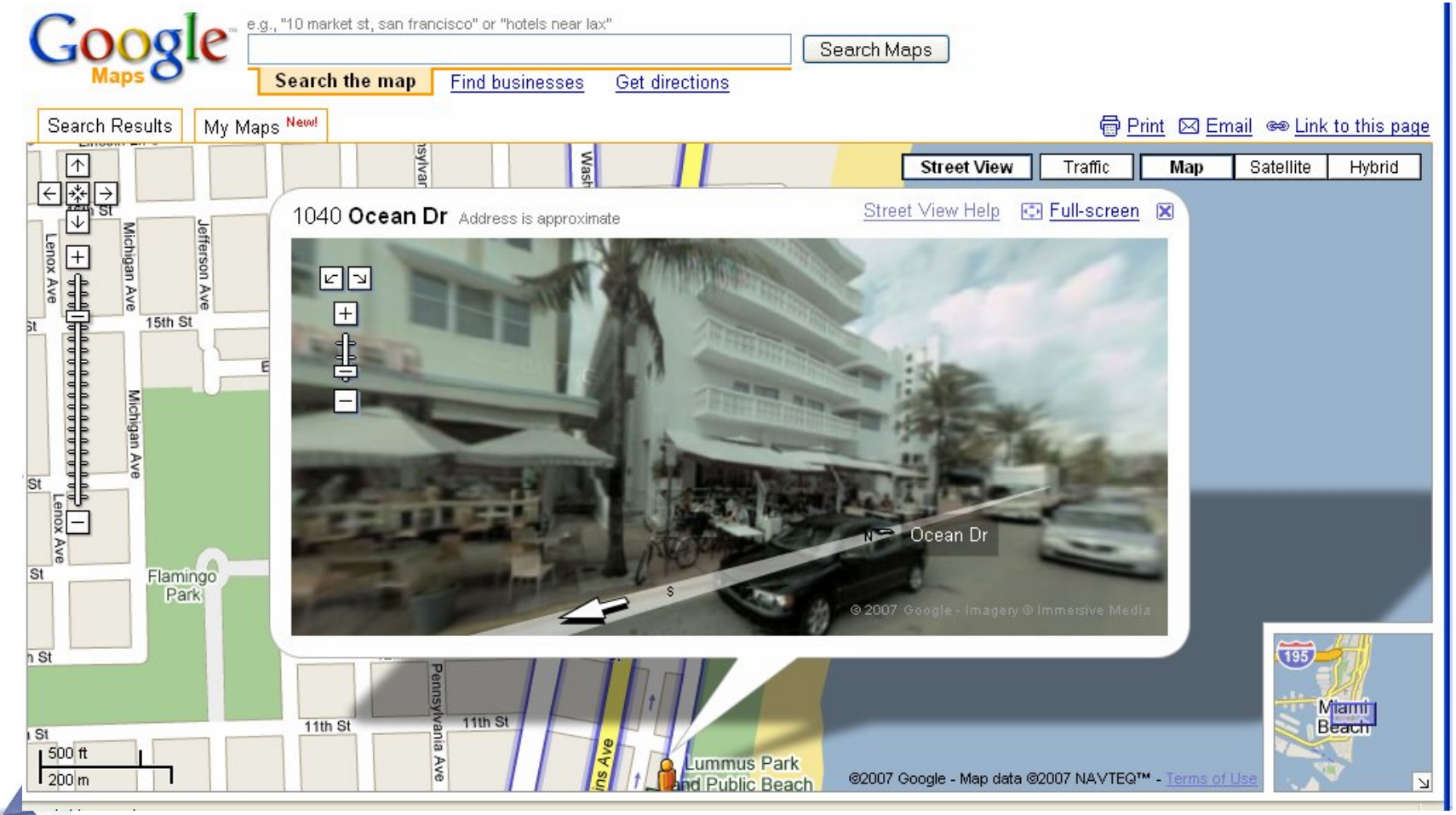
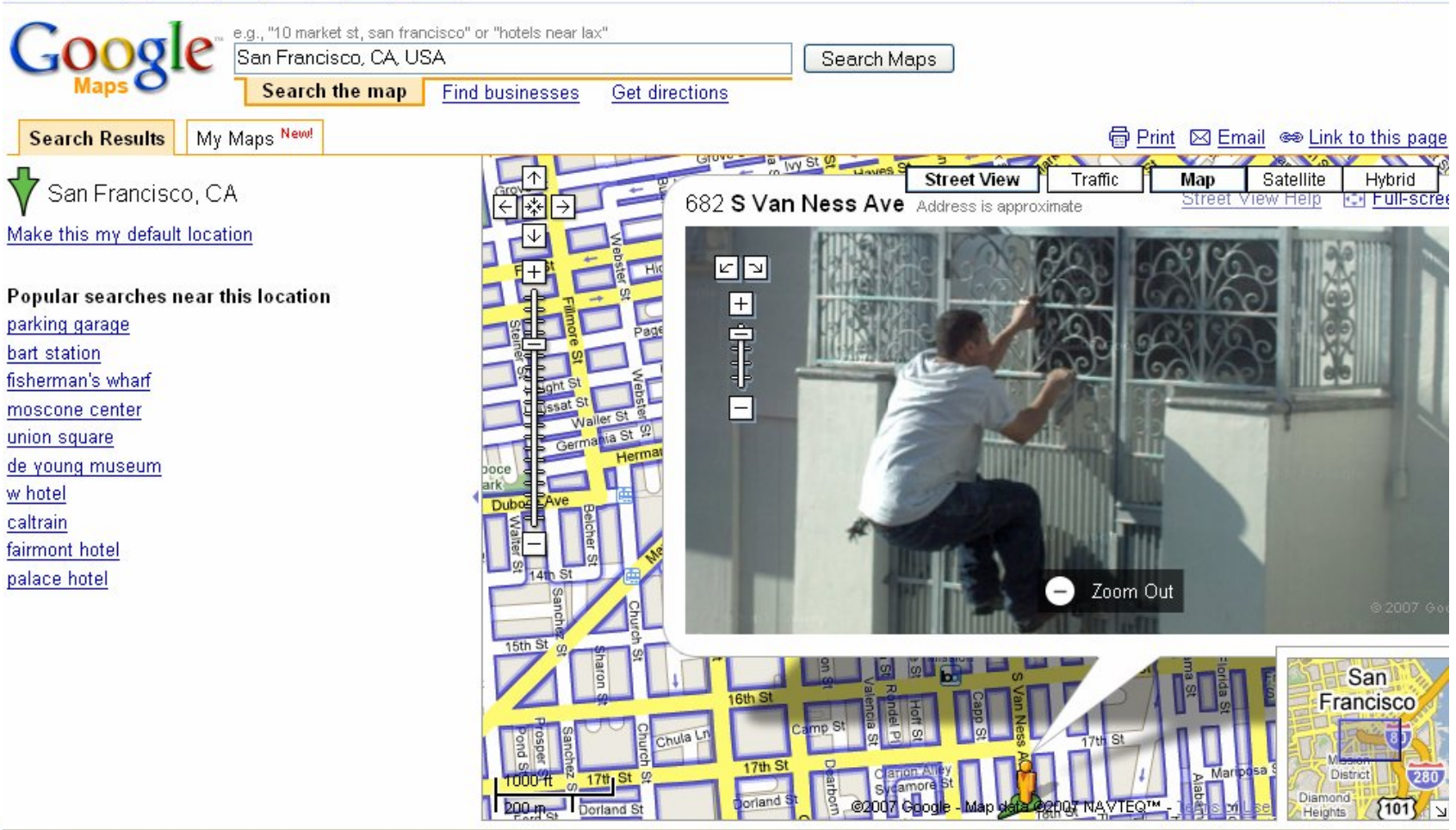
# A digital reproduction of our reality…

## Completed with images taken on the ground with 3D navigation…



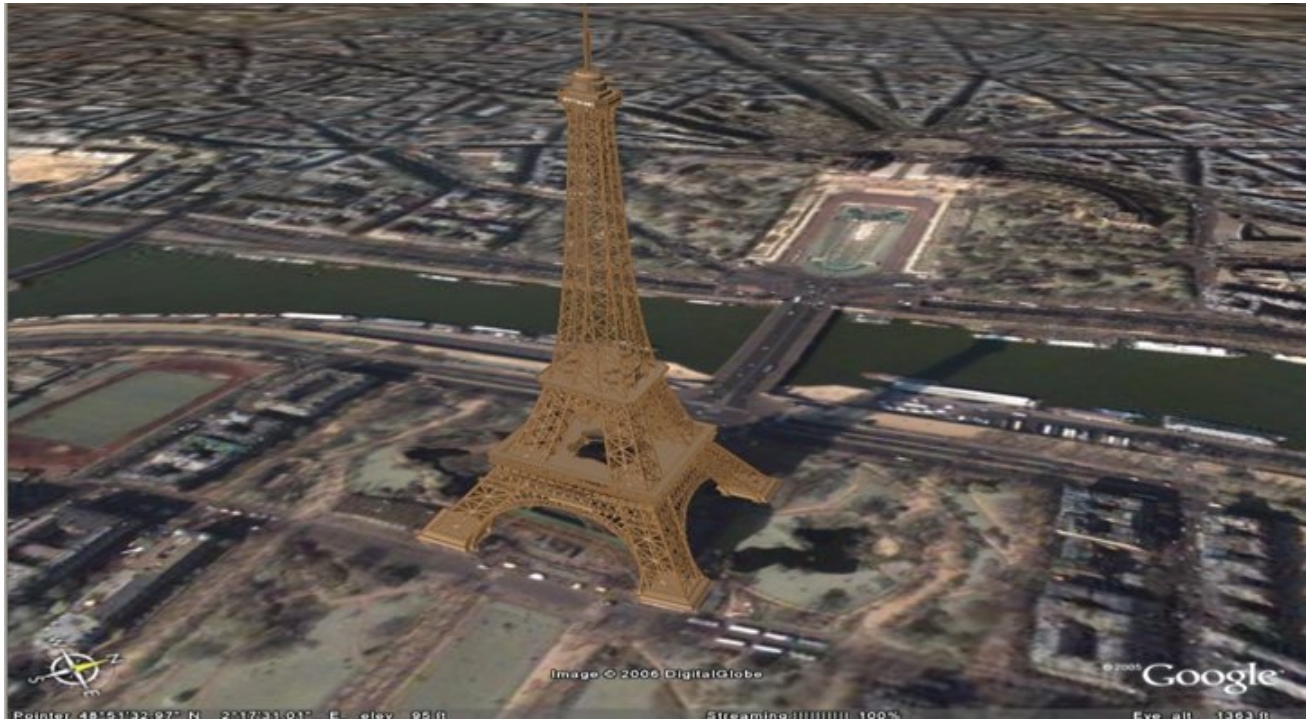
# With at times instructive close-ups…

***Source wired.com, compilation of the best photos from googlemap***



# A digital reproduction of our reality…

## Completed with 3D modelling tools…




## and links to other sources of data (climate, subsoil, population…)

# Development of professional uses of Mirror Worlds

Google Earth — Une interface 3D de la Terre

Accueil Google Earth
Téléchargements
Produits
Présentation du produit
Aide

Autres secteurs d'activité

- Immobilier commercial
- Immobilier résidentiel
- Architecture/Ingénierie
- Assurances
- Médias
- Administrations/ONG
- Administrations régionales et locales
- Autres

## Secteurs d'activité utilisant Google Earth : Immobilier commercial

Avec Google Earth, les informations essentielles pour préparer vos projets immobiliers sont à portée de main. Survolez simplement une région et effectuez un zoom avant pour l'explorer plus en détail. Combien y a-t-il de concurrents dans un rayon de 5 kilomètres ? Existe-t-il une casse automobile à proximité ? Vous connaîtrez la réponse, sans même avoir à vous déplacer.

Agrandir l'image

Agrandir l'image

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# Towards a social dimension in Mirror Worlds?

## Social network + Mirror World + Virtual World

# Towards the metaverse

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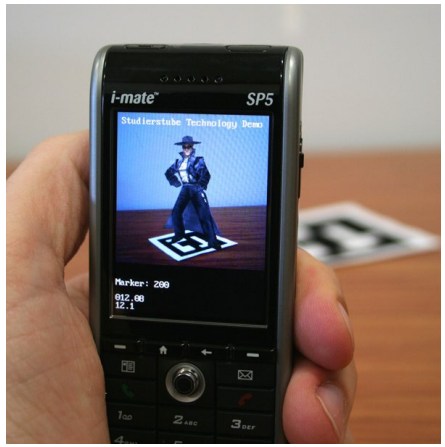
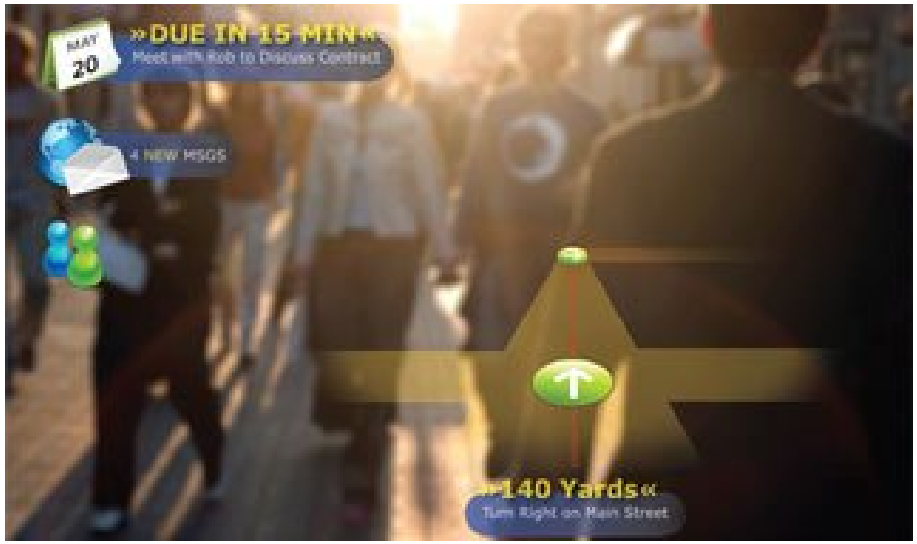
4. Lifelogging

## Beyond the Metaverse…

# Enhanced Reality

## An enhancement of our perception of the outside world through intelligent objects.





***"In a longer-term future, different people may have very different experiences of the same physical location."***

**Metaverse Roadmap**

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# Towards the metaverse

1. Virtual Worlds
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4. **Lifelogging**

## Beyond the Metaverse…

# Lifelogging

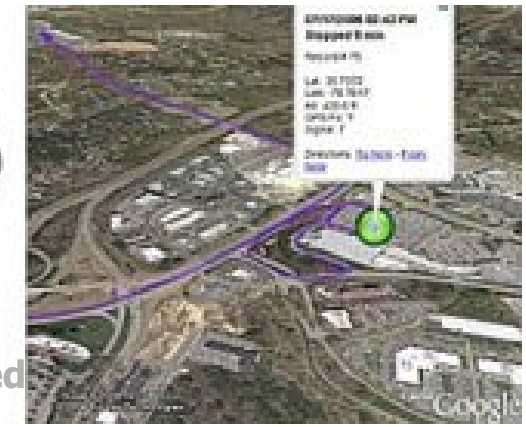
**Recording, storing and restitution of all the personal states and all the experiences:**
**. of an object ("Object Lifeblogs")**
**. or of a human being ("life catching", "documented lives"…)**

**The cost of a gigabyte of computer memory, over time.**
**1956 | $10 million**
**1980 | $233,000**
**1990 | $7,700**
**2000 | $13.30**
**2006 | $1**
**Sources: ALTS LLC and *PC World. Figures not adjusted for inflation.***

# Object Lifelogging

## A backup of all the states of an object => geo-localisation / security / ...

A GPS Lifelog connected to Google Earth



Networked localised weapons : a future lifelog development ?

**Source : Metaverse Roadmap**

# Users Lifelogging

## Towards a digital memory of one's existence

***For the past seven years, Gordon Bell has been conducting an audacious experiment in "lifelogging"--creating a near-total digital record of his experience. ... The last time he counted, MyLifeBits had more than 101,000 emails, almost 15,000 Word and PDF documents, 99,000 Web pages, and 44,000 pictures.***
***Fast Compagny – november 2006***

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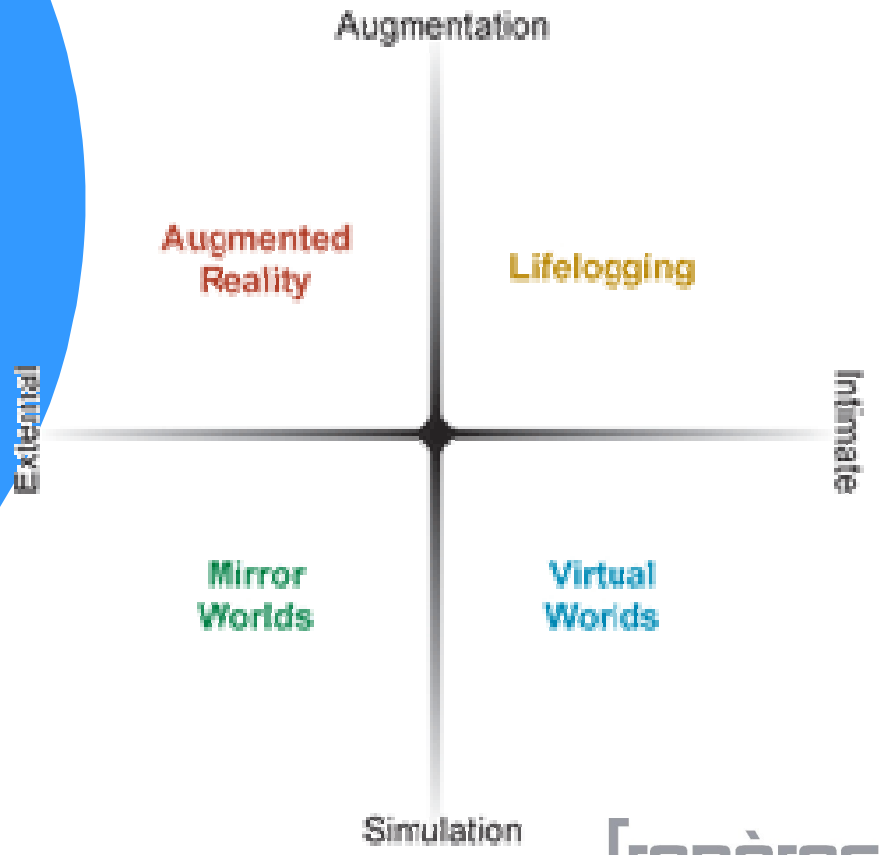
# Users Lifelogging : Towards a sharing of experiences

# Users Lifelogging: Many questions

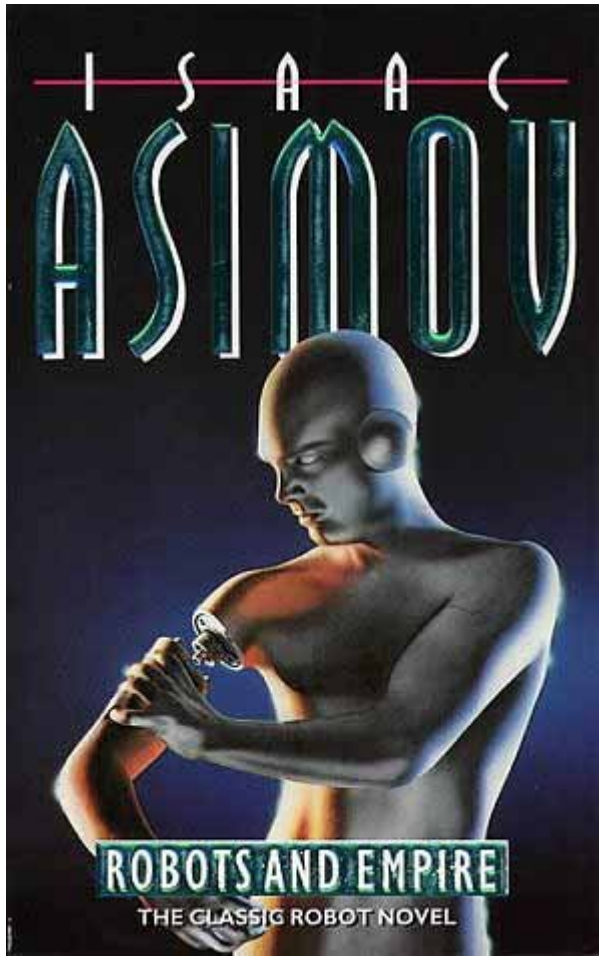
- No more forgetting?
- total transparency?
- a reality show at a global level?

# *Towards the metaverse: An extension of reality*



# *Beyond the Metaverse… towards the enhanced body*

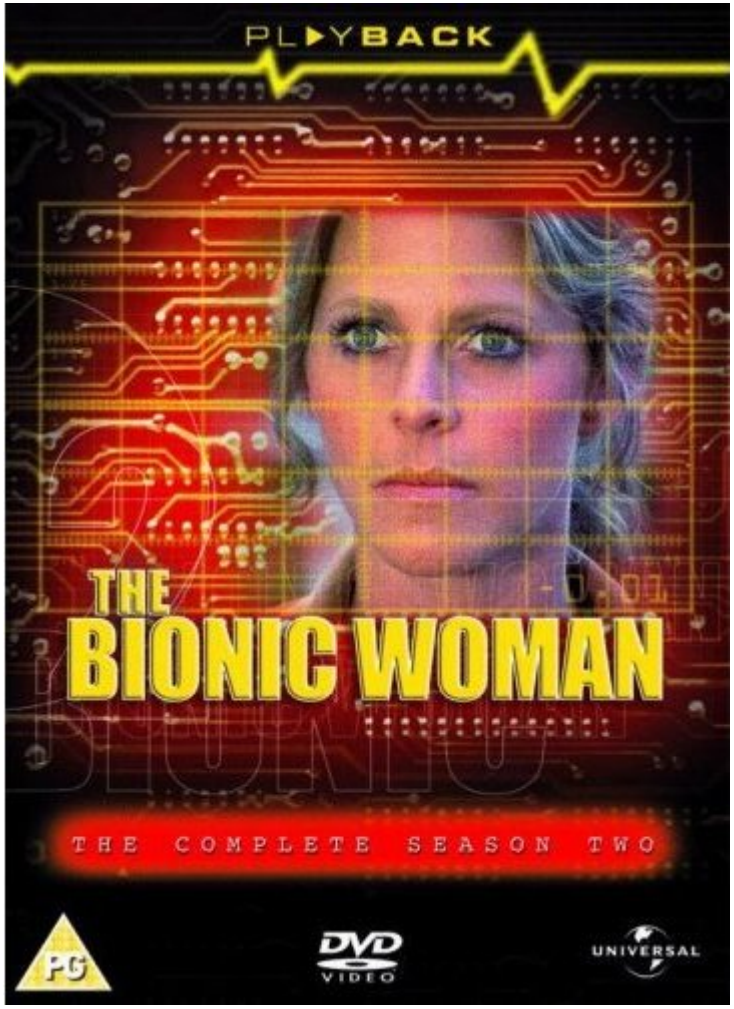
# Robots


ISAAC
ASIMOV
ROBOTS AND EMPIRE
THE CLASSIC ROBOT NOVEL

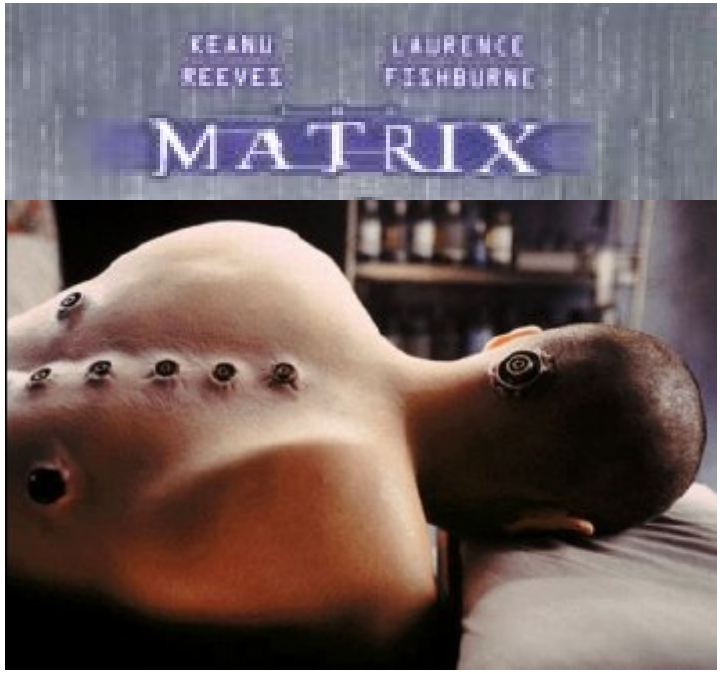
ASIMO
HONDA

# Exoskeletons

# Cyborgs


PLAYBACK
THE
BIONIC WOMAN
THE COMPLETE SEASON TWO
PG
DVD
VIDEO
UNIVERSAL

# Direct body-computer connection



# Artificial intelligence ?

Automates Intelligents

## Simulation d'un cortex de souris sur un super-calculateur ?

De nombreux articles en ont parlé : James Frye, Rajagopal Ananthanarayanan, et Dharmendra S. Modha, chercheurs chez IBM (Almaden Research Lab) et de l'University du Nevada, ont implémenté une simulation massivement parallèle d'un modèle de cortex de souris sur un super-calculateur 4096 Blue Gene L !

8 mai 2007
par Christophe Jacquemin et Jean-Paul Baquiast

## Emergence d'une nouvelle culture au Royaume-Uni ? : soixante robots vont interagir au sein de "villages" robotiques

Une équipe pluridisciplinaire provenant de 6 institutions*(1)* mène au Royaume-Uni un programme de 4 ans visant à étudier la création et l'évolution de liens sociaux entre 60 robots appelés à cohabiter dans une société globale. Le financement d apporté par l'Engineering and Physical Sciences Resea

*To conclude:*
*A tribute to our writers and visionaries*

# *Contacts*

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