



e-Planning Core

Fundamentos de e-Planning

•The ICT Qualitative Leap

2007-2023

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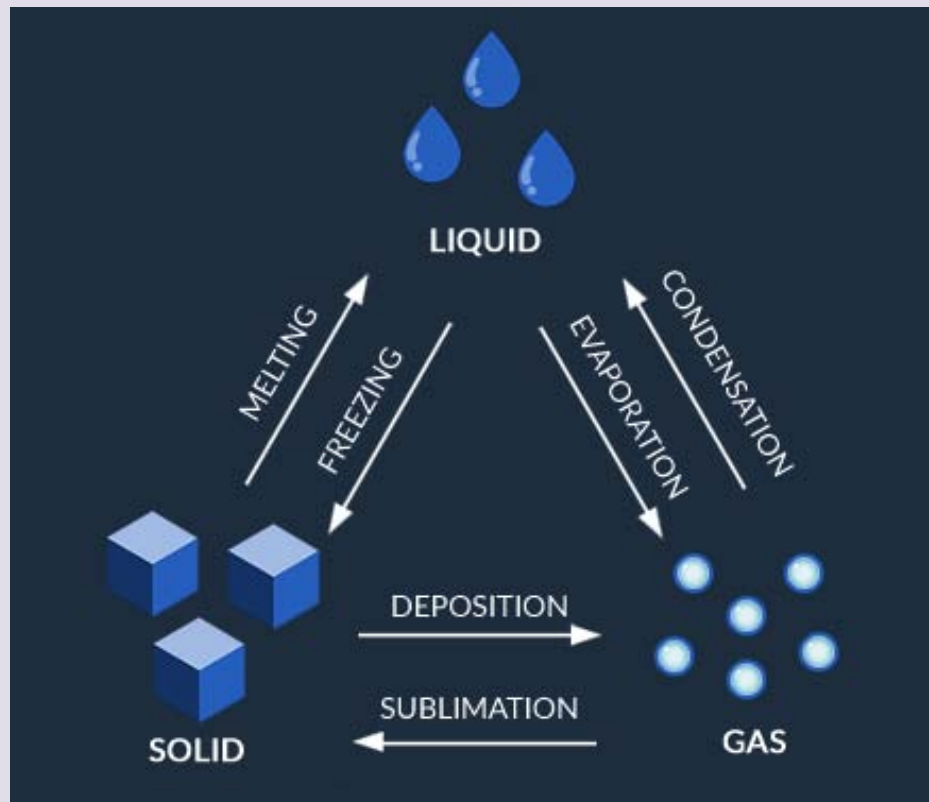


Are recent ICT developments a Qualitative Leap?

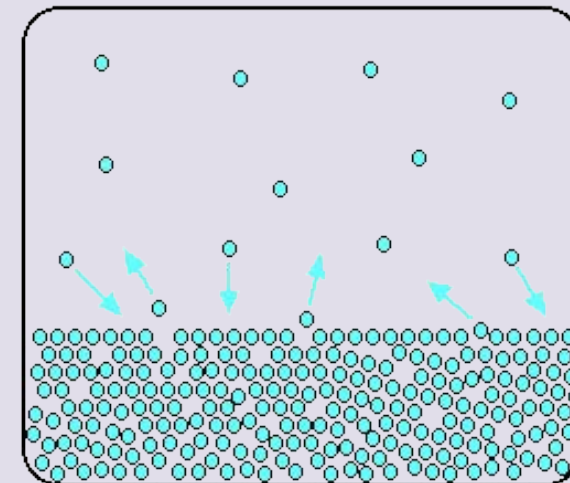
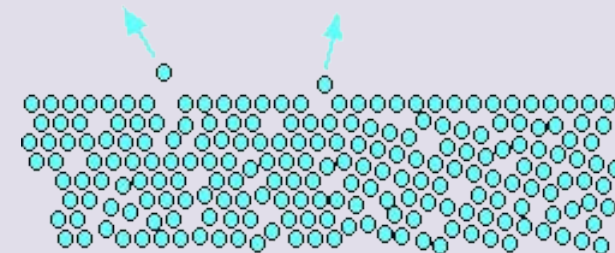
ICT-Information & Communication Technologies



What is a Qualitative Leap?



Some of the more energetic particles escape.





ICT Qualitative Leap:

1. The Nature of Last Generation of ICT:
“enabling factor” and social decision models
2. The Intrinsic Nature of Information Technologies
3. The ICT transversal impact (on economy, sovereignty, regulation, administration...)

ICT-Information & Communication Technologies



1. The Nature of Last Generation of ICT: “enabling factor” and social decision models

*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)

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



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)

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



1. The ICT

“enabling factor”:

Evolution of Information & Communication Technology and its impact on social decision models

In Ferraz de Abreu, P. 2002 "New Information Technologies in Public Participation: A Challenge to Old Decision-making Institutional Frameworks", MIT PhD Thesis

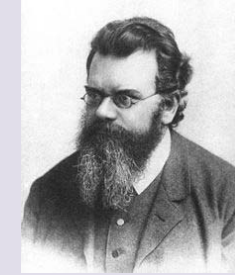
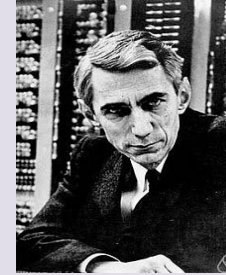
(first working paper, 1994)

(first presented at University of Massachusetts at Dartmouth, USA, October 2-3, 1999)

Information Technology	Features / Attributes	Decision Models
Voice	<ul style="list-style-type: none"> • from "few" to "few" • limited reach 	<u>Direct Democracy</u>
Manuscript	<ul style="list-style-type: none"> • without auxiliary processing • cheap, potentially universal access (low cost to enter the market) • low control / regulatory costs 	Heterogeneous Empires
Press	<ul style="list-style-type: none"> • from "few" to "many" • non-limited reach 	<u>Representative Democracy</u>
Radio	<ul style="list-style-type: none"> • with processing in source 	Homogeneous Dictatorships
TV	<ul style="list-style-type: none"> • expensive, restricted access (high cost to enter the market) • average control / regulatory costs 	
Satellite network	<ul style="list-style-type: none"> • from "many" to "many" • non-limited reach 	<u>Participatory Democracy</u>
Fiber optics net	<ul style="list-style-type: none"> • with processing in source and destination 	Technocrat Dictatorships
μcomputer	<ul style="list-style-type: none"> • moderate access cost, potentially universal (low cost to enter the market) 	
Internet	<ul style="list-style-type: none"> • high control / regulatory costs 	



ICT Qualitative Leap:



NEXT

2. The Intrinsic Nature of Information Technologies



ICT Qualitative Jump - a few key concepts ...

- qualitative jump
- entropy
- engine
- efficiency gains
- wealth
- reproduction costs
- technology
- communication
- media
- power
- decision
- enabling function
- transaction costs
- broadcast vs network
- emitter vs receiver
- download vs upload
- chain of tenure
- locked ict ecosystems



Participatory Science

CITIDEP PROGRAMS

Citizenship & ICT

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www.citidep.net



- ICT & participatory science
- ICT & participatory democracy
- ICT, inclusion & cooperation
- ICT, policy & strategy

CITIDEP +
e-Planning Lab
@ CAPP/TSG



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- ICT & Inclusion, Literacy, Cooperation

- Smart Cities, Cohesion & Participatory Systems

- Internet Governance, Open Data, Security & Privacy



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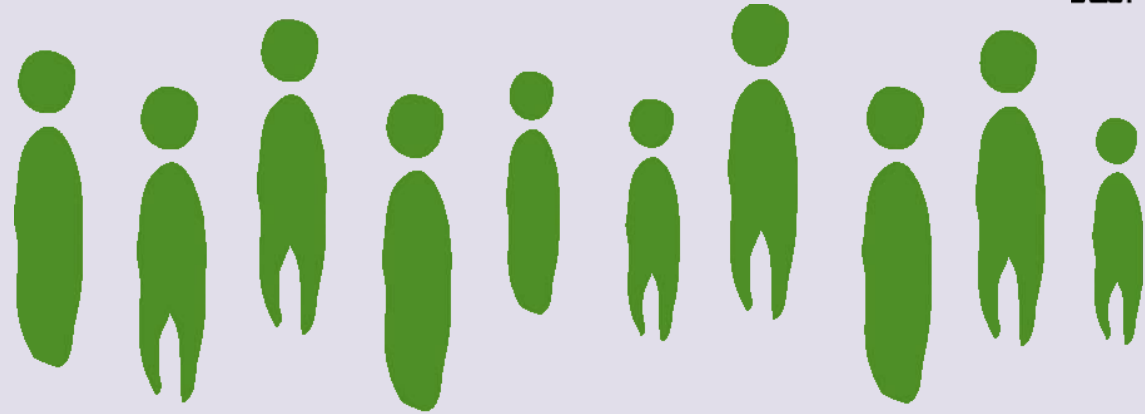
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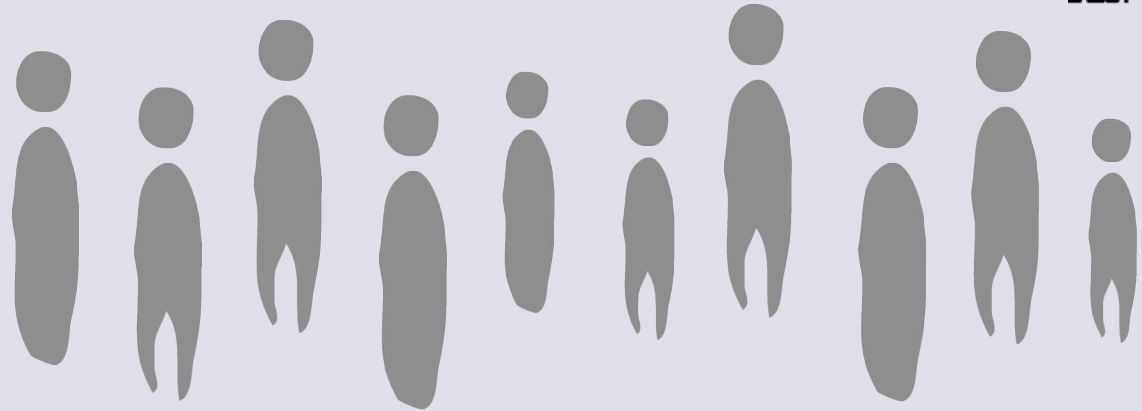
(ficou em fase de proposta na UA)



- ICT & Inclusion, Literacy, Cooperation

- Smart Cities, Cohesion & Participatory Systems

- Internet Governance, Open Data, Security & Privacy



Laboratórios de Tecnologia e Sociedade

2019-2023

FA-UL

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(em fase de proposta na FA-UL)



www.e-planning.org

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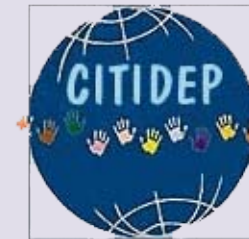


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