

Sustainability and the Internet of Everything

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December 7th, 2017

Sustainability and Computation

GASA, FCT-UNL 1992-2005

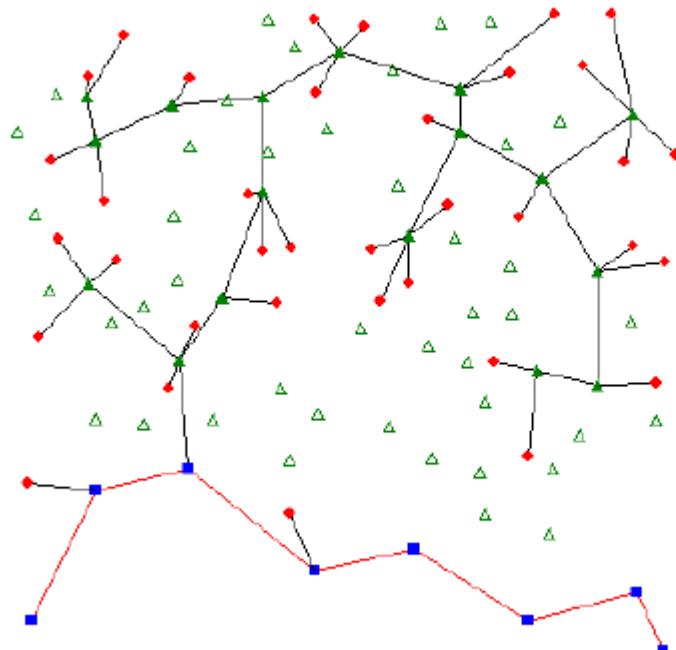


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Virtual Reality, Digital Portugal, Expo98

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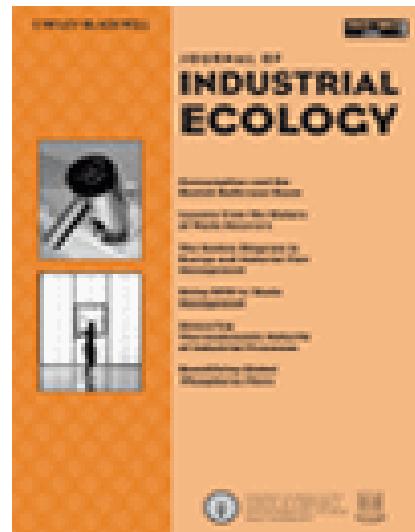
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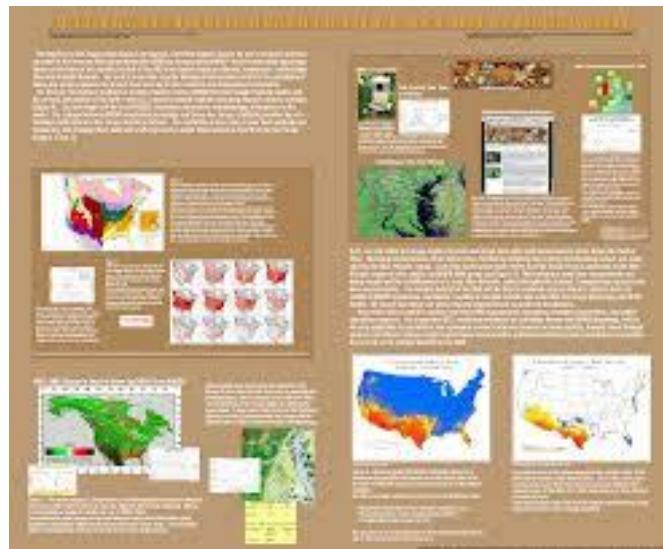


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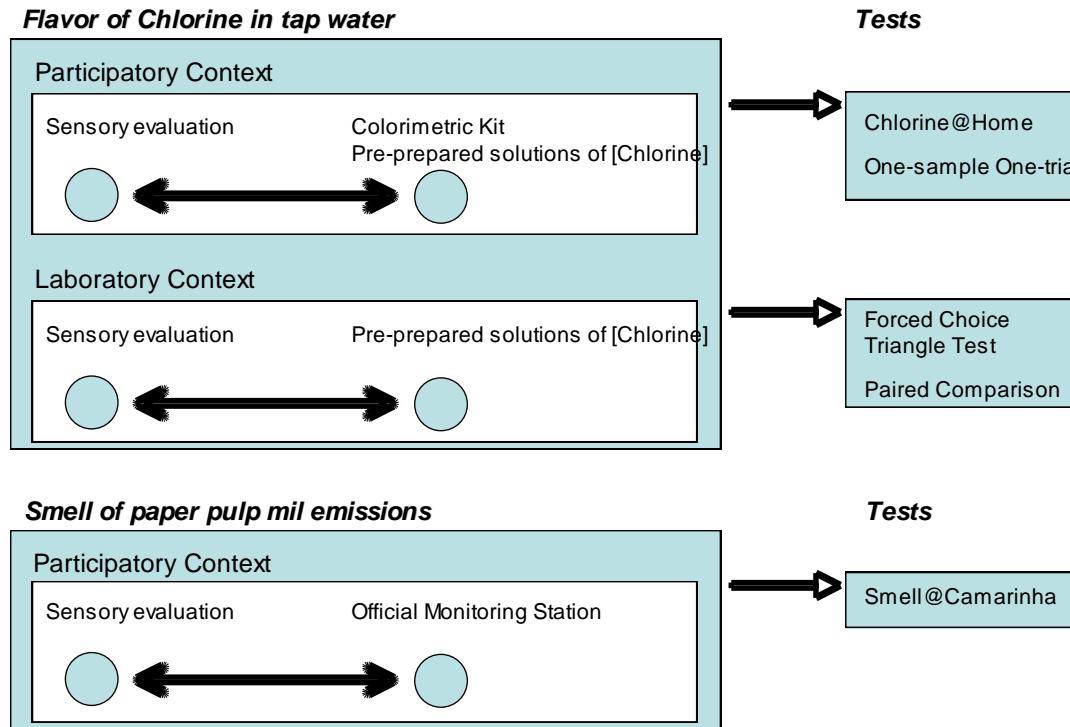


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Promoting the Use of Environmental Data by Concerned Citizens Using ICT.
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YDreams, 2006-2016

Rock In Rio

<http://tinyurl.com/gqgxrd>

Amazon by Natura

<https://tinyurl.com/y7tmpxjp>

Interactive Facade

<https://tinyurl.com/yb9v2obf>

Hear the City

<https://tinyurl.com/yah2gsbj>

Collective Urban Game

<https://vimeo.com/98552951>





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YDreams, 2006-2016

REAL WORLD REAL TIME GAMING



Realsim

A virtual car (remotely controlled by a user) introduced inside a real time broadcasted scene. The virtual car will not affect the real ones but can be affected by them. If a real car "collides" with the virtual one it will be projected out of the track.



Flapy — Augmented Playground for childrens

Virtual characters real-time interaction with humans and physical spaces in a new seamless dimension

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BRIDGING THE REAL AND DATA WORLDS — A COMMON VIEW

The Real World

- People and other living organisms
- Places
- Objects
- Experiences

- Real and Data Worlds are bridged by
- Computer Vision
- Other Sensors
- Natural Language

The Data World

- Real time Data
- System Data
- Online Behaviour

- Data on the Real World is commonly accessed using URLs of Web Addresses

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ADDING AND “TAGGING” INTELLIGENCE IN OBJECTS



- **Augmented reality**

By image recognition:
"It is a bottle"

By reading the bar code:
the cost is 50c

By using a QR CODE:
extended descriptions, images, videos

- **Sensorization**

RFID: may provide detailed product information including the possibility of positioning

Additional sensors: may provide quality related information such as Ph and temperature

- **Robotics**

Sensors/actuators/processors — A bottle may have a robotic exo-skeleton



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AUGMENTED REALITY

Additive

<https://tinyurl.com/y7slgvjd>



<https://tinyurl.com/ybgkxly2>

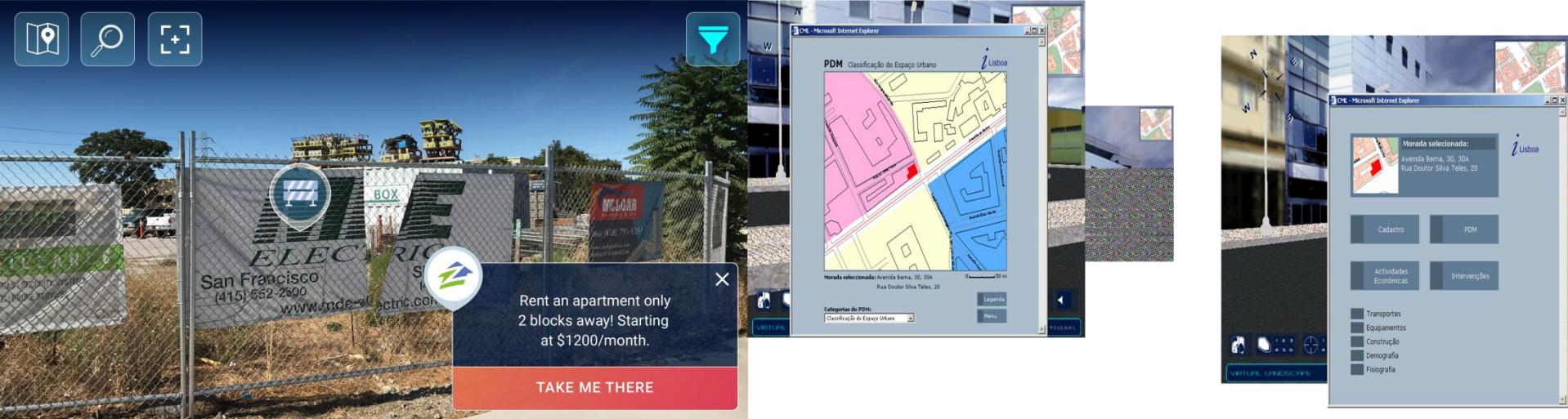


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AUGMENTED REALITY

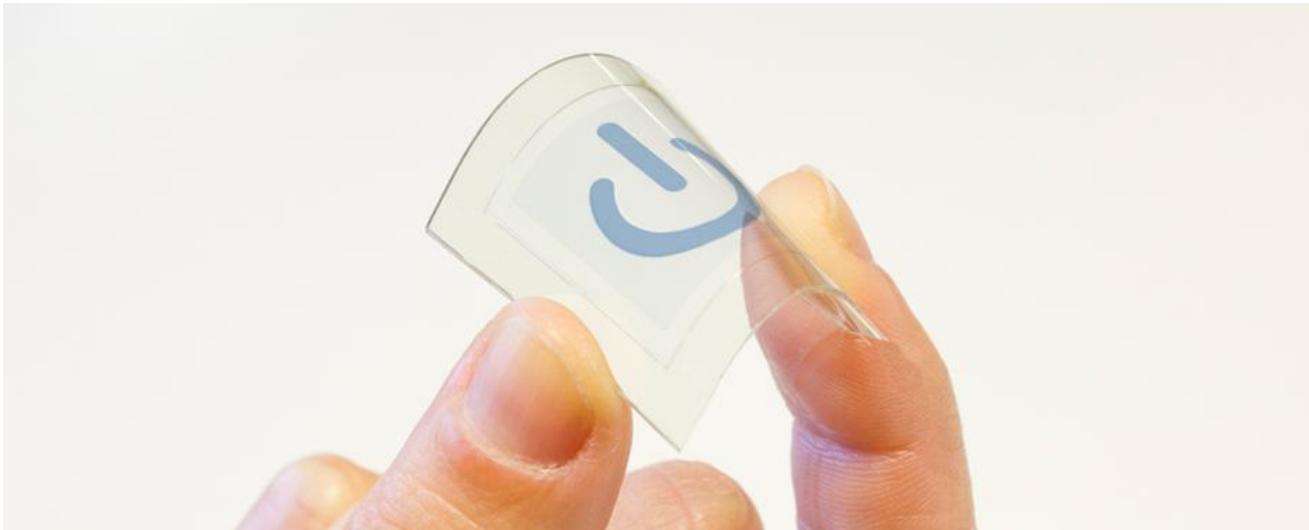
As a new computing platform



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PRINTED ELECTRONICS

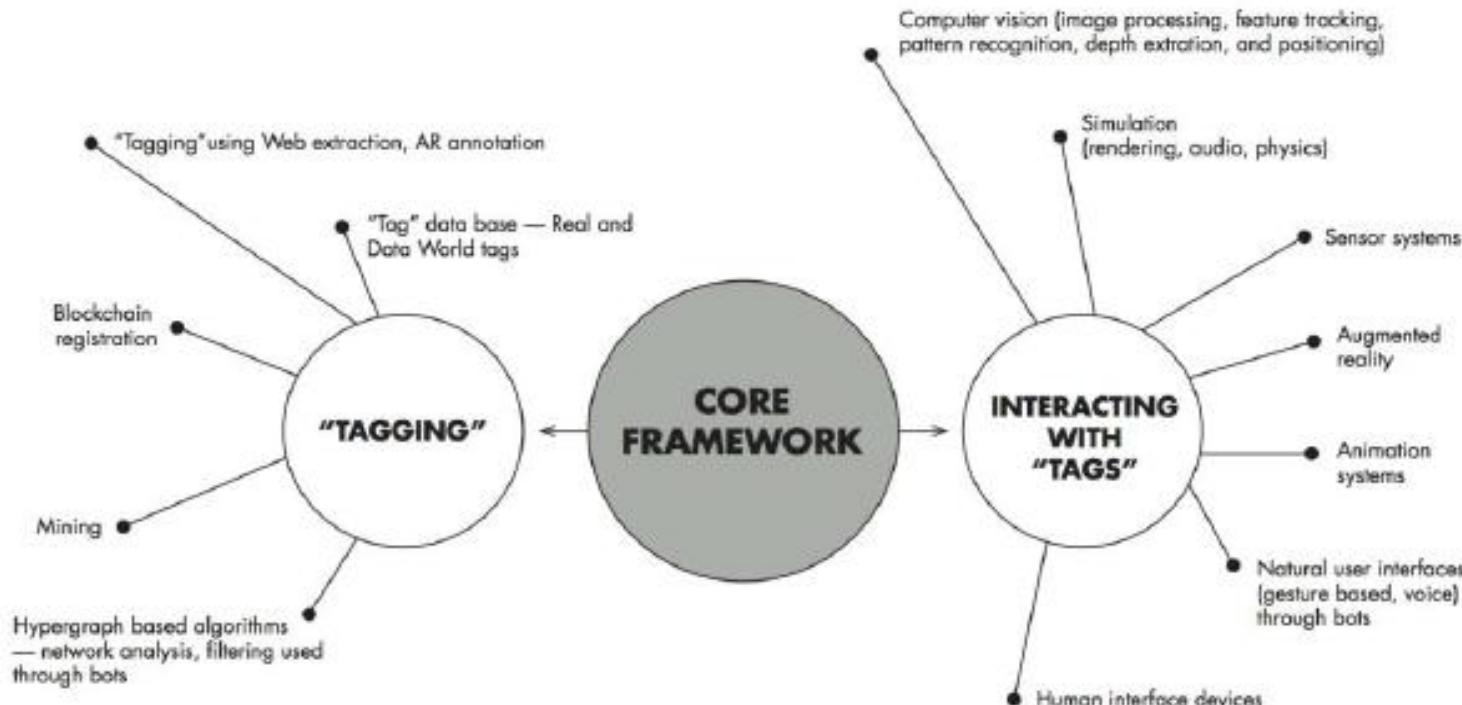


<https://tinyurl.com/y8y6md4h>

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ARIA — COORDENATING CORE BASED PLATFORM



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ARIA

- World as a browser
- Micro-geography
- Improved search
- Improved privacy issues
- Universal sharing system
- Distributed versus broadcast*
- Hyperlocal economies

USN: Universal Sharing Network

Trustless Trust: Trust without Trust



A radically simplified user journey
Open the app > Find object > Pay for it > Use it

Source: slock.it

KOZAZA

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<https://www.cense.fct.unl.pt/>

www.aromni.com

www.ynvisible.com

www.ydreamsglobal.com

<http://ygroup.eu>

<http://explora.live>