



e-Planning Core

•Internet and World Wide Web

2008-21

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internet

computer networks

- What is it
- How was it born
- How does it work
- Who governs it

M.A.D.
arpa.net, bit.net

I.P.



Web

WWW

- What is it
- How was it born
- How does it work
- Who governs it





Web

WWW

W3C

World Wide Web Consortium

Tim Berners-Lee



www.w3.org



hypertext



Web

hypertext

- What is it
- How was it born
- How does it work
- Tools

FTP://

HTTP://

Hypercard

Web Hypertext Application Technology Working Group (WHATWG)

LiveCode



Web

HTML

- What is it
- How was it born
- How does it work
- Tools

W3C HTML Standard 5.0



Web

HTML

- `<html> <head><title> </title><body>
</body></html>`
- `<p> </p> <br> <b> </b> <i> </i>....`
- `<a href=" ..... "> </a>`
- ` </img>`

* URL concept

W3C HTML Standard 5.0



the weight of the word

- What is one byte
- 1 character = 1 byte *Why?*
 - how do we say a number?
 - the value of your relative position
 - the wonders of ... **Zero 0**
 - base 10 and base 2
 - how do we count objects?
 - relação bi-univoca (one-to-one)
 - counting our alphabet
 - representing a character



the weight of the word

- What is one byte
- 1 character = 1 byte
- ASCII & EBCDIC
- Accents & cedilas



what is communication

- theory of communication
- Shannon's equations (*signal / noise*)
- neguentropy

$$(I = \log_2 1/P ; S = K \log_e P \quad K \rightarrow \text{Ct. Boltzman})$$



Web

the universe as audience

The paradigm of boot straps / shoe laces



the universe as audience

The paradigm of boot straps / shoe laces

- interaction out of phase in space
 - cultural context
 - conceptual context
- interaction out of phase in time
 - embedded help
 - interface consistency



Web

the universe as audience

The paradigm of boot straps / shoe laces

- chose de most adequate:

@ representation model

@ media support



ICT - the forgotten "C"

what is communication

Theory of Communication revisited

- measuring information *transfer*
- the 3 core parts (*emission, reception, media*)
- the tools of communication
- the technology of communication

Why do we communicate?



ICT - the forgotten "C"

what is communication

The key concept in communication theory for e-Planning is *knowledge*:

How to acquire it, capture it, develop it, represent it, store it, transmit it...

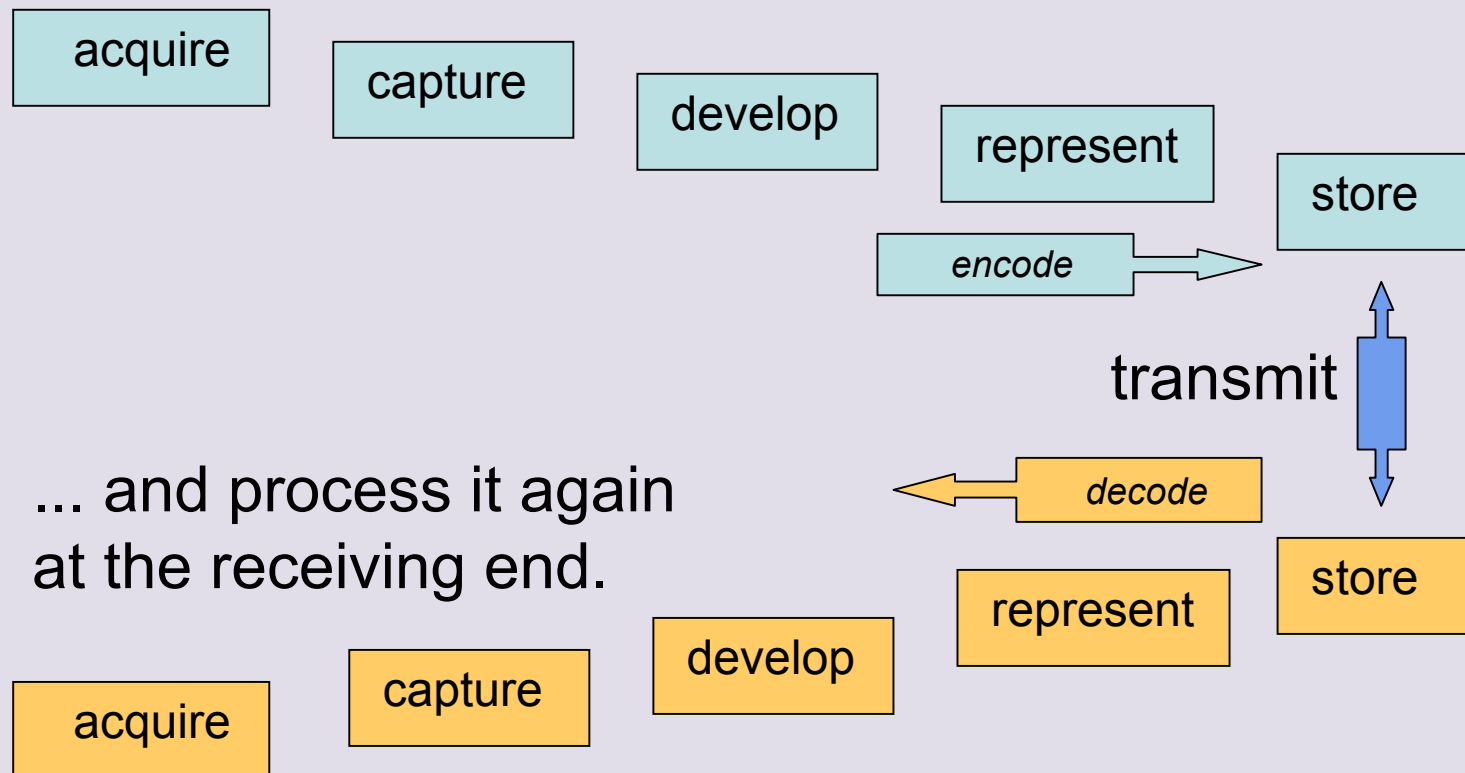
... and process it again at the receiving end.



ICT - the forgotten "C"

what is communication

Information --> *knowledge*:





Revisiting

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"

Information Technology	Features / Attributes	Decision Models
Voice	• from "few" to "few" • limited reach	<u>Direct Democracy</u>
Manuscript	• without auxiliary processing • cheap, potentially universal access (low cost to enter the market) • low control / regulatory costs	Heterogeneous Empires
Press	• from "few" to "many" • non-limited reach	<u>Representative Democracy</u>
Radio	• with processing in source	Homogeneous Dictatorships
TV	• expensive, restricted access (high cost to enter the market) • average control / regulatory costs	
Satellite network	• from "many" to "many" • non-limited reach	<u>Participatory Democracy</u>
Fiber optics net	• with processing in source and destination	Technocrat Dictatorships
μ computer	• moderate access cost, potentially universal (low cost to enter the market)	
Internet	• high control / regulatory costs	



Revisiting

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
- emitter vs receiver
- download vs upload
- chain of tenure
- locked ict ecosystems



Next in line (*on communication*) - sneak preview

Knowledge Representation

Knowledge Transfer

Netiquette



Knowledge Representation

Table 3.3.5.1.-1 - Knowledge Representation Models

Representation	Inference / Reasoning	System Dynamic
Expressions (equations)	Algebra	attribute driven
Rule-Based	Production Rules (forward/backward chaining)	event or attribute driven
Regular Grammars (Automata)	Production Rules (expansion)	event or attribute driven
Semantic Networks	Relational Rules	relationship driven
Object-Oriented	Inheritance (Z,N)	attribute driven
Script/Procedural	Dispatcher	event driven
Frames	Daemons	event driven
Intelligent agents	Blackboard	event driven
Case-Based descriptors	Pattern-Matching	attribute driven

(Ferraz de Abreu, P. 2002).

"New Information Technologies in Public Participation: A Challenge to Old Decision-making Institutional Frameworks"

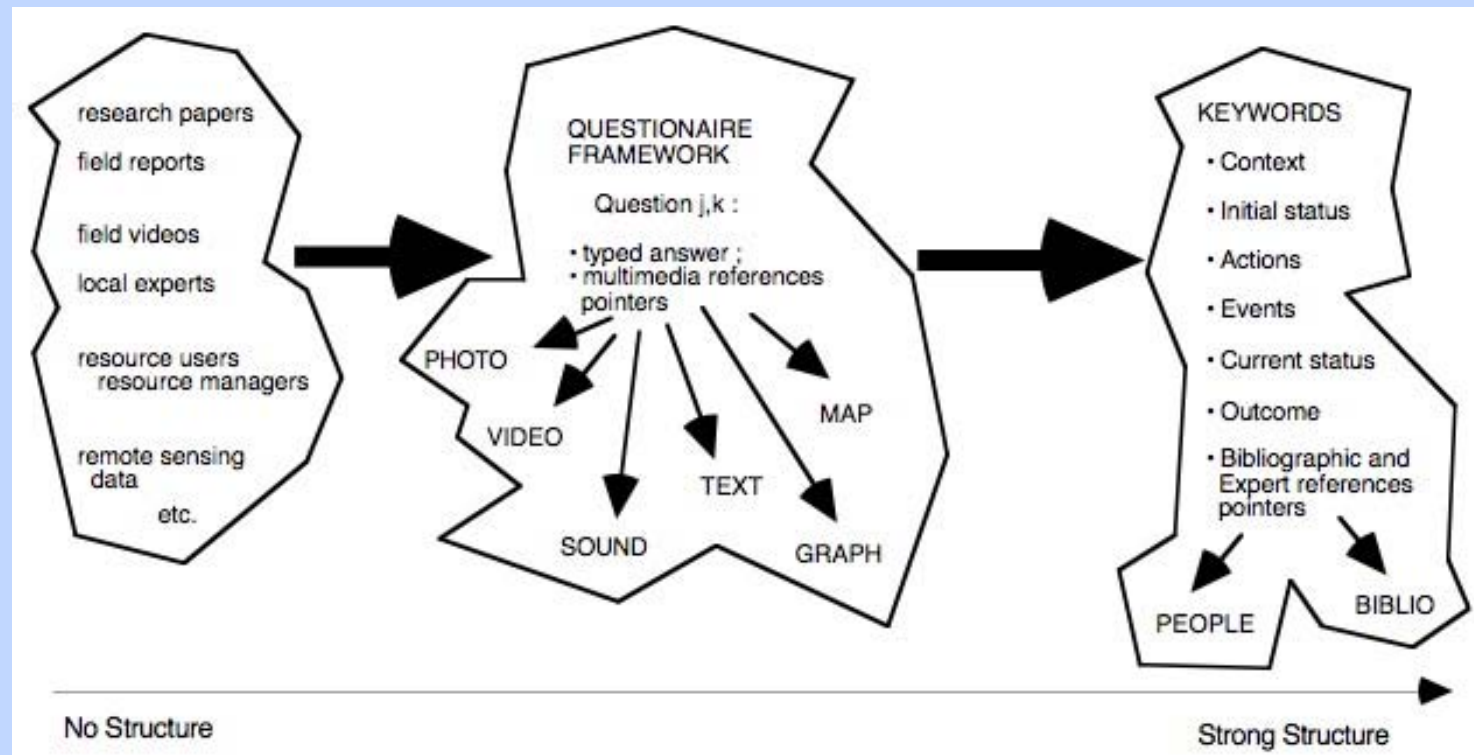


Knowledge Representation

Knowledge-base Model

(Ferraz de Abreu, P. 2002).

"New Information Technologies in Public Participation: A Challenge to Old Decision-making Institutional Frameworks"





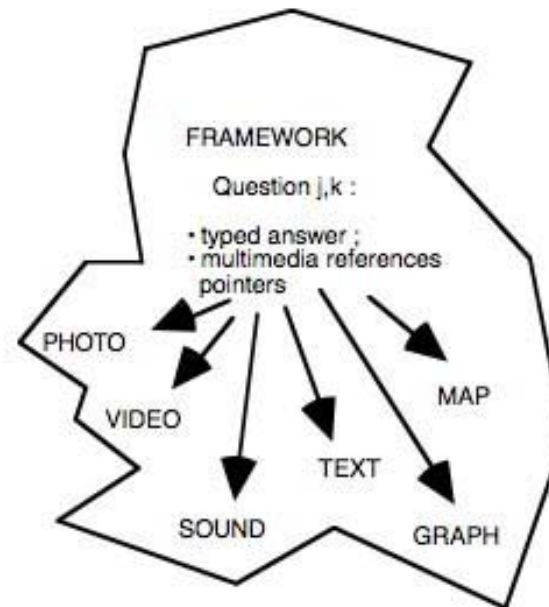
Knowledge Representation

Diferent Media Formats

jpeg
png
gif

mpeg
mov

...



mp3
wma
wav

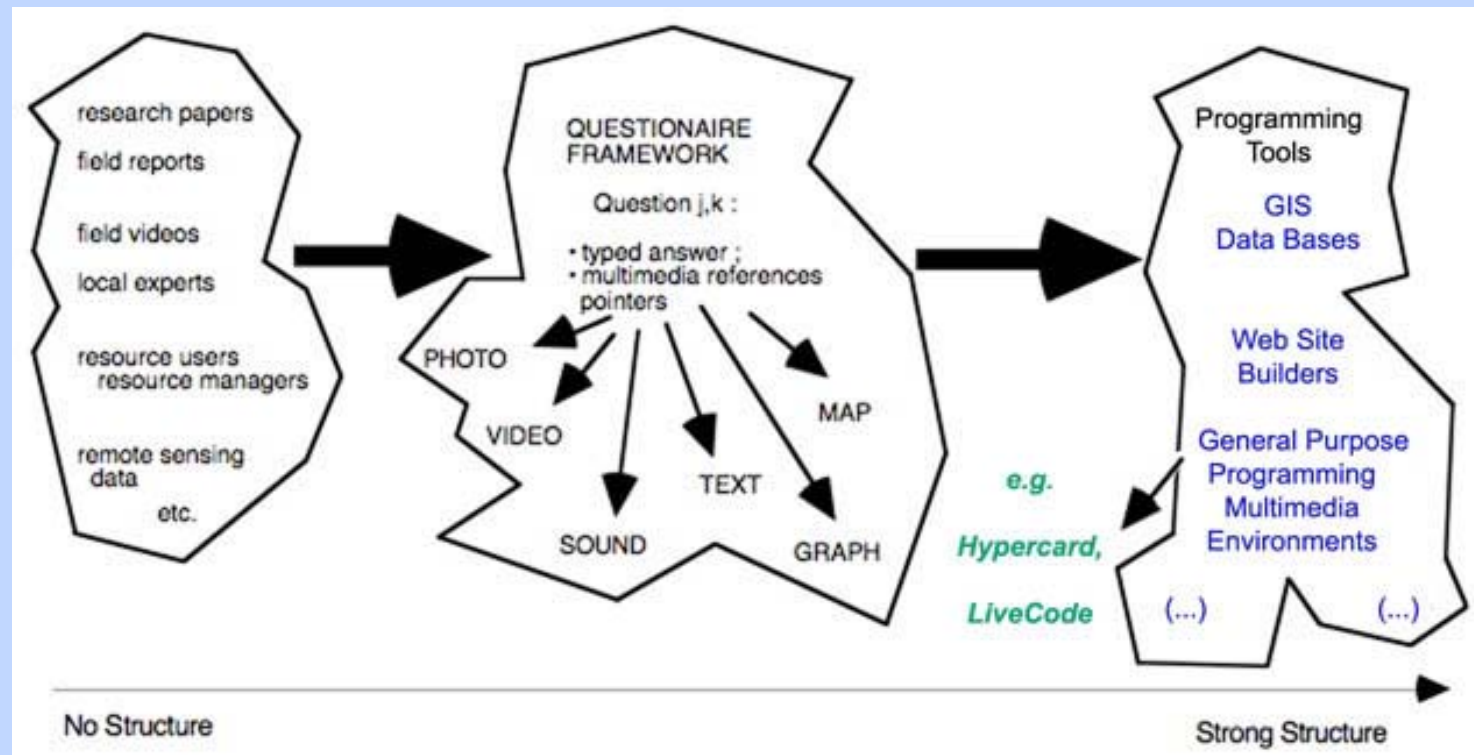
aac
aiff

...



Knowledge Representation

Different Programming Tools



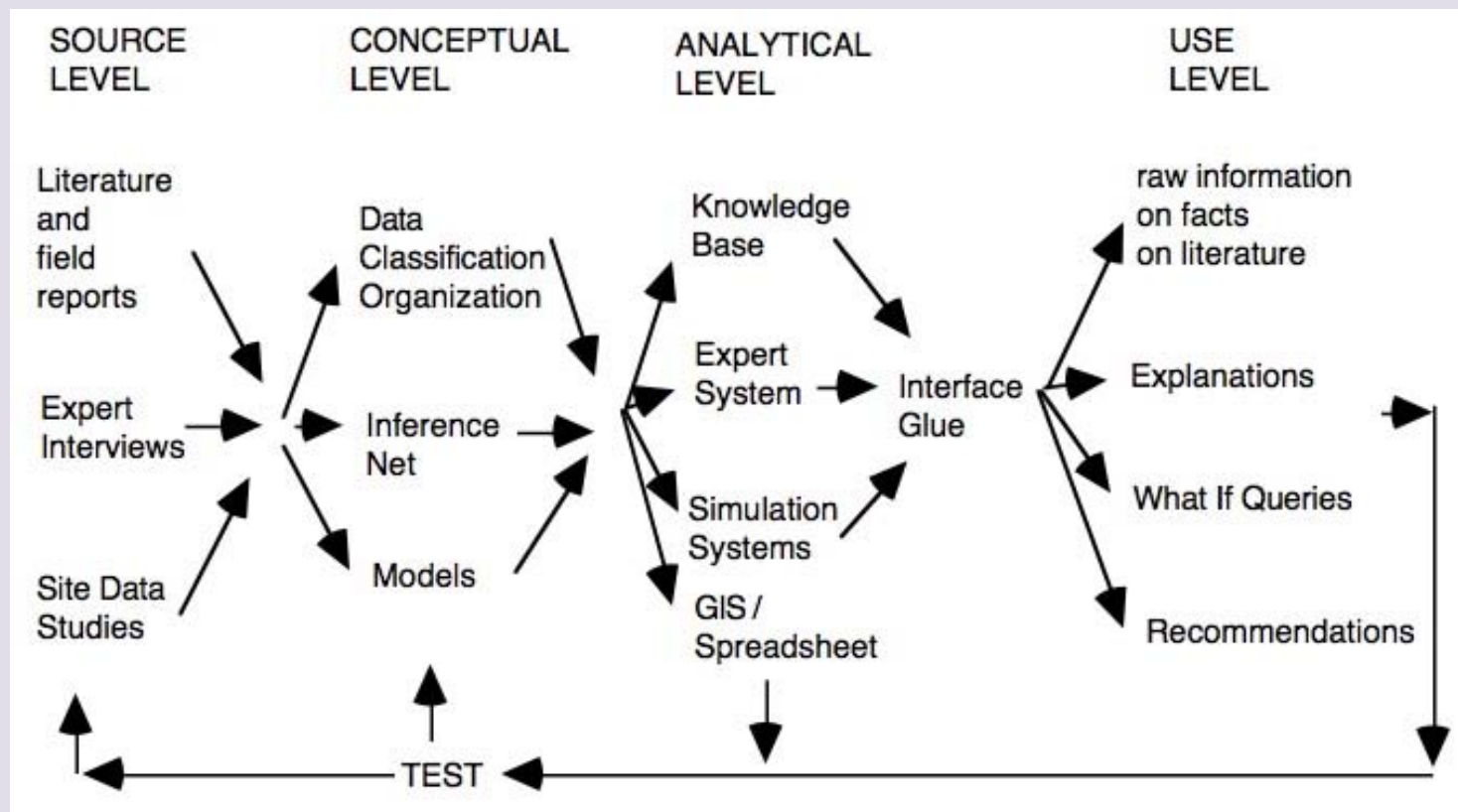


Knowledge Transfer

Diferent System Levels

(Ferraz de Abreu, P. 2002).

"New Information Technologies in Public Participation: A Challenge to Old Decision-making Institutional Frameworks"





Internet & Web

Netiquette

Internet and Web - the Commons

BCBK

be courteous, be kind

DNE

do no evil

BYOC

bring your own contribution

- no SPAM
- good citizenship
- freedom & rights
- privacy; PRIVACY
- transparency
- accessibility (special needs)
- intellectual property
- preserve heritage
- no SPAM

Policy Issues:

- Cookies
- Advertising
- Pop ups
- Redirects
- Stealth gathering
- Open standards
- Opt in vs. Opt out



Participatory Science

CITIDEP PROGRAMS

Citizenship & ICT

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www.citidep.pt • www.citidep.net



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



Laboratórios de Tecnologia para as Ciências Sociais

2007-2012

ISCSP-UTL

www.labtec-cs.net



- TIC e Inclusão,
Literacia, Cooperação

- Cidades Inteligentes,
Coesão & Sistemas
Participativos

- Governança Internet,
Dados Abertos,
Segurança &
Privacidade



**Laboratórios
de Tecnologia
e Sociedade**

2013-2014

FC-UL

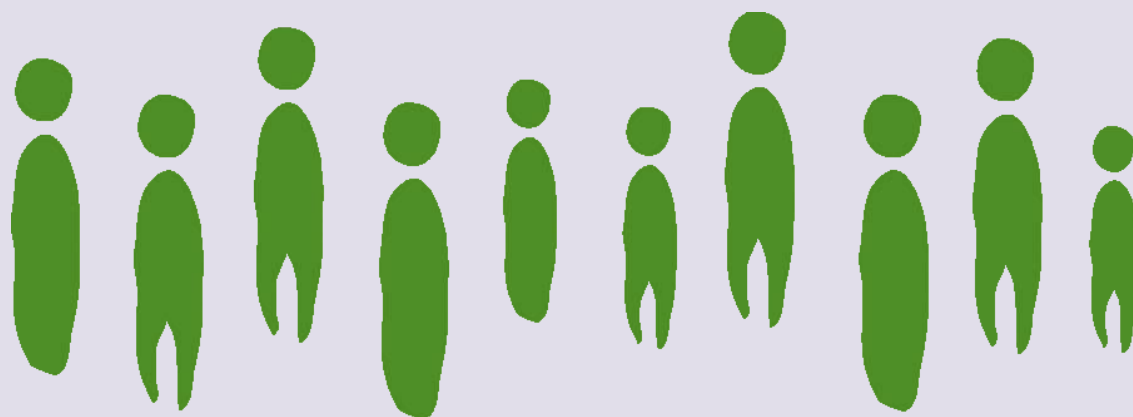
www.labtec-ts.net



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Laboratórios de Tecnologia e Sociedade

2015-2018

UA

www.labtec-ts.net

(ainda em fase de proposta na UA)



www.e-planning.org

www.labtec-ts.net

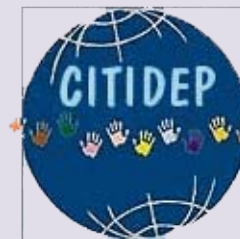
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