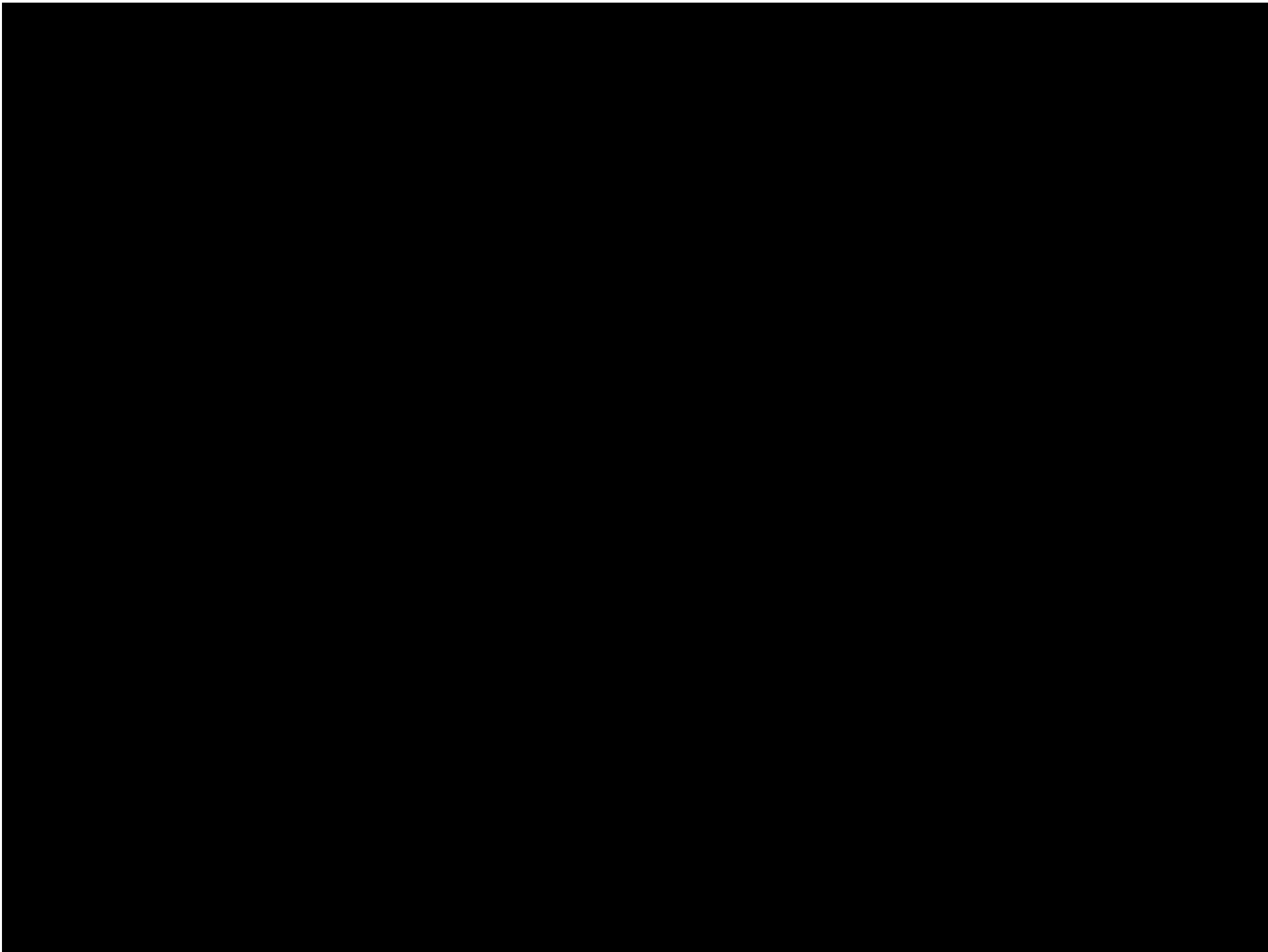






Ordine
&
Extra-Vagante

4 e 5 Marzo 2010, Milano, Università IULM

Prof. Cesare Massarenti

Università di Milano-Bicocca - Politecnico di Torino
Stanford University

5 March 2010



Prof. Cesare Massarenti

**Università di Milano-Bicocca - Politecnico di Torino
Stanford University**

5 March 2010



René Magritte, *La trahison des images*, 1928-29.

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Most often things are not what they seem to be.

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A WORLD IN TRANSITION

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FILM VIDEO PRINT
COMPUTER
SIGNAGE MOBILE DEVICES

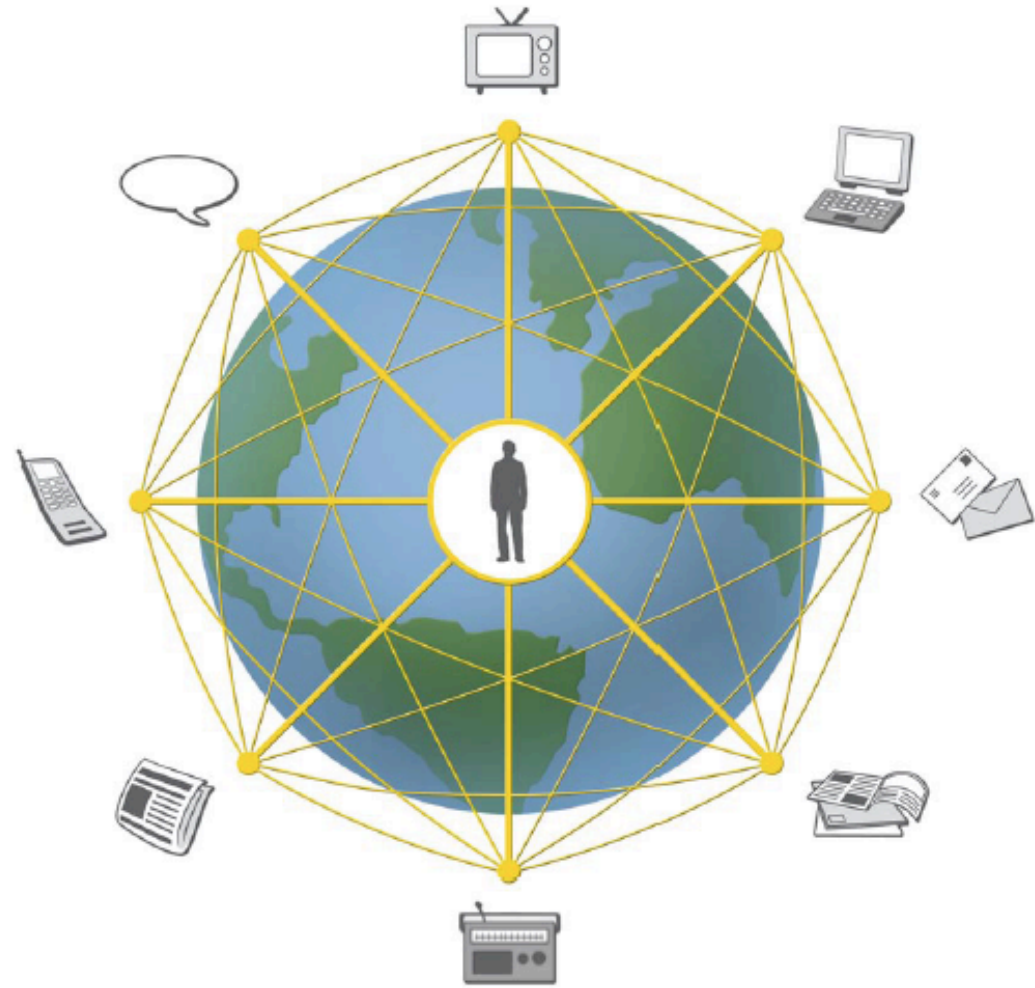
ONE WORLD ?

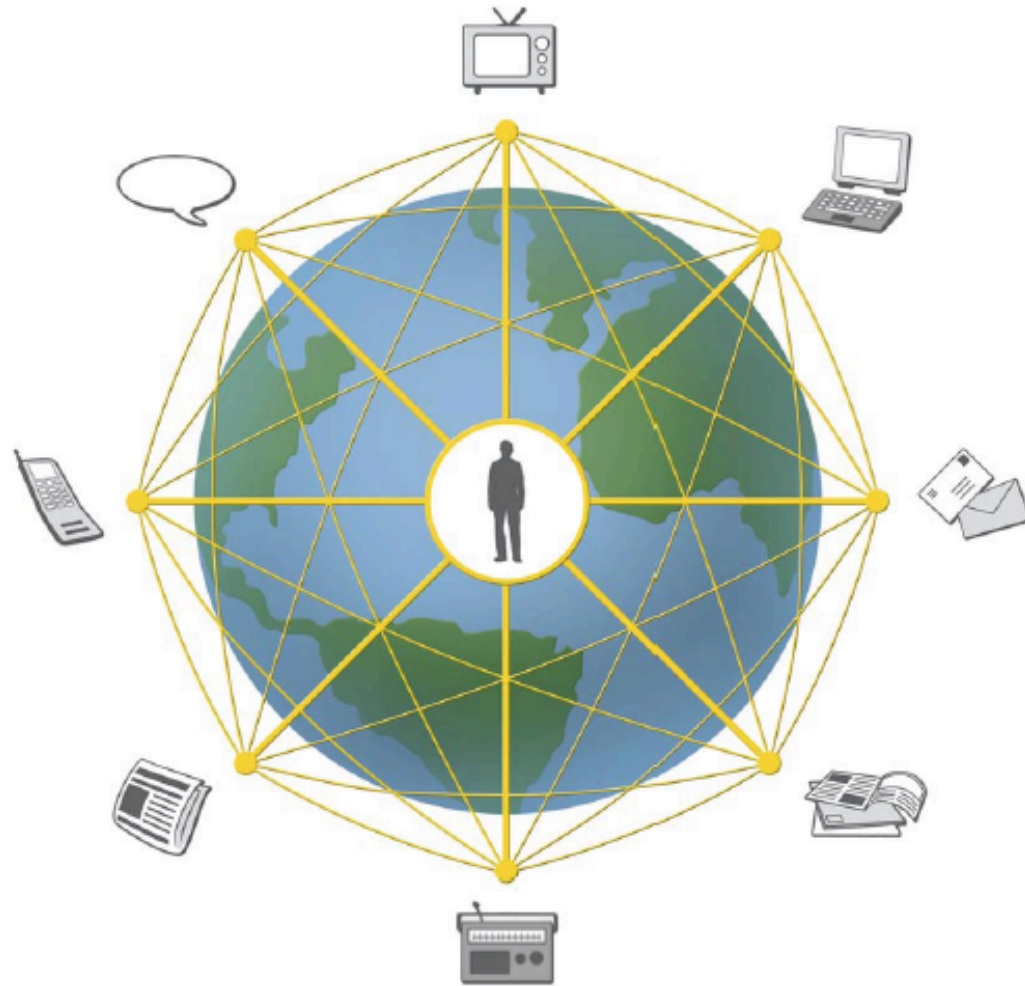
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From Monologue

To Dialogue

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From **Industry**
centered

To **User**
centered

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industry generated content

passive user

involved user

active user

user driven content

user generated content

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COMPETITION FOR THE AUDIENCE USER EXPERIENCE

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A MULTIMEDIA WORLD

DIGITAL VIDEO TECHNOLOGIES

MULTIMEDIA
MESSAGE
SERVICE

DIGITAL
TELEVISION

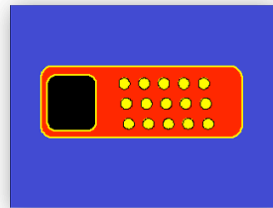
HDTV

DIGITAL
CINEMA

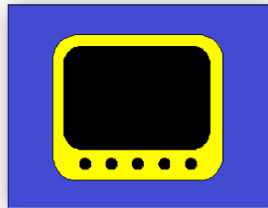
HOME
CINEMA

MOBILE
TV

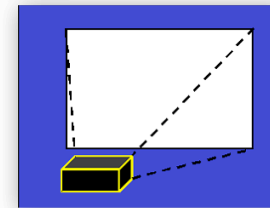
INTERNET
TV



very small screen



small screen



large screen

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TOWARD MOBILE DEVICES

easy access - ubiquity

Mobile Phone

PDA

iPod

Game Console

Multi-Function Devices

Future Mobile Devices

■ fidelity

■ wide band

■ high speed

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TOWARD MOBILE DEVICES

easy access - ubiquity

Smartphones

Videogame consoles

Car navigators

Multi-Function Devices

Netbooks

Tablet computers

E-books

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TOWARD MOBILE DEVICES

easy access - ubiquity

Smartphones

Videogame consoles

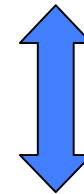
Car navigators

Netbooks

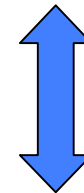
Tablet computers

E-books

Digital Signage



Multi-Function Devices



Digital Signage

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Internet
Mobile Devices
Digital Signage

Just-in-time Communication

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ACCESS and DISPLAYS

**Access devices
are specialized and complementary
at the same time.**

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ACCESS and DISPLAYS

**With multiple types of access devices
it is necessary to revise
the entire chain of content production
from creation to distribution.**

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ACCESS and DISPLAYS

**Deployment of advanced interactive systems
and the development of Social Networking
are radically changing content
origination, processing, and distribution.**

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Complexity in Communication is increasing

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INCREASING COMPLEXITY - 1

Single Communication Channels

Multichannel Content Delivery

Time - Location - Personalization - Interactivity

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INCREASING COMPLEXITY - 2

Multimedia
Interactive Systems
Cross-Media

Time - Location - Personalization - Interactivity

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INCREASING COMPLEXITY - 3

Multiple Access Modes

Passive - Active

Indoors and Outdoors

Time - Location - Personalization - Interactivity

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INCREASING COMPLEXITY - 4

Specialized Visualization of Content

Adaptation to Context

Time - Location - Personalization - Interactivity

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Increase in Noise - 1

- In times of great and deep **change**, the number of people who have **difficulties** understanding what is happening **increases**.

Increase in Noise - 2

- Noise increases more rapidly and widely than information - **outer noise**.
- People are now doing several things at the same time - **inner noise**.

Increase in Noise - 3

- Variable Formats and Dimensions of Displays.
- Alternative and complementary Viewing Experiences.

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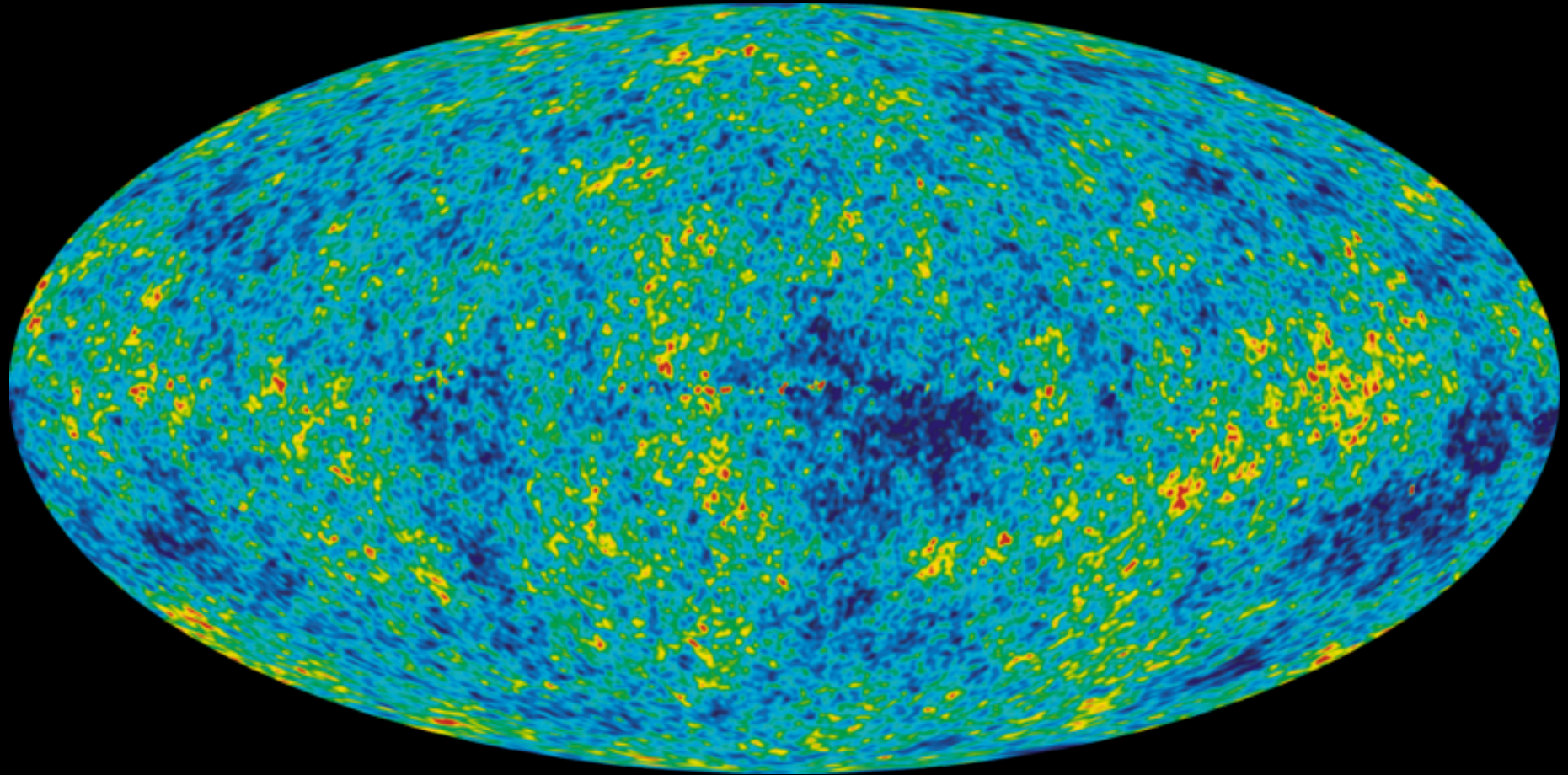
Increase in Noise - 4

Environmental Noise

Media Noise - Across Media Noise

Channel Noise

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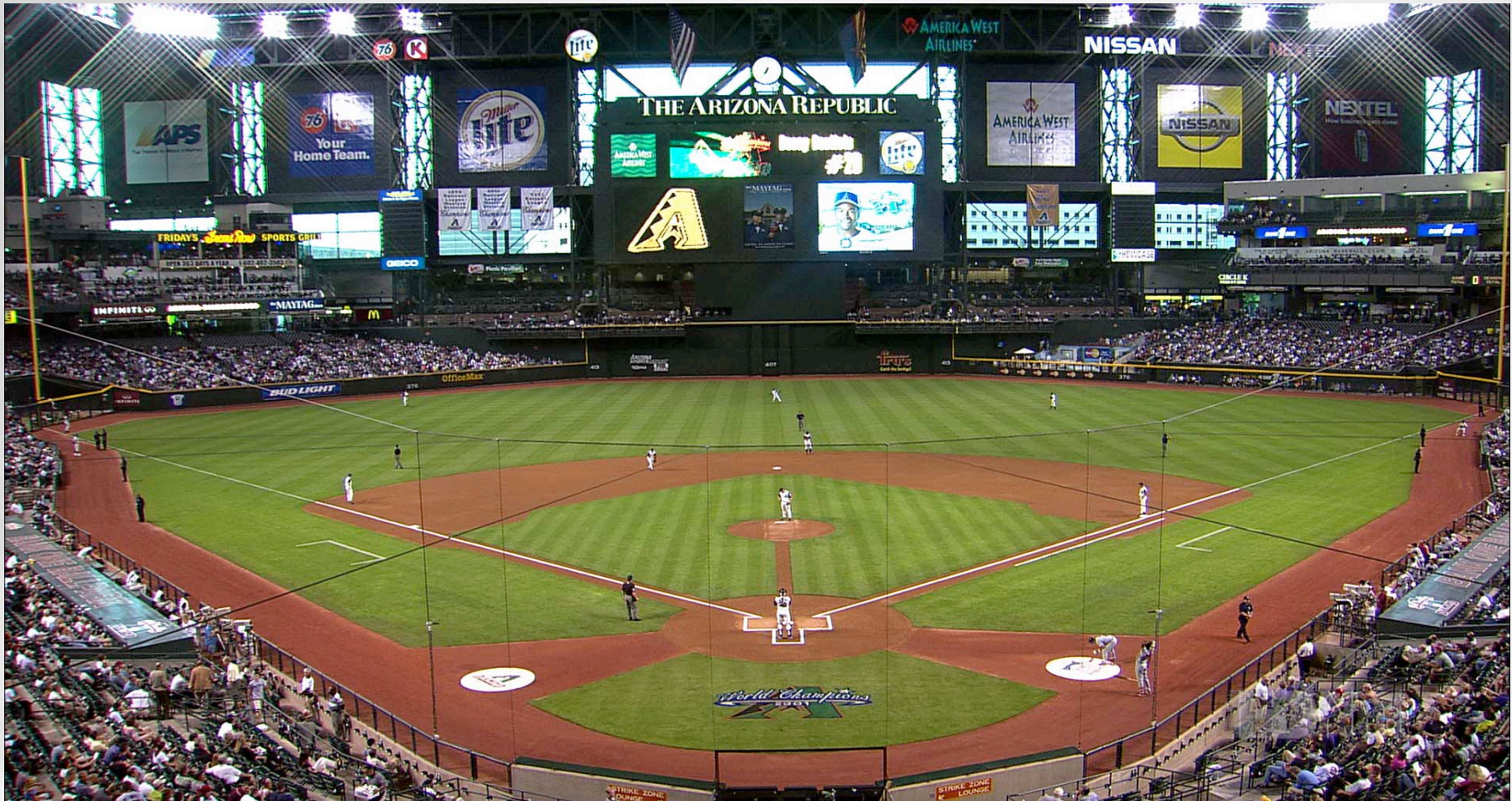
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Increase in Noise - 5

Attention **gathering** becomes more difficult.

Attention **span** decreases.



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Eye Fixation

searchitem 1	20 mg	yes	24 day
searchitem 2	24 mg	yes	20 hours
searchitem 3	19 mg	no	30 hours
searchitem 4	28 mg	yes	18 hourst
searchitem 5	15 mg	no	48 days
searchitem 6	21 mg	no	55 hours
searchitem 7	25 mg	yes	24 hours
searchitem 8	20 mg	yes	22 hours

searchitem 1	searchitem 2	searchitem 3
20 mg	24 mg	19 mg
yes	yes	no
1 day	20 hours	30 hours

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UNDERSTANDING COMPLEXITY

New Displays for New Visions

Time - Location - Personalization - Interactivity

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TAKING ADVANTAGE OF COMPLEXITY

Digital Signage and Mobile Devices create Proximity Environments

Time - Location - Personalization - Interactivity

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TAKING ADVANTAGE OF COMPLEXITY

Time
Location
Personalization
Interactivity

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TAKING ADVANTAGE OF COMPLEXITY

Time
Location
Personalization
Interactivity
Proximity

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ACCESS and **DISPLAYS**

CONTENT

PRODUCTION PROCESSES

DISTRIBUTION

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ACCESS and **DISPLAYS**

CONTENT

PRODUCTION PROCESSES

DISTRIBUTION

NEW NARRATIVE DESIGNS

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TOWARDS A COMMUNICATION CONTINUUM

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Targeting The Shopper



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Decrease in Noise

- Integration of different Displays
- Adaptation to Content and Context

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Digital Signage - Features - 1

Initial cost higher than traditional systems, BUT

- Stronger perceptual Impact
- Stronger Attraction - Gathering Attention
- Higher Level of Maintaining Attention
- Multiple Messages on a single Display

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Digital Signage - Features - 2

Initial cost higher than traditional systems, BUT

- Messages can be changed in time according to location and audience
- Rapid turnover of information and messages

Adaptation to Content and Context

Digital Signage - Features - 3

- High visibility
- Possible adaptation to ambient lighting conditions
- Lower and lower power consumption
- Low maintenance costs
- Colorimetry control

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Digital Signage - Features - 4

- Overall VERY HIGH COST EFFECTIVENESS
- NEW REVENUE STREAMS
- CENTRALIZED CONTROL OF THE NETWORK

Adaptation to Content and Context

Forecast:

Digital Signage will become a market worth 12-15 Billion dollars by 2010-2012.

Highest yearly increase with Internet and Mobile Phones.

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**DIGITAL SIGNAGE
CAN BE A ONE-TO-MANY
COMMUNICATION ENVIRONMENT**

BUT

**IT CAN EXPLOIT
PROXIMITY - INTERACTIVITY - PERSONALIZATION**

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**IT CAN USE
LOCATION BASED**

**INFORMATION
ADVERTISING
GAMING**

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THE WINNING COMBINATION

is

Information
Advertising
Security-safety

Time - Location - Personalization - Interactivity
Proximity

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THE WINNING COMBINATION

is

Dynamic Digital Signage
Smartphones
Advanced Mobile Devices

Time - Location - Personalization - Interactivity
Proximity

Cesare Massarenti

THE WINNING COMBINATION

is

Dynamic Digital Signage

Smartphones

Advanced Mobile Devices

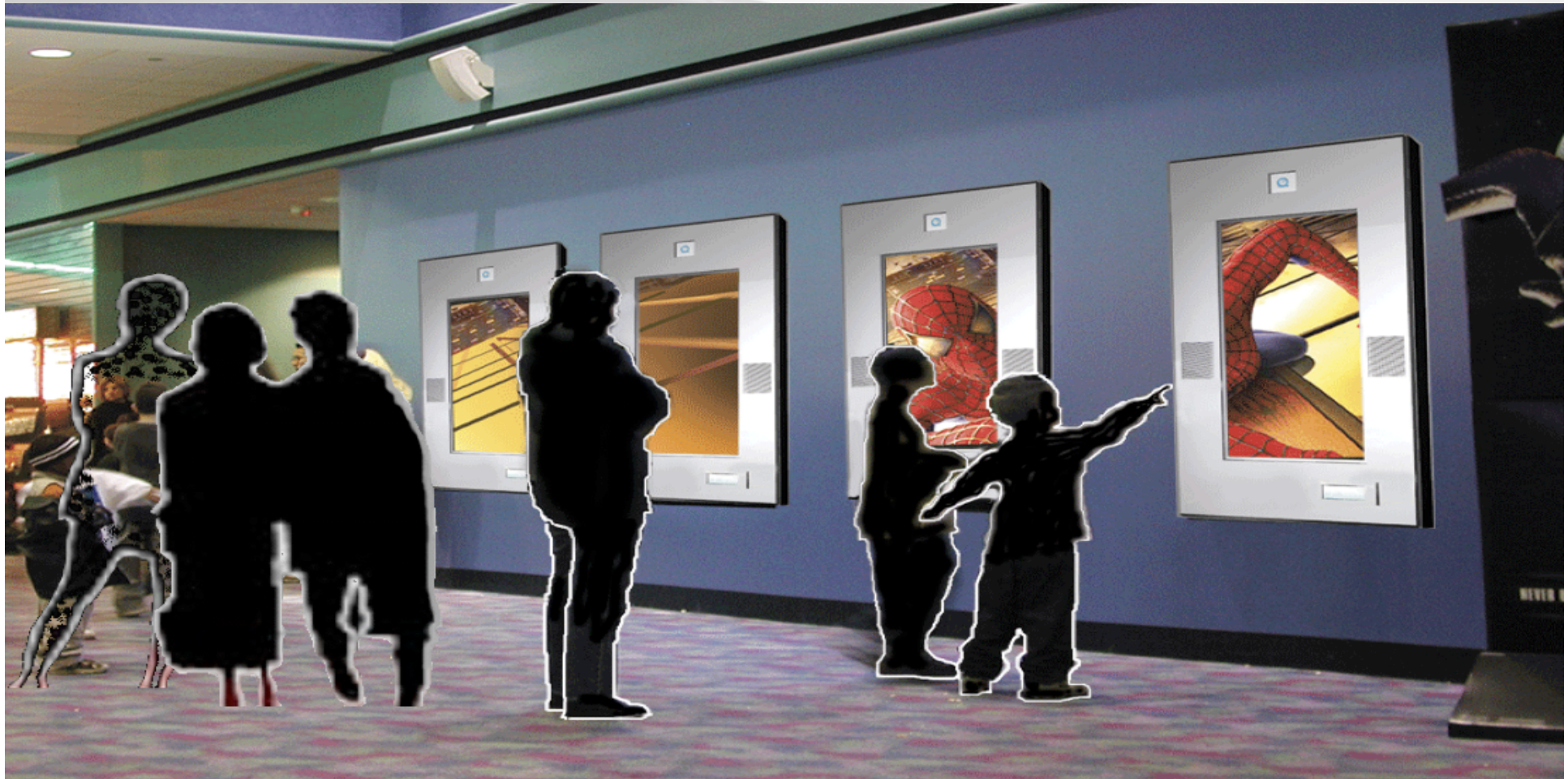
Payments with Mobile Phones

Time - Location - Personalization - Interactivity

Proximity

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INTERACTIVE POSTER



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INTERACTIVE TOTEM



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PANINI PROSCIUTTO CRUDO MOZZARELLA
1,59 dalle 12h45 alle 13h15 >>> a 10 m.



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Video camera HD solo
E 229,00
dalle 15h alle 15h30 >>> a 20 m.

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A fundamental change is taking place in the design of access devices:

until recently, devices for use in mobility
were designed as adaptations of devices
for access to content in static situations:
home/office.

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Now, almost all access devices are designed for mobility and are **then** adapted for use in static situations:

**v. presentation on Jan 27th of the iPad by Steve Jobs:
the first image shown on the iPad was identical to what we would see on an iPhone.**

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Images and sounds
used in digital signage are
representations of
products, services, brands, moods.

They are not the objects.

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**The wrong representation
will disappear in ambient noise
and can even have
a negative effect.**

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The coherence of messages
across different media and platforms
is more important than
repeating it over and over.

TV vs.

Signage, Mobile Devices, Internet.

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3D IMAGING

The future that is
(almost)
already here.

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3D IMAGING



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3D IMAGING



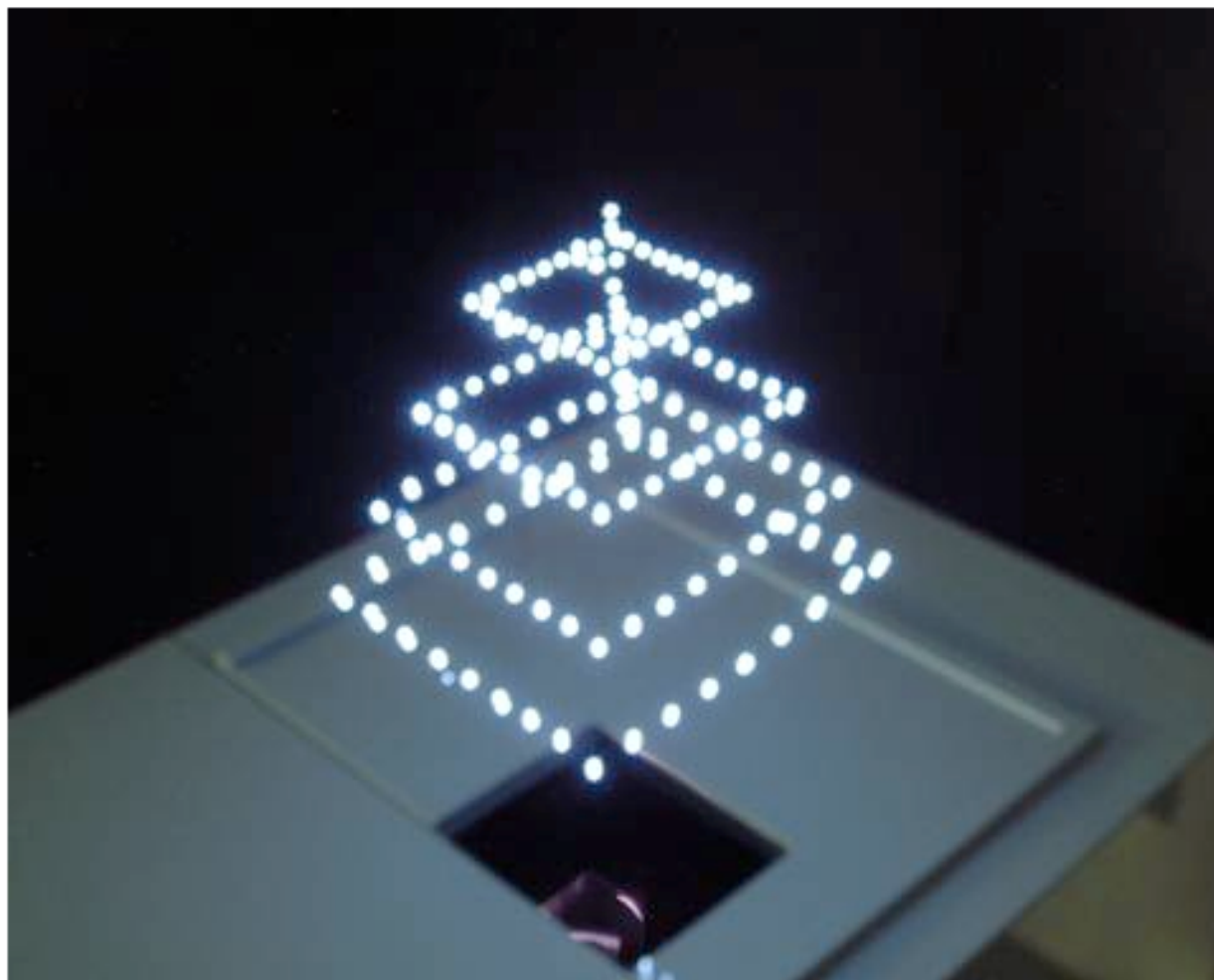
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3D DISPLAY



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360° HOLOGRAM



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SKILLS
PROFESSIONS
MULTIPLE TASKS

LIFELONG TRAINING
CONTINUOUS INNOVATION

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René Magritte, *La trahison des images*, 1928–29.

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END

Part 1

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Theoretical framework:

Claude Shannon - The Mathematical Theory of Communication

Fritz Heider - Theory of Interpersonal Relations

Erving Goffman - The Presentation of Self in Everyday Life

Joseph Berger - Sociological Theories in Progress, New Formulations

Cesare Massarenti - A general Model of a Communication Continuum

Cesare Massarenti



Prof. Cesare Massarenti

**Università di Milano-Bicocca - Politecnico di Torino
Stanford University**

5 March 2010

