Intelligent cities: from digital to social analogic

Luis Borges Gouveia
lmbg@ufp.edu.pt

Contemporary Architectural Challenges 08
CAC 2008
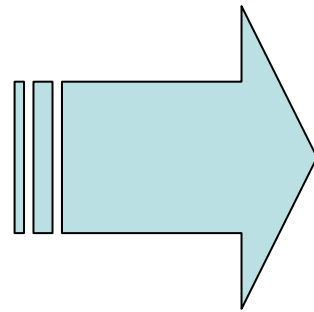24th September, Porto – FA, UP

Some remarks...

A digital approach to our time-space living
Luis Borges Gouveia, DC Summit, 25th September, 07

Motivation

- Any motivation will do in case of being possible to share the same time-space context with some sense of balance

- Urban settings
- Economy
- Ecology
- Market

Information based
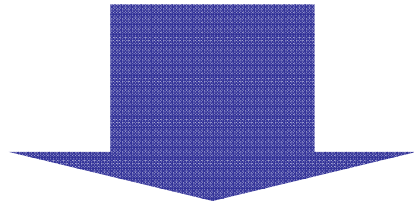
Powered by knowledge

Digital

Information society

- *a society where information and communication technology are the primary resource to exchange digital information, and to support interaction between individuals using practices and methods in permanent change (Gouveia and Gaio, 2004)*
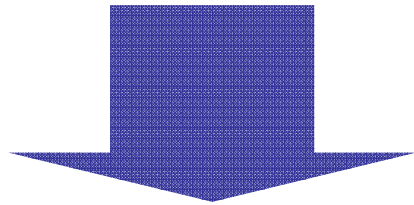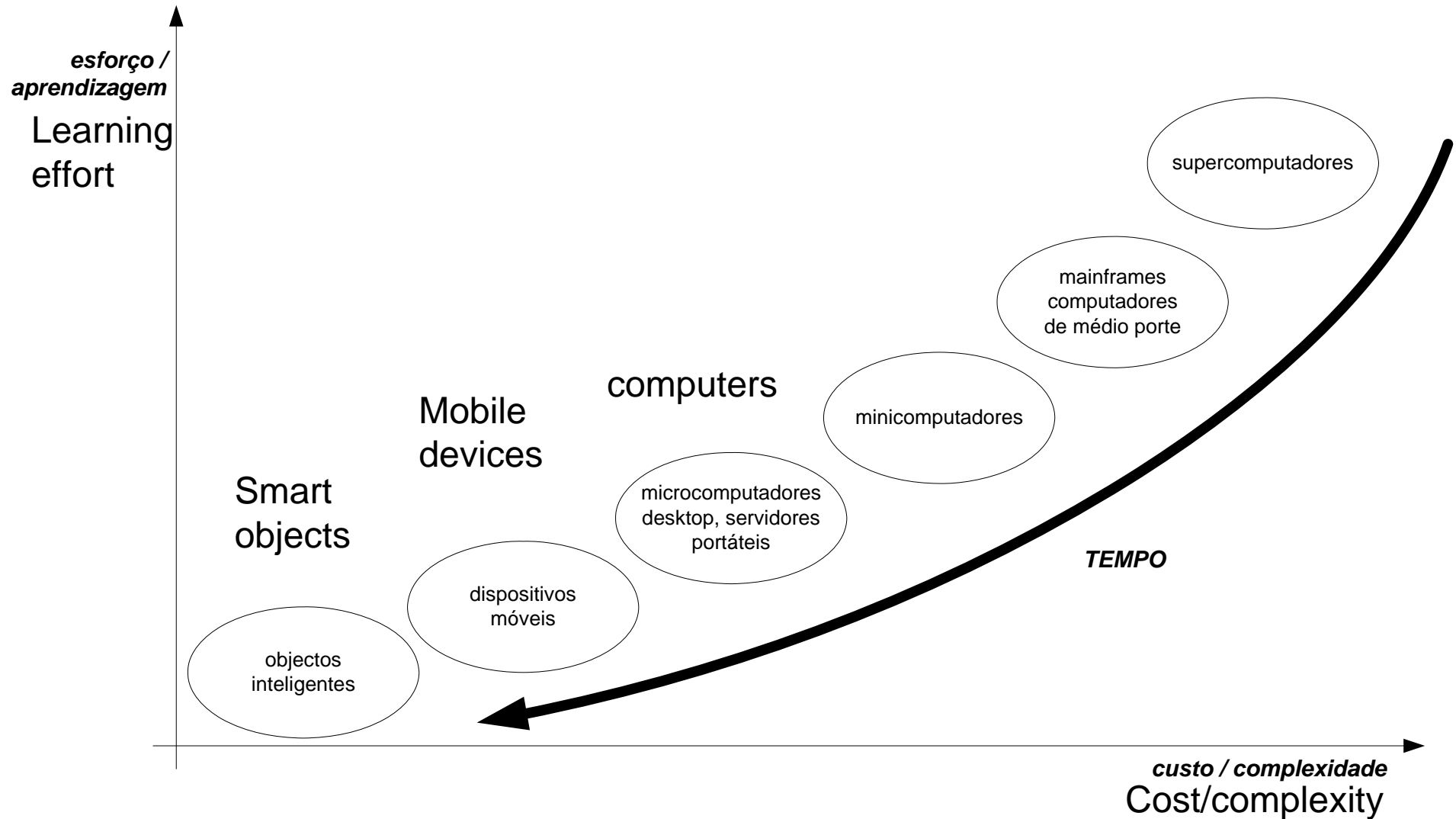
Information society

Heavy use of ICT

⬇

Growing use of digital

⬇

Network organisation

But... Where is the computer!

But... Where is the computer!

- Networked hidden and
- Transaction related

"somewhere among us"

Make us remember some religious stuff

From the analogic to the digital "world"

- learn...
  - In the analogic, memorise to learn
  - In digital, forget to learn
- work...
  - In the analog, take time to work
  - In the digital, work without taking time
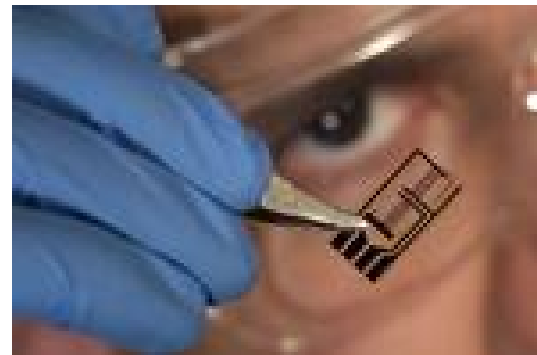
Additional notes

- Knowledge rate substitution
  - Something between 20% to 25%
  - This means that we need to replace knowledge every 4 – 5 years
- As a result, a territory must be also organised with the ability to produce knowledge
  - Need schools, research and focus
  - Additional concerns to add to energy, water and other stuff

Knowledge

Major component of any activity, and the **driving force of change and innovation**

(UNESCO, 2005)

Globalization of ICT

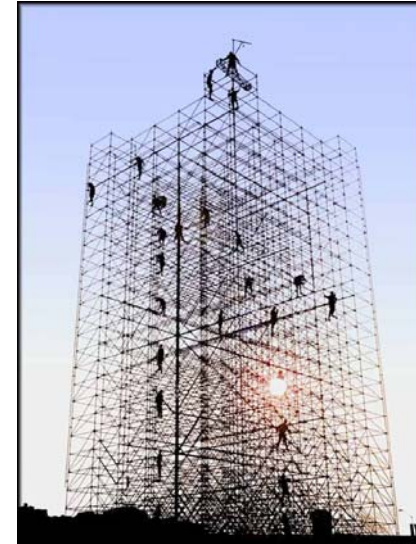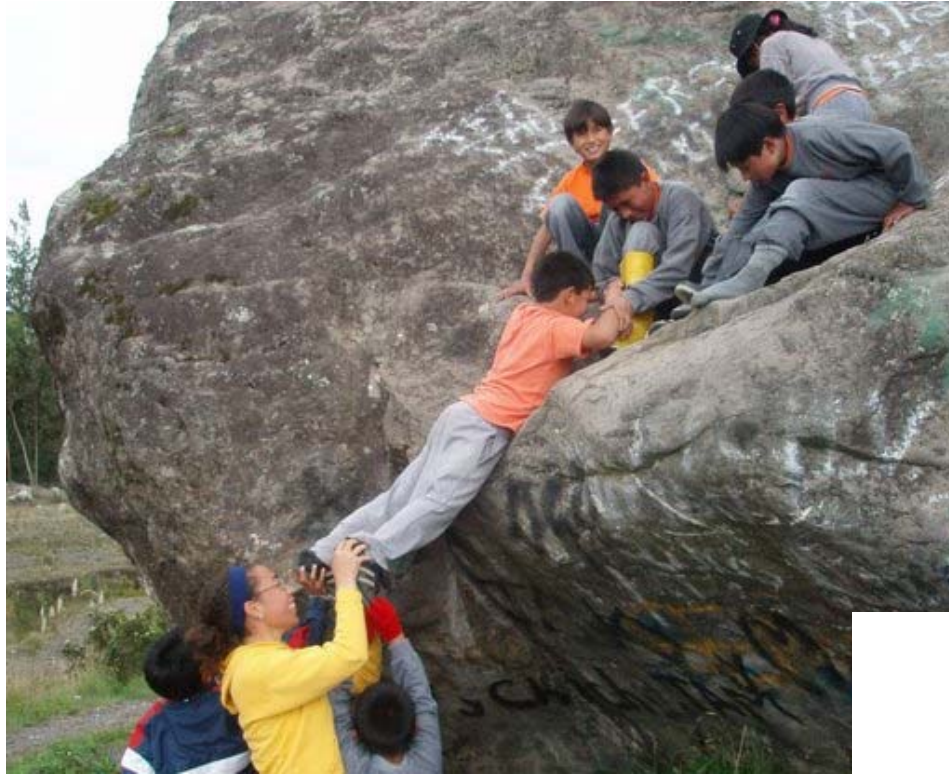# Who cares?

Nations, employers and governments require people who are able to build communities, and to communicate in innovative ways, in the realm of their activity (HERRINGTON & HERRINGTON, 2005).
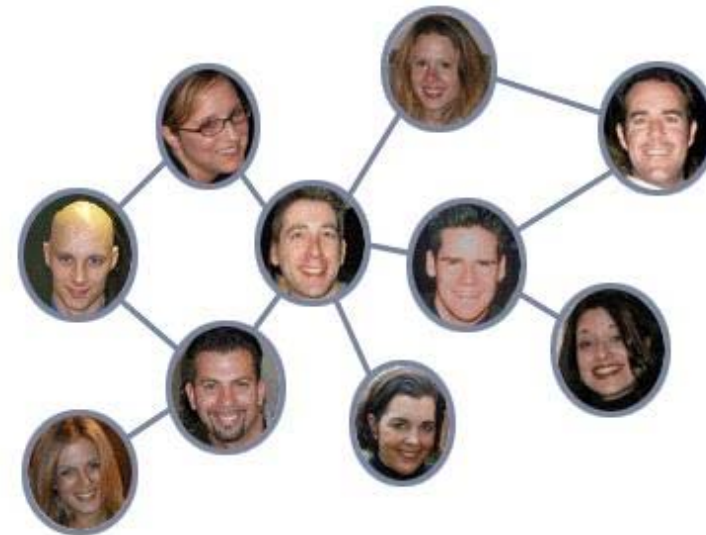
NEW PLACES NEEDED

! or . or ? or even !?

Social Constructivism VYGOTSKY (1978)

also Connectivism

Net Generation

1. **Multitasking** capabilities

2. Preference toward **knowledge construction** (rather than instruction)

3. Little tolerance for delays: technology allows **immediacy**

4. Easiness in interactive settings: **actors**, not just viewers

(TAPSCOTT, 1997)

Digital Native vs Digital Immigrants

A *Digital Immigrant* compares to a *Digital Native* in the same way a native English speaker compares to a person who starts using English in his/her adolescence or adulthood

(PRENSKY, 2002)

Final Remarks

1. To take advantage of the *network effects* of new tools in our places (real & virtual), open, participatory architectures for (ICT?) systems must be in use

2. People must be allowed and encouraged to produce their own setting (content + context + environment)

3. Use Web 2.0 to enhance the dynamics of communication between life, work and place, thus creating meaningful experiences (both physical & virtual)

Has a PhD in Computer Science (University of Lancaster), a Master in Computer and Electro technical Engineering (FEUP), and a BSc in Applied Mathematics (UPT), his current position is Associate Professor at Science and Technology Faculty, University Fernando Pessoa.

He is involved in projects dealing with the use of computers and networks to support humane mediation as the case of Gaia Global (2001-2005), and the Virtual University (2005-2008). His work studies the relation of individuals and groups with information and knowledge and the implications of the digital for the concepts of time and space. See the blog at *lmbg.blogspot.com*.

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The compound effect of globalisation (in its second version) with the pressure of sustainable development and the economic and social impact of Knowledge Society demands almost the everyday rethinking of our concept of life space.

A September 08 version of those mental exercise need to include how computers and networks would affect the way knowledge help the wealth creation to allow cities inhabitants to life well that justifies the investments needed to them. The talk aim to share what is an apparent paradox between people, quality of life, and knowledge. IT also proposes the concept of knowledge efficiency to identify such paradox. It also adds the need to consider the role that life spaces and related policies concerning their integration with digital issues have to the wealth creation using knowledge.

As a result, it is defended that intelligent cities must be reinvented in the context of the people who live in, and take into consideration which knowledge is expected that they may foster.