



# e-Planning Core

## •Salto Qualitativo das TIC

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<b>e-Planning scientific sub-domains</b>	<i>Summary of key objectives</i>
<i>e-Planning Theory and Methods</i>	<i>Build a common scientific identity for e-Planners. Master the boundaries of the e-Planning Agenda. Develop core analytical tools and methodologies.</i>
<i>e-Planning Knowledge Infrastructures</i>	<i>Mapping of the knowledge society. Mapping of the planning knowledge. Develop the new ICT infrastructures and strategic frameworks</i>
<i>e-Government</i>	<i>More efficient and responsive government, closer to citizens; better enabling role; better services; better adjustment to the challenge and new potential of digital implementation of administrative procedures, beyond raw automation; two-way G2G, G2C, G2B.</i>
<i>e-Governance</i>	<i>Foster institutional culture towards the common good, more equity and less exclusion; build strategic institutional capacity within globalized world; better institutions; better regulation framework and handling of market failures; better balance of security &amp; efficiency vs. freedoms, liberty and accountability.</i>
<i>e-City and Territory</i>	<i>Build the cities of the future, as sustainable environments with new functionality that breed innovation; foster cities with better quality of life, more attractive and competitive; better spatial planning, promoting social and territorial cohesion, incorporating new structural impacts of ICTs.</i>
<i>e-Citizenship</i>	<i>Enable a better informed and educated citizen, more participative, more critical, more responsible; better balance of technology challenges with ethics &amp; individual freedoms &amp; privacy.</i>



# TIC recentes são um Salto Qualitativo?



## **Salto Qualitativo das TIC:**

1. A Natureza das Tecnologias de Informação
2. A Natureza da ultima geração das TIC
3. O “enabling factor” dos desenvolvimentos TIC no que respeita aos Modelos Sociais de Decisão



# Salto Qualitativo das TIC:

## 1. A Natureza das Tecnologias de Informação

- Termodinâmica e teoria da informação (entropia negativa)

(  **$I = \log_2 1/P$**  ;  **$S = K \log_e P$**  *K -> Ct. Boltzman* )

- Ganhos de eficiência de motor / transferências energéticas (transferência calor e feedback, Watt)
- Extensão do cérebro vs. Extensão do músculo.



# Salto Qualitativo das TIC:

## 2. A Natureza da ultima geração das TIC

- Novos Modos de Competição (ex. mudar de marca vs. curva de aprendizagem software + compat.; cativação de mercado)
- Novos Modos de (re)Produção (ex. fabrico e stock de produtos "hardware" vs. duplicação de software)
- Novos Modelos de Negócio (ex. Microsoft vs. OpenSource; cativação temporal ISPs e-escolas)
- Novos Modos de Organização (ex. mainframe vs. portátil; "chain of tenure" -> papel vs. email)



## TIC e novas “Falhas de Mercado”

1984

(Apple\_1984.mov)





### **3. O “enabling factor” dos desenvolvimentos TIC no que respeita aos Modelos Sociais de Decisão**

*Democracy cannot extend beyond the reach of  
a man's voice*

(Plato, according to Wriston)

*Who will serve (the state) has its herald  
unless he has the lungs of a Stentor?*

(Aristotle, Polit, VII, 1326 b, 7-11)

to know each other [personal character] therefore it is clear that is / for it to be a state  
limiting principle the best the expansion [dimension, size] of the population / multitude  
the largest / hiperbole / expansion so that city (autarcy) life can be taken in at one view  
(sinoptic)

Table 7.3.1.-1 - Period before broadcasting

>600 BC	The abacus (=arithmetic unit of CPU) is invented in China
387 BC	Foundation of Plato's Academy
1450	Printing press invented (Johannes Gutenberg)
1876	First telephone patent (Alexander Bell)

Table 7.3.1.-2 - Period between broadcasting and microcomputer + world wide network

1906	First broadcast of human voice, AM radio (Reginald Fessenden)
1930	18 million radios owned by 60% USA households
1936	Regular TV broadcast begins in UK
1956	72 % USA households own a TV
1968	First ARPANET (IMP), installed at UCLA (precursor to INTERNET)

Table 7.3.1.-3 - Period after microcomputer + world wide communications network

1971	First microcomputer in USA
1972	Created the InterNetwork Working Group, creating the INTERNET
1975	First Personal Computer (PC) introduced
1991	First Internet Web Server and Web Browser (CERN)
2001	529 million people on-line (Internet)



### 3. O “enabling factor” (factor de potenciação) dos desenvolvimentos TIC no que respeita aos Modelos Sociais de Decisão

In (Ferraz de Abreu) , 2002"New Information Technologies in Public Participation: A Challenge to Old Decision-making Institutional Frameworks"

Tecnologias de Informação	Atributos	Modelos de Decisão
voz  manuscrito	<ul style="list-style-type: none"> <li>• de "poucos" a "poucos"</li> <li>• alcance limitado</li> <li>• sem processamento auxiliar</li> <li>• acesso barato, universal</li> <li>• custos de controle baixos</li> </ul>	<p><u>democracia directa</u></p> <p>imperios heterogenios</p>
imprensa  radio  TV	<ul style="list-style-type: none"> <li>• de "poucos" a "muitos"</li> <li>• alcance ilimitado</li> <li>• com processamento na fonte</li> <li>• acesso muito caro, restrito</li> <li>• custos de controle medios</li> </ul>	<p><u>democracia representativa</u></p> <p>ditaduras homogenias</p>
rede satelite  rede fibra optica  $\mu$ computador	<ul style="list-style-type: none"> <li>• de "muitos" a "muitos"</li> <li>• alcance ilimitado</li> <li>• com processamento na fonte e no destino</li> <li>• acesso custo moderado, potencialmente universal</li> <li>•custos de controle altos</li> </ul>	<p><u>democracia participativa</u></p> <p>ditaduras tecnocratas</p>



# Post-Salto Qualitativo das TIC

## *Os novos desafios:*

- Abilene Network (Internet II)
- WWW vs Modelos proprietários
- Ecosistemas de TIC fechados
- Infraestruras TIC assimétricas



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