e-Planning Core

New ICT impact on Public Policies

2008-2022

Pedro Ferraz de Abreu

UA-UL-UNL

Joint PhD Program on e-Planning

2008-22 © Pedro Ferraz de Abreu

New ICT impact on Public Policies

If New ICT:

A) Represent a qualitative jump

B) Impact the geopolitics of development

C) Change how economy and planning work

D) Challenge the institutional & regulatory framework

2008-22 © Pedro Ferraz de Abreu

New ICT impact on Public Policies

Then we need:

A) New policies that "understand" the new ICT

B) New ICT (and 'ICT-aware') development strategies

C) New economic and planning models, towards inclusion

D) New institutional & regulatory frameworks

2008-22 © Pedro Ferraz de Abreu

New ICT impact on Public Policies

Meaning,

A New Strategic Thinking,

- incorporating ICT promises and
- aware of ICT challenges and impacts

2008-22 © Pedro Ferraz de Abreu

Revisão de matéria

A) ICT represent a qualitative jump

… the
"enabling factor"

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

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

2008-22 © Pedro Ferraz de Abreu

B) ICT impact the geopolitics of development

Technology is created in response to market pressures—not the needs of poor people, who have little purchasing power

HDR 2001

2008-22 © Pedro Ferraz de Abreu

B) ICT impact the geopolitics of development

Is it only "market pressure"?

Or market policies?

And what market is this,

In the Era of the new ICT?

2008-22 © Pedro Ferraz de Abreu

C) ICT change the rules for economy & planning

Microsoft Windows : 90% of world OS market

Intel idem, on hardware, etc.

- Free market?
- Competition?
- Free Choice?

Ford-T choices…

- **Why?**

2008-22 © Pedro Ferraz de Abreu

C) ICT change the rules for economy & planning

- What is a free market economy? (self-regulated)

  (Introduction)
- - the law of offer and demand
- - the law of free competition
- - the role of innovation
- - the role of patents in innovation

... and the 'market faillures'

2008-22 © Pedro Ferraz de Abreu

C) ICT change the rules for economy & planning

So you want "free market"?
New ICT may call your bluff…

The assumptions of self-regulation (liberalism):

- Information is free, complete & instantaneous
- Zero transaction costs
- Zero externalities
- Zero social costs
- Zero market faillures

2008-22 © Pedro Ferraz de Abreu

C) ICT change the rules for economy & planning

So you want "free market"?
New ICT may call your bluff…

The assumptions of self-regulation (liberalism):	*NEW ICT Potential:*
•Information is free, complete & instantaneous	*Closer*
•Zero transaction costs	*Closer*
•Zero externalities	*Closer*
•Zero social costs	*Better*
•Zero market faillures	*Better*

2008-22 © Pedro Ferraz de Abreu

C) ICT change the rules for economy & planning

It is ironic that new ICT offer today the means to get much closer than ever before to achieve such liberal assumptions.

Why do "free-market" arauts resist then to develop, deploy and use ICT for such purpose?

It begs the question: those that preach for a "free market", do they really want it, or fear it?

Oh vozes que do alto império
Proclamais um mundo novo
Calai-vos que pode o povo
Querer um mundo novo a sério *(António Aleixo)*

C) ICT change the rules for economy & planning

- New Competition Modes (ex. Changing brand vs. software learning curve + compatibity; captive market; cost of market entry)

- New (re)Production Modes (ex. fabric & stock of "hardware" products vs. software cloning)

- New Business Models (ex. Microsoft vs. OpenSource; temporal contract lock, ISPs , e-escolas, adv. profiling, the cost of "free")

- New Organization Modes (ex. Time-shared mainframe vs. PC; “chain of tenure” -> paper vs. email; network vs hierarchy)

2008-22 © Pedro Ferraz de Abreu

A new dimension of territorial planning

- The weak link prevails (vs. theory of excellence-drive)
- Control of the infrastructure (ISP) and also of contents (& services): “Net Neutrality” issue
- Assimetric “broad” band (consumer vs citizen)

A new dimension of territorial planning

- The weak link prevails (vs. theory of excellence-drive)
- Control of the infrastructure (ISP) and also of contents (& services): “Net Neutrality” issue
- Assimetric “broad” band (consumer vs citizen)

The *hatched eggs* paradigm

C) ICT change the rules for economy & planning

A new dimension of territorial planning

- Broad band:

–"It's the Upload, Stupid"

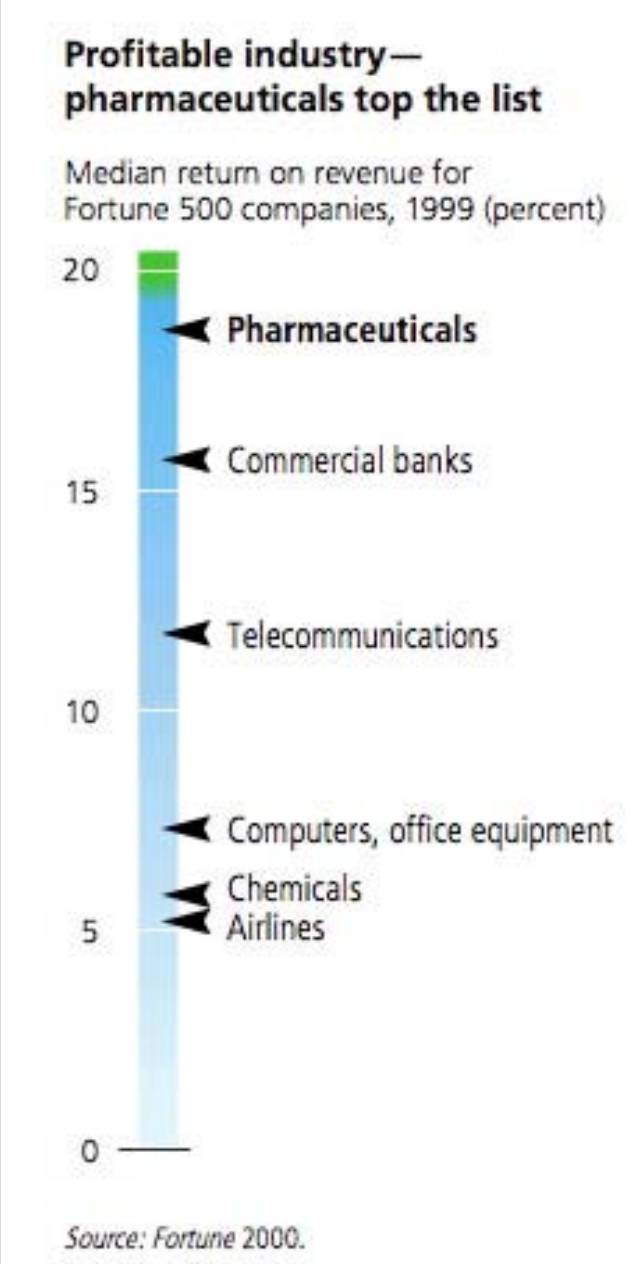
D) ICT challenge institutional & regulatory frameworks

Policy, not charity, will determine whether new technologies become a tool for human development everywhere

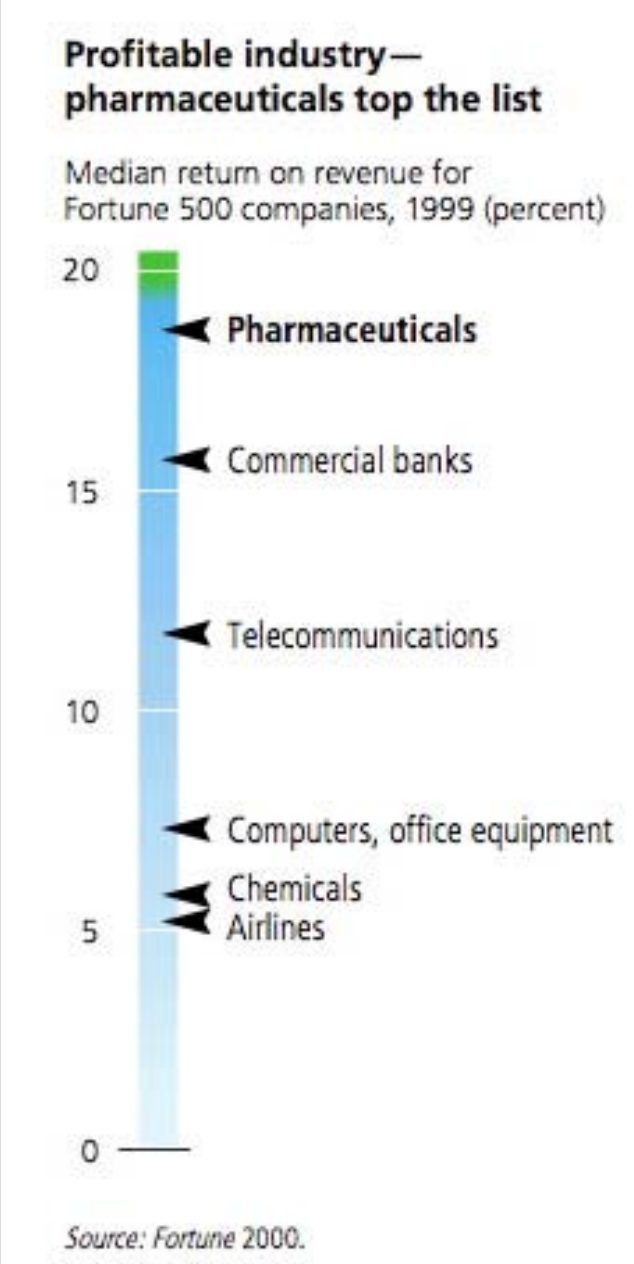
HDR 2001

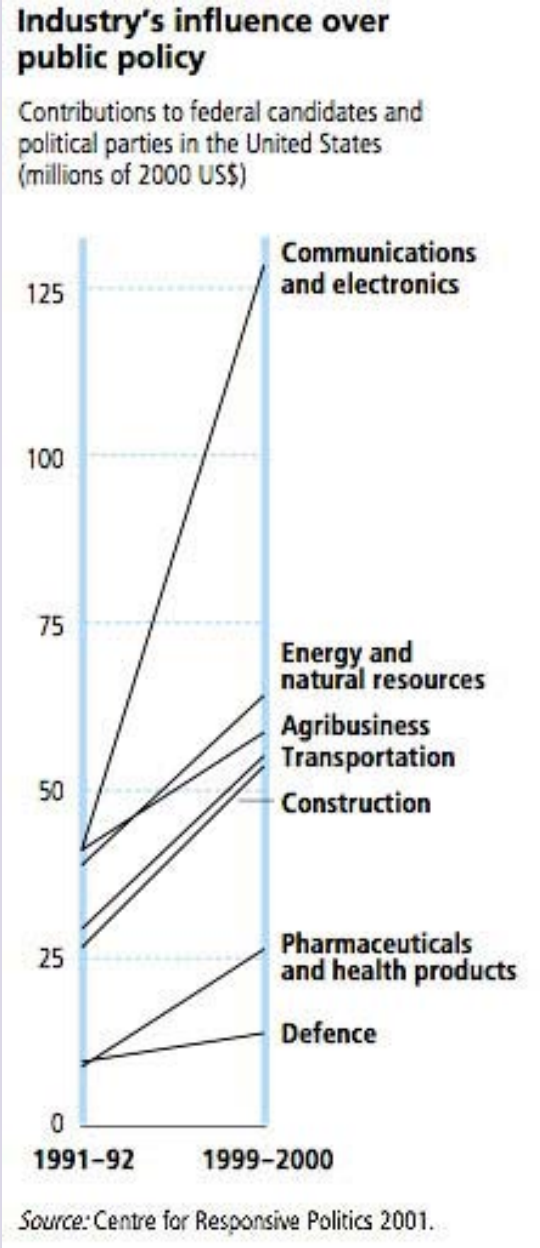
But What (and Who) Determines Policy?

D) ICT challenge institutional & regulatory frameworks



D) ICT challenge institutional & regulatory frameworks





Why?

D) ICT challenge institutional & regulatory frameworks

New ICT bring therefore with them:

• New rules of the game / new dynamics in the information and knowledge economy / the risk of new assymetries.

• Erosion of State sovereignity (dificulty in controling new borders / new dimensions of territory).

• A new world context (**Globalization**)

• New challenges to the balance between "***development & security vs. freedom e democracy***".

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

- Politics and Planning
- Core of Politics
- Politics vs. Policy

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

- Politics and Planning
  - e-Planning sinoptical approach (chapter 1)
- Core of Politics
  - Power (and power sharing mechanisms)
  - Articulate individual & common interests
- Politics vs. Policy
  - Society frameworks vs. implementation tools

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

- What is a Policy?
- What is a Public Policy?
- How do we enact public policies?

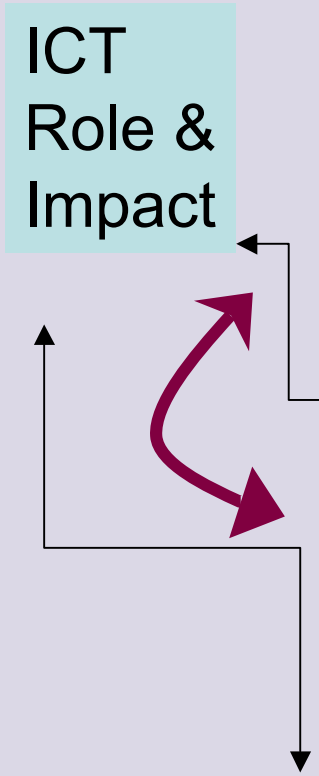
2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

- What is a Policy?
  - Tool towards a goal
  - Set of procedures, guidelines
- What is a Public Policy?
  - Society framework as reference
  - Public resource management
- How do we enact public policies?
  - Formulation (*Needs*, *Inventory*, *Priorities*, *Strategy*)
  - Institutions (*State*, *Government*, *Public Administration*)
  - **Regulation** (*Laws*, *Regulations*, *Petitions*)
  - Enforcement (*Monitoring*, *Compliance*, *Penalty*)
  - Evaluation (*Indicators*, *Criteria of success*, *Results*)

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy



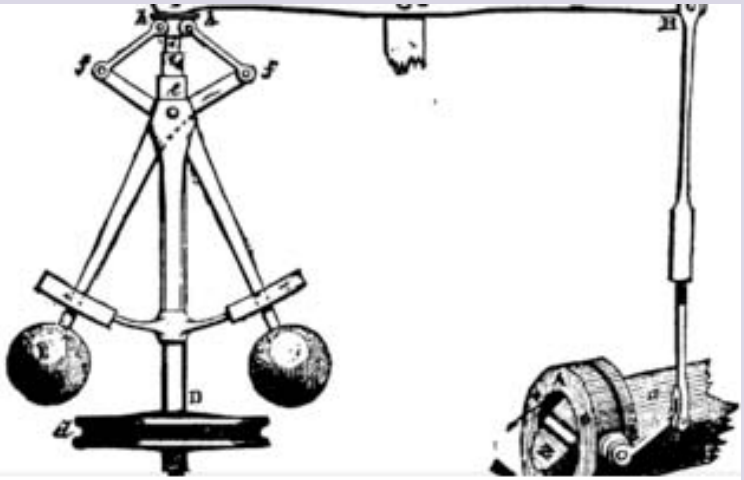
- What is a Policy?
  - Tool towards a goal
  - Set of procedures, guidelines
- What is a Public Policy?
  - Society framework as reference
  - Public resource management
- How do we enact public policies?
  - Formulation (*Needs*, *Inventory*, *Priorities*, *Strategy*)
  - Institutions (*State*, *Government*, *Public Administration*)
  - **Regulation** (*Laws*, *Regulations*, *Petitions*)
  - Enforcement (*Monitoring*, *Compliance*, *Penalty*)
  - Evaluation (*Indicators*, *Criteria of success*, *Results*)

2008-22 © Pedro Ferraz de Abreu

Watt Steam Engine Regulation

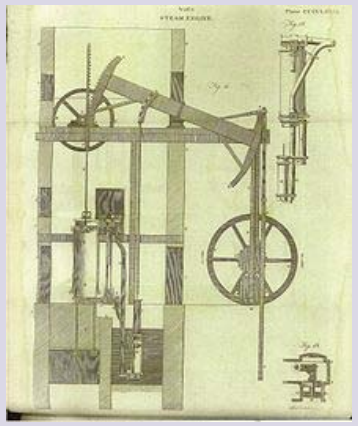
Regulation Theory

From
Engineering
(mechanics)



A **centrifugal governor** is a specific type of governor with a feedback system that controls the speed of an engine by regulating the amount of fuel admitted, so as to maintain a near-constant speed. It uses the principle of

James Watt

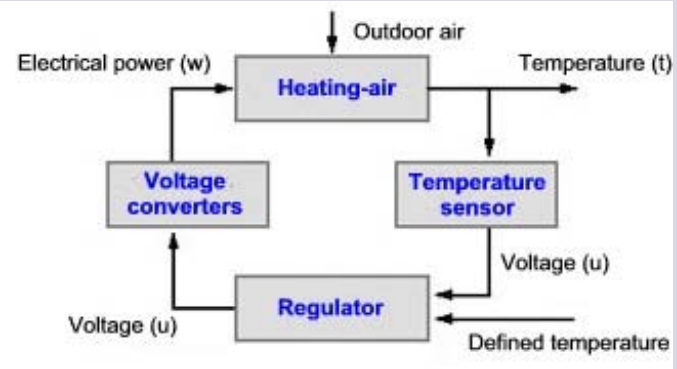


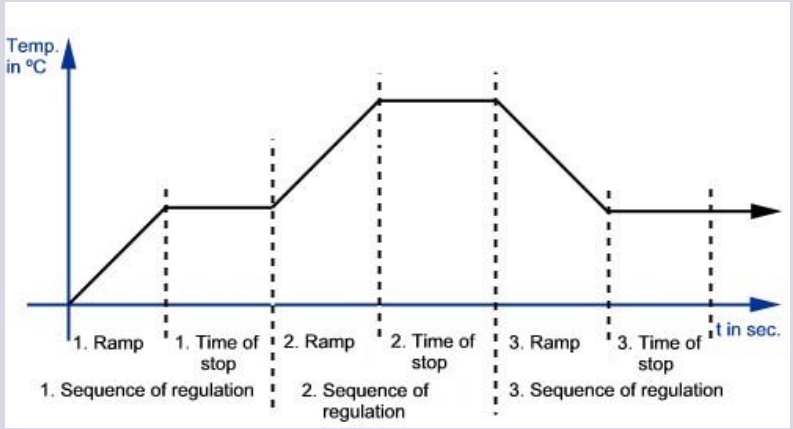
2008-22 © Pedro Ferraz de Abreu

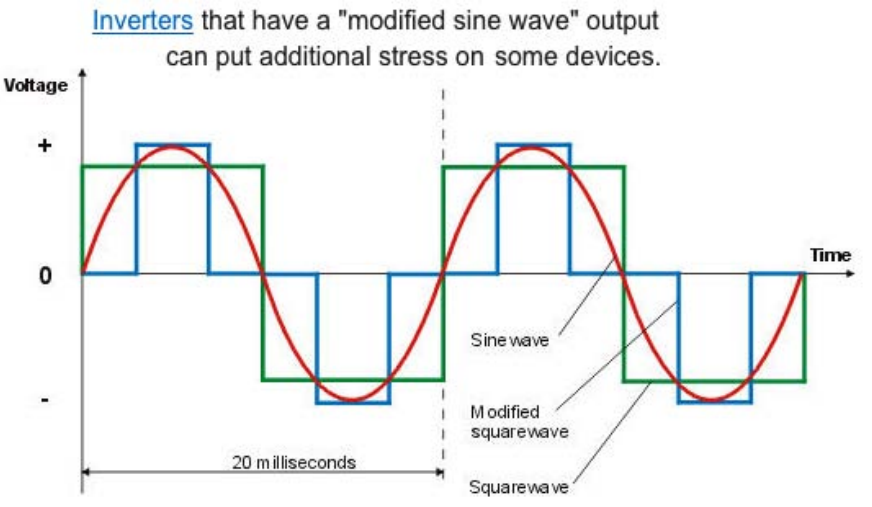
Electronic Regulation

Regulation Theory

From **Engineering** (electronics)







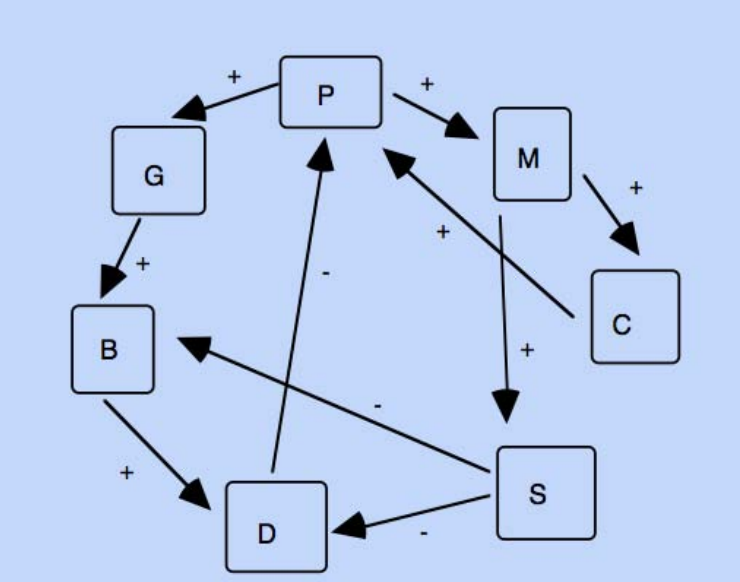
Regulated vs Non-Regulated Systems

Regulation Theory

From
Graph Science
(urban models)

Graph Dinamic Model:

Adapted from Myuryana



Graph representation of a inference net of causal relationships - graph tool set.

(B) - bacteria present in the area

(G) - accumulation of garbage in the area

(D) - number of diseases

(P) - people in the city

(C) - migration into the city

(M) - modernization of the city

(S) - sanitary improvements

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

From
Graph Science
(urban models)

Regulation Theory

From
Engineering

From
Economy

City Graph Model

"Exploding" Cycles (++ / --)

Self-regulated Cycles (+ / -)

What is a well-regulated system?

(Watt steam engine)

Market Model

Market faillures

Regulatory framework

What is regulation?

(understanding policy role)

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

From
Graph Science
(urban models)

Regulation Theory

From
Engineering

From
Economy

External Regulated vs.
"Exploding" systems
Self-regulated systems

What is a well-regulated system?

e-Planning Theory of Regulation:

There is no such thing as a
"Too-much Regulated System"

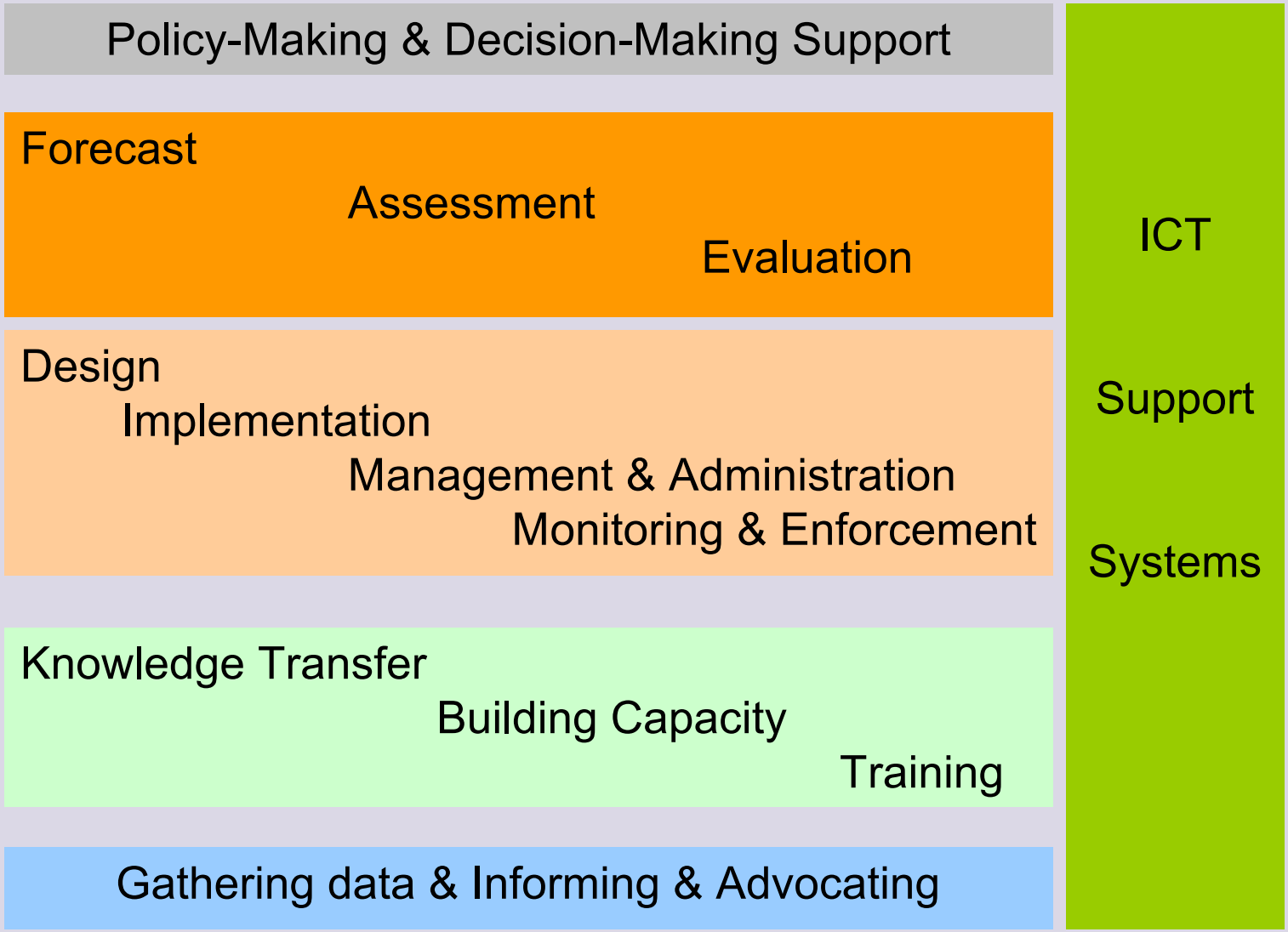
Either we have:

- Self-Regulated Systems (stable)
- Non-Regulated Systems (unstable)
- Well Regulated Systems (stable)
- Poorly Regulated Systems (unstable)

2008-22 © Pedro Ferraz de Abreu

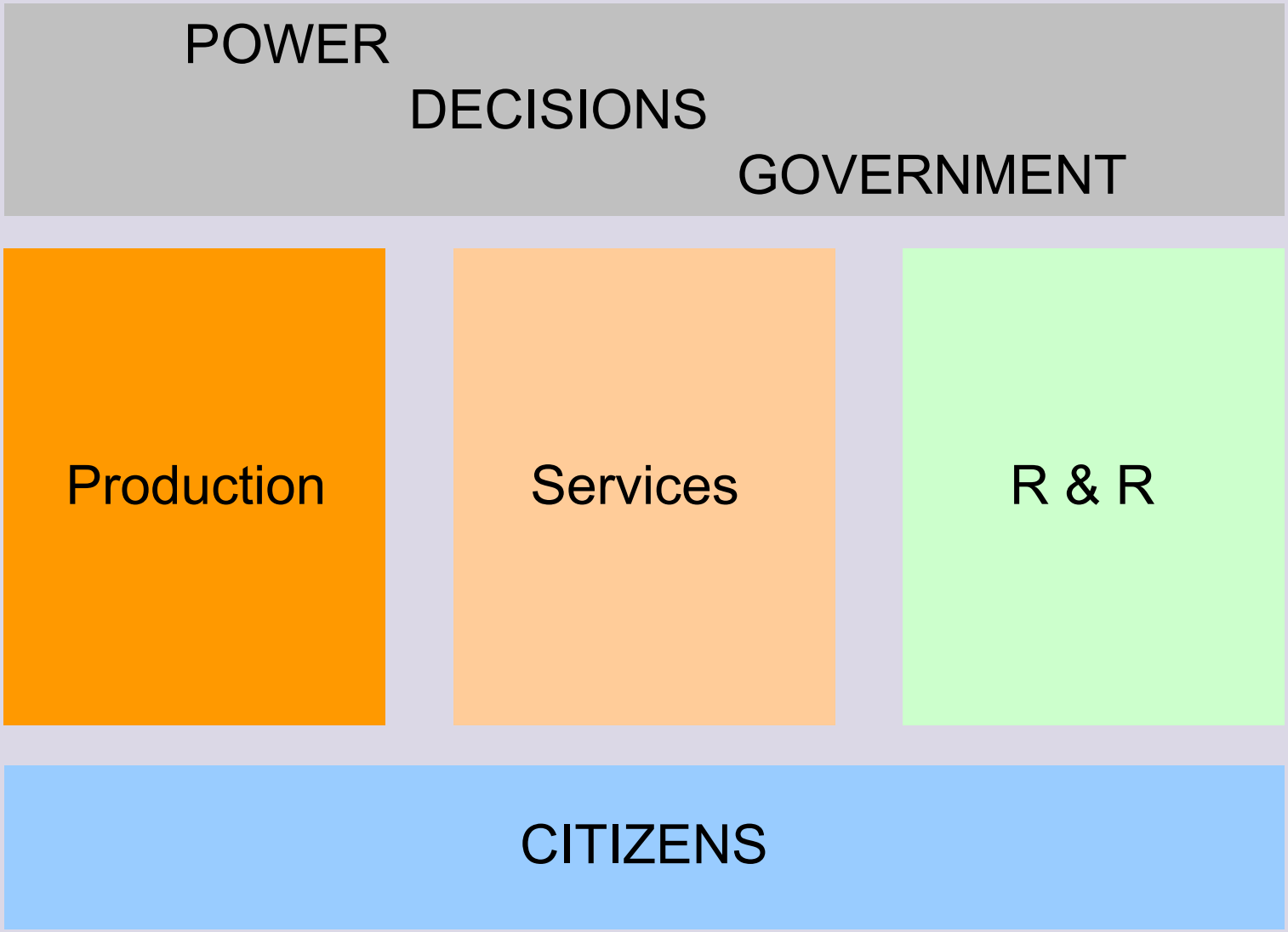
New Strategic Thinking for ICT & Public Policy

PFA model of "Traditional Planning Roles & ICT"



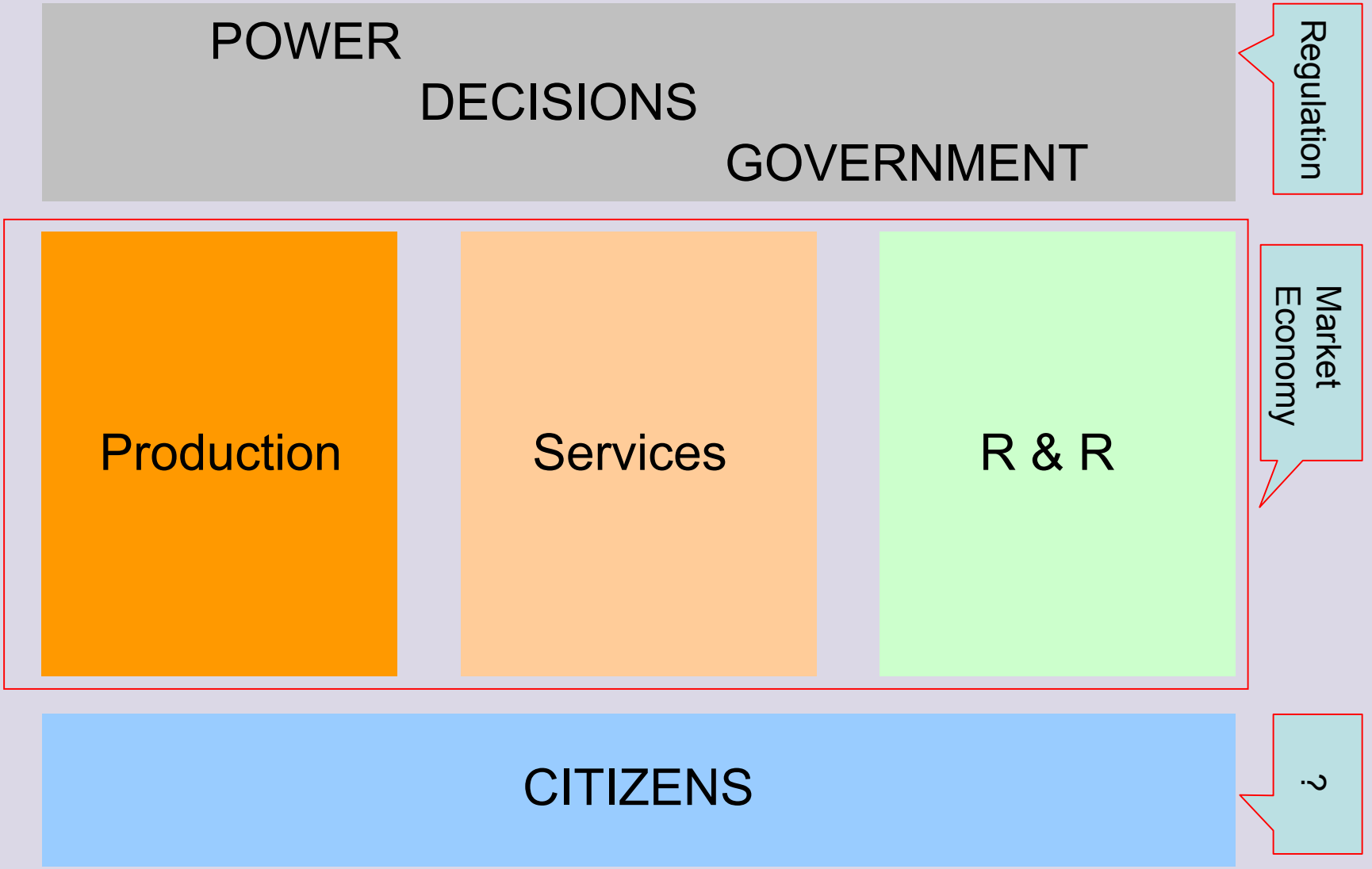
2008-22 © Pedro Ferraz de Abreu

PFA "Functional Canonic Model of Society"



2008-22 © Pedro Ferraz de Abreu

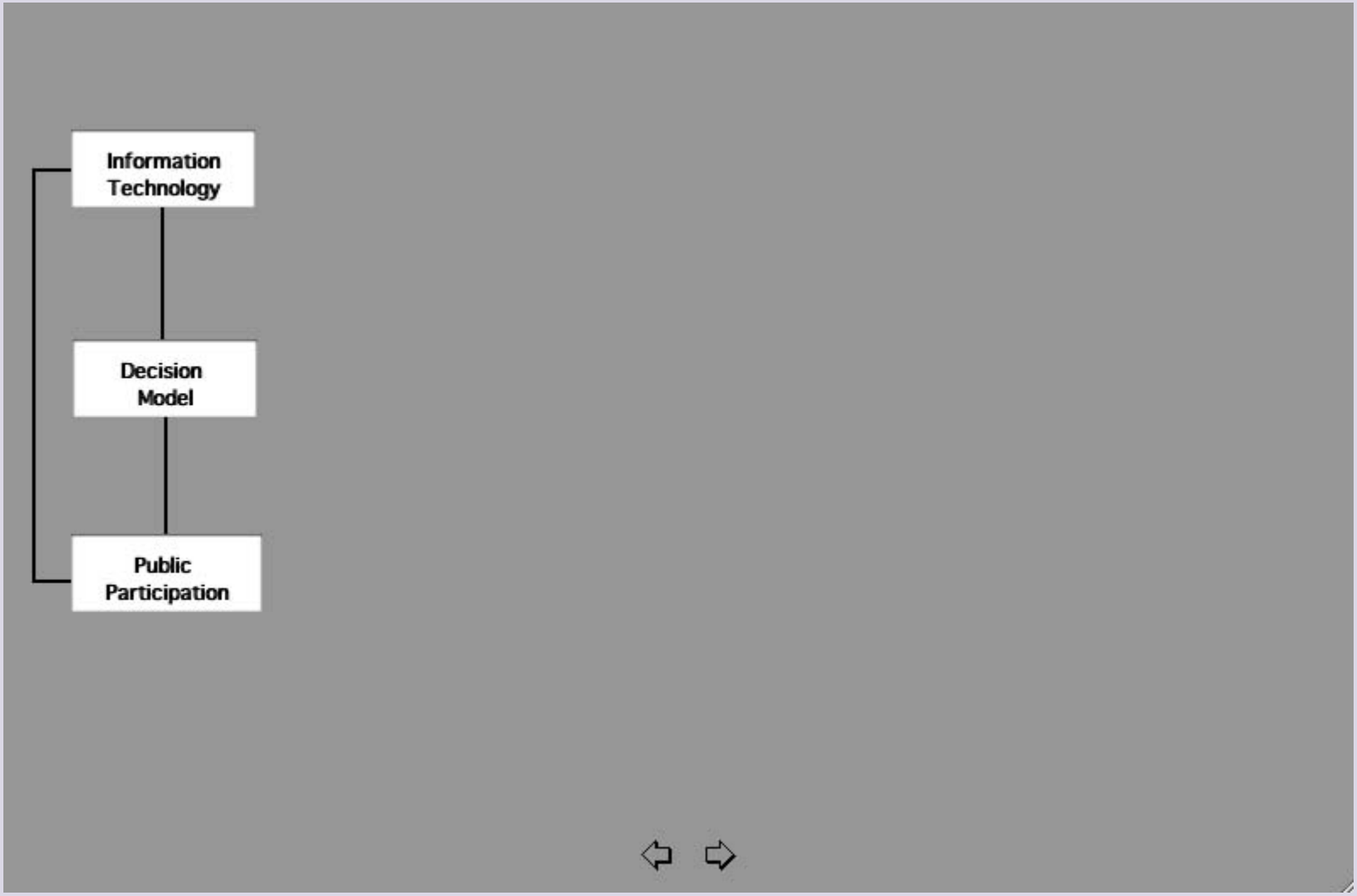
PFA "Functional Canonic Model of Society"



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

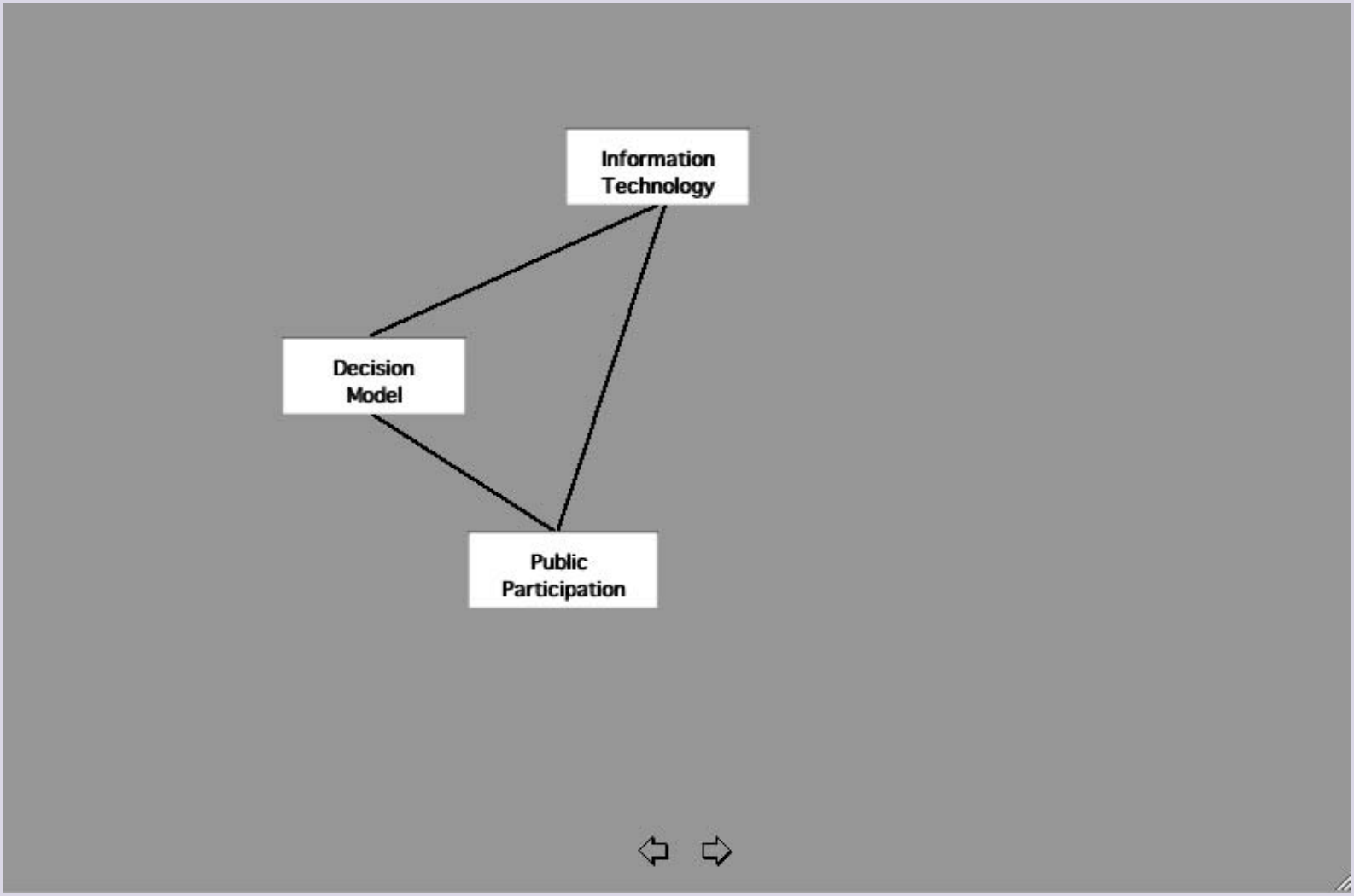
initial hypothesis



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

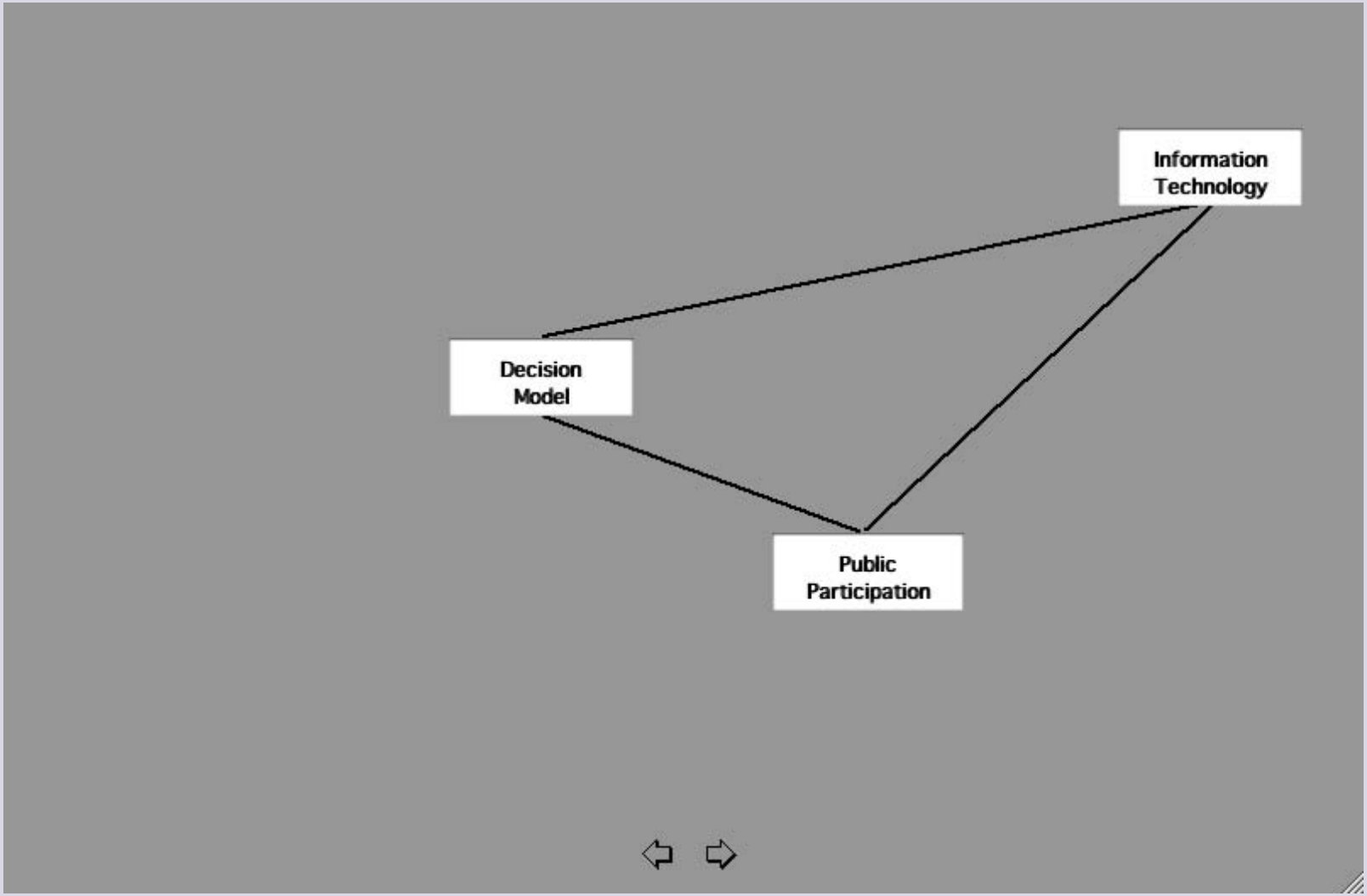
initial hypothesis



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

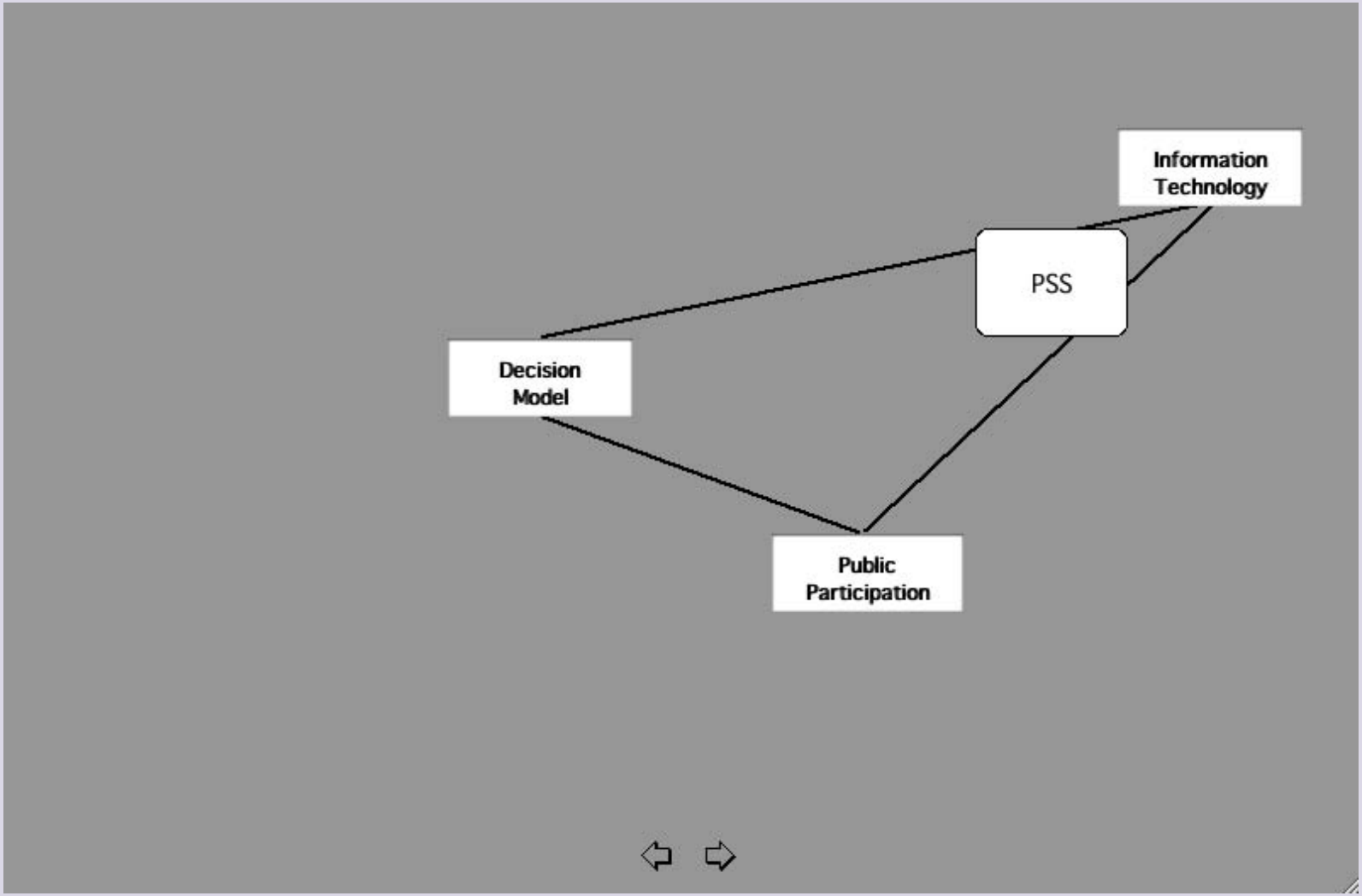
initial hypothesis



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

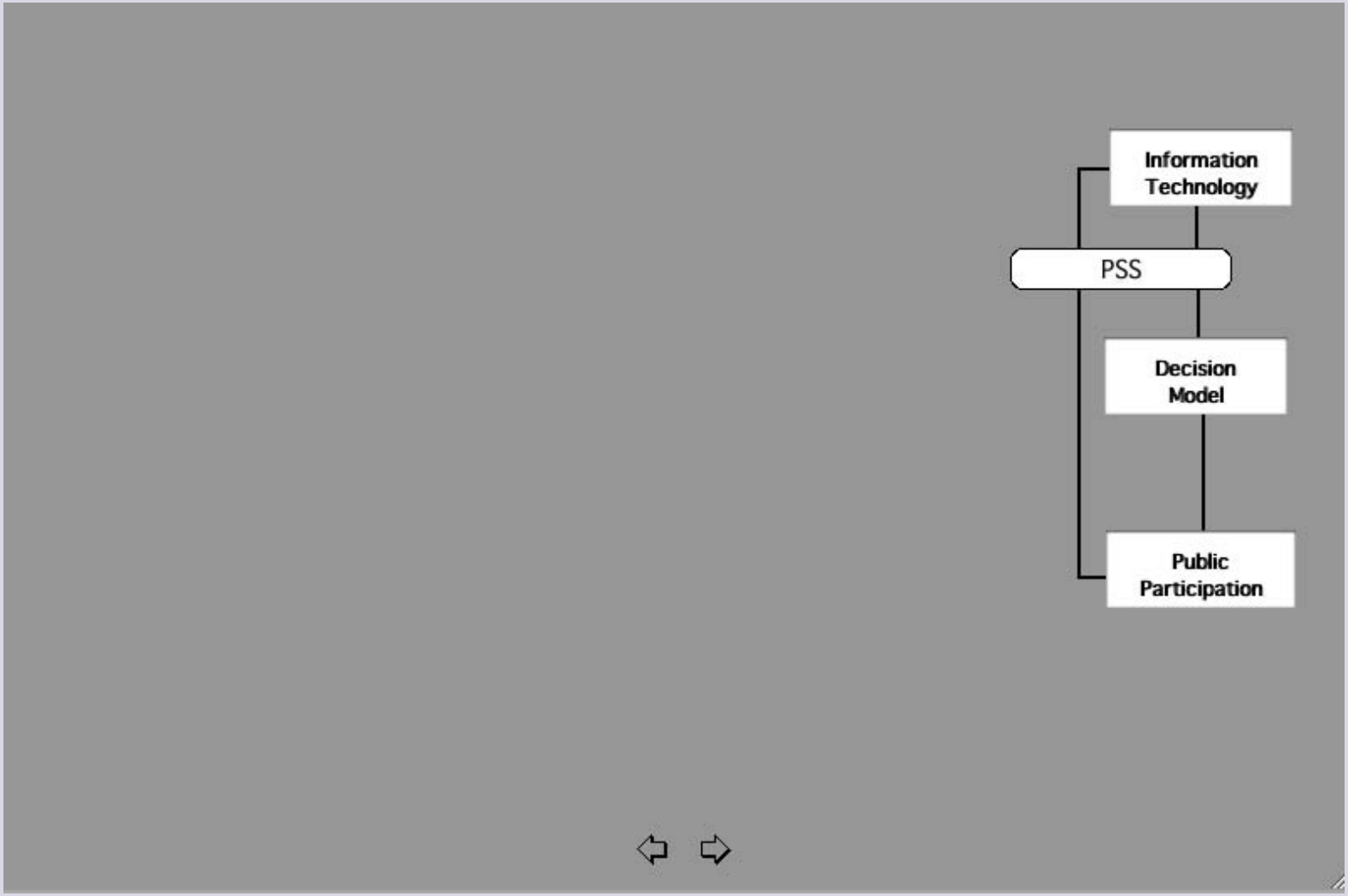
initial hypothesis



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

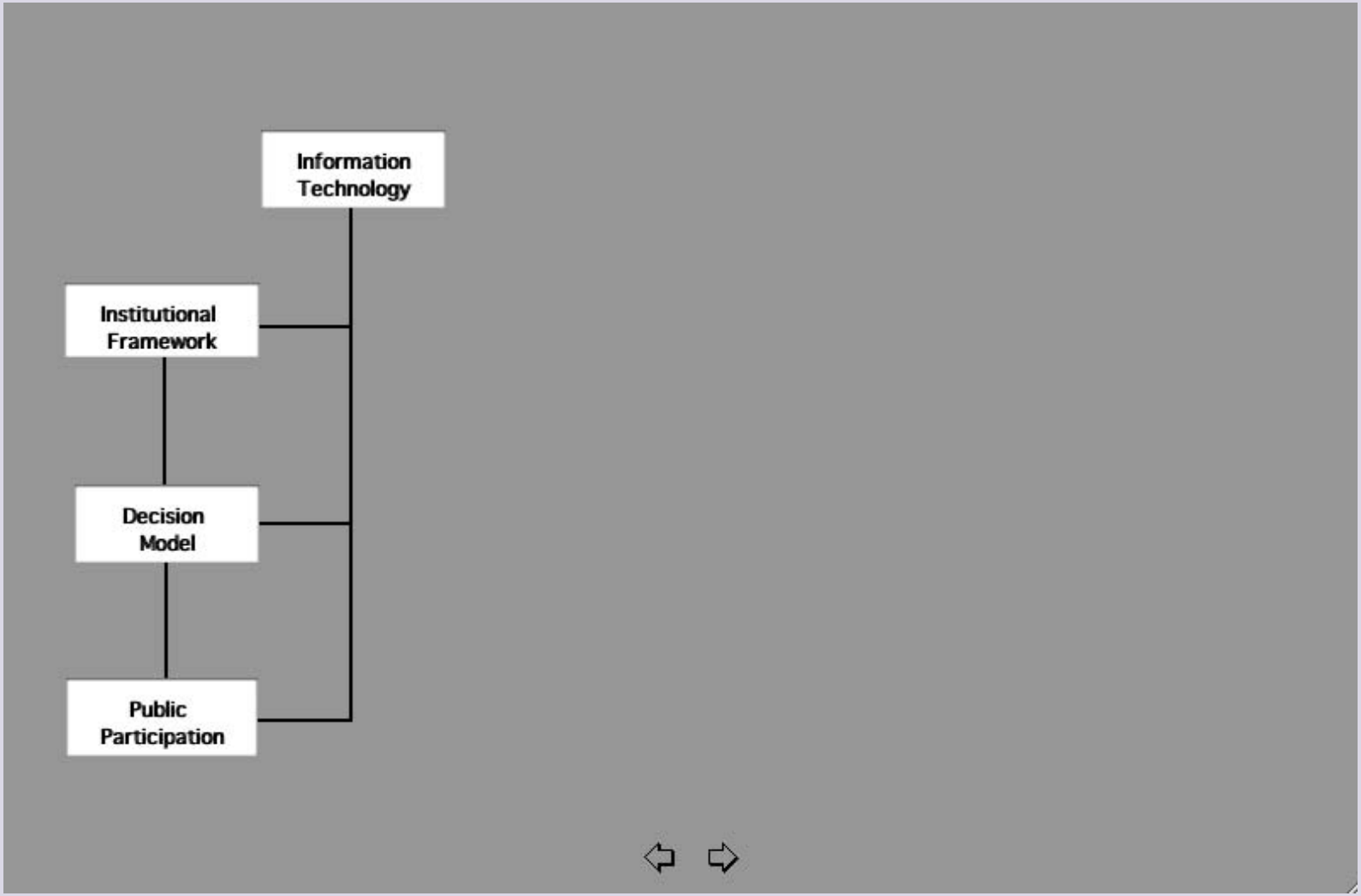
initial hypothesis



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

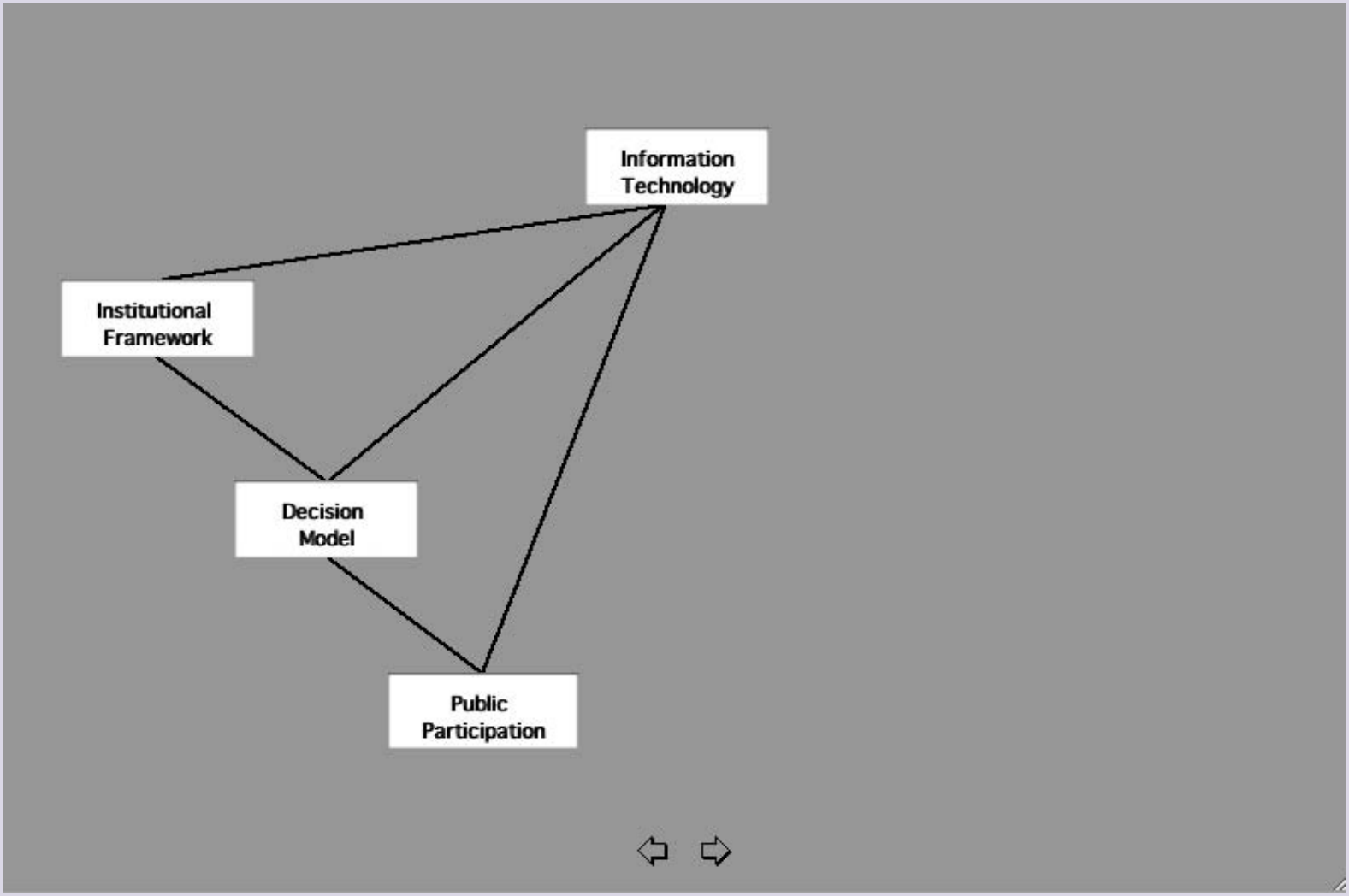
new hypothesis



2008-22 © Pedro Ferraz de Abreu

PFA Thesis Defense

new hypothesis

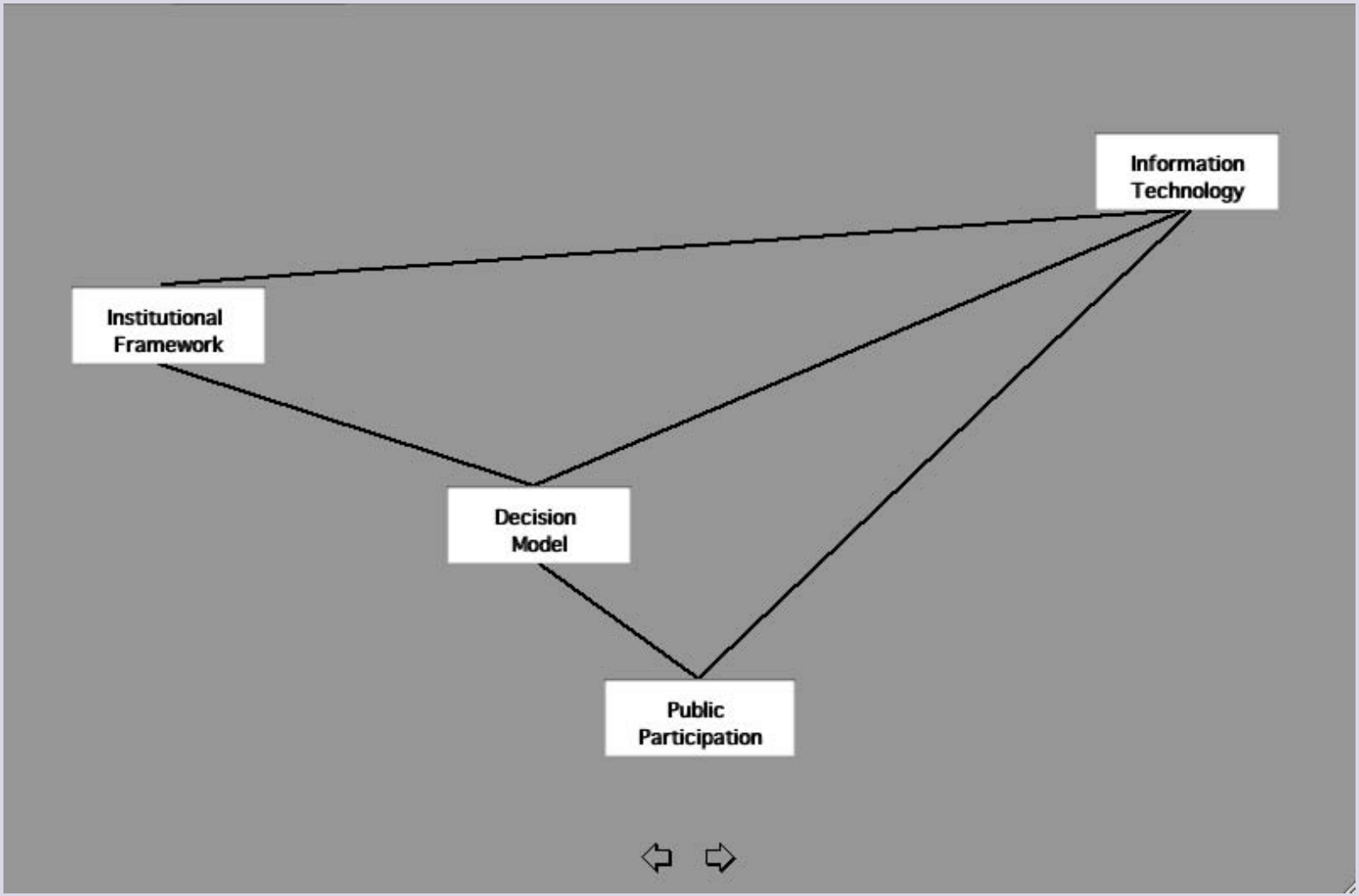


2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

PFA Thesis Defense

new hypothesis

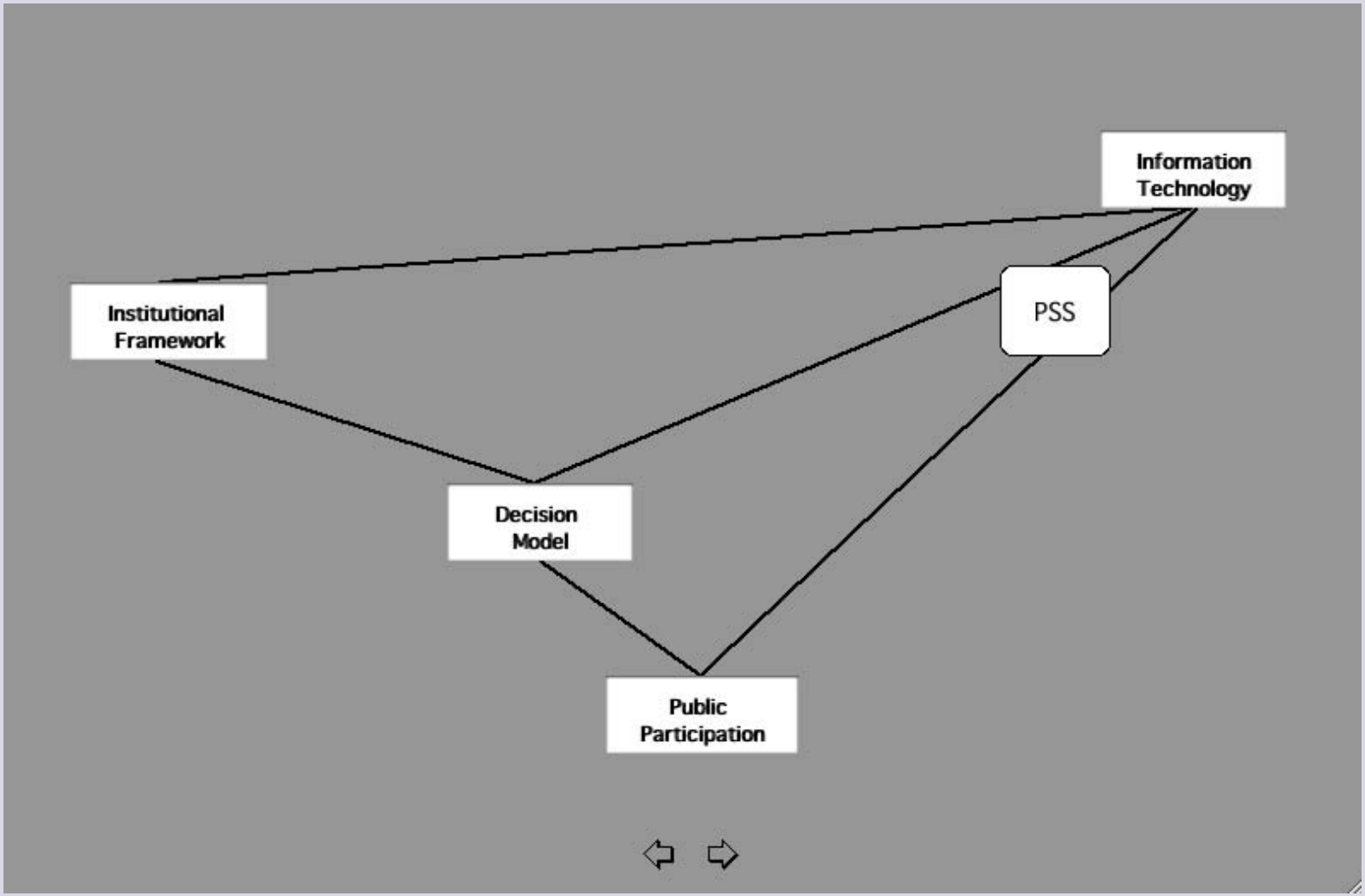


2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

PFA Thesis Defense

new hypothesis

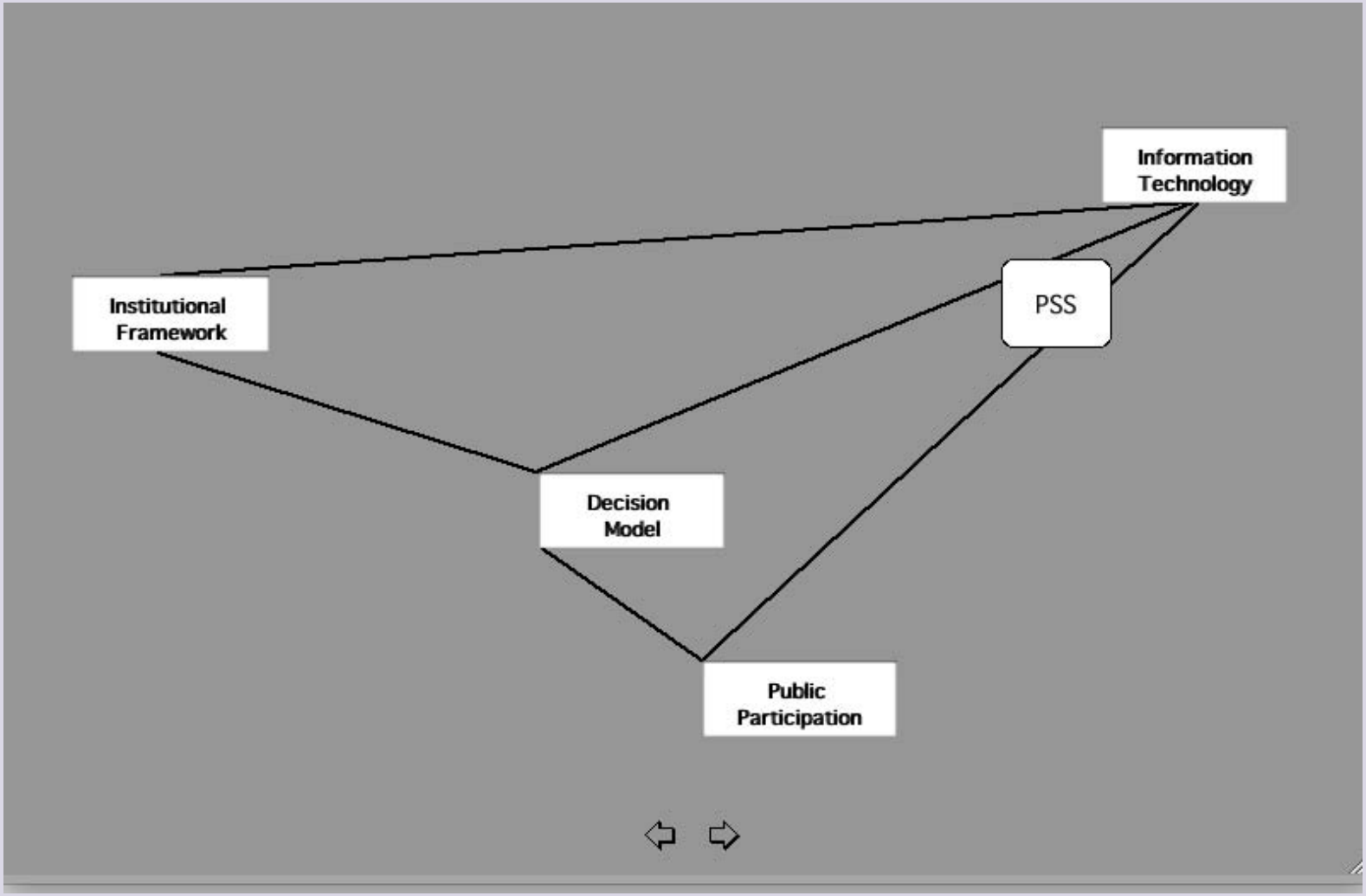


2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

PFA Thesis Defense

new hypothesis

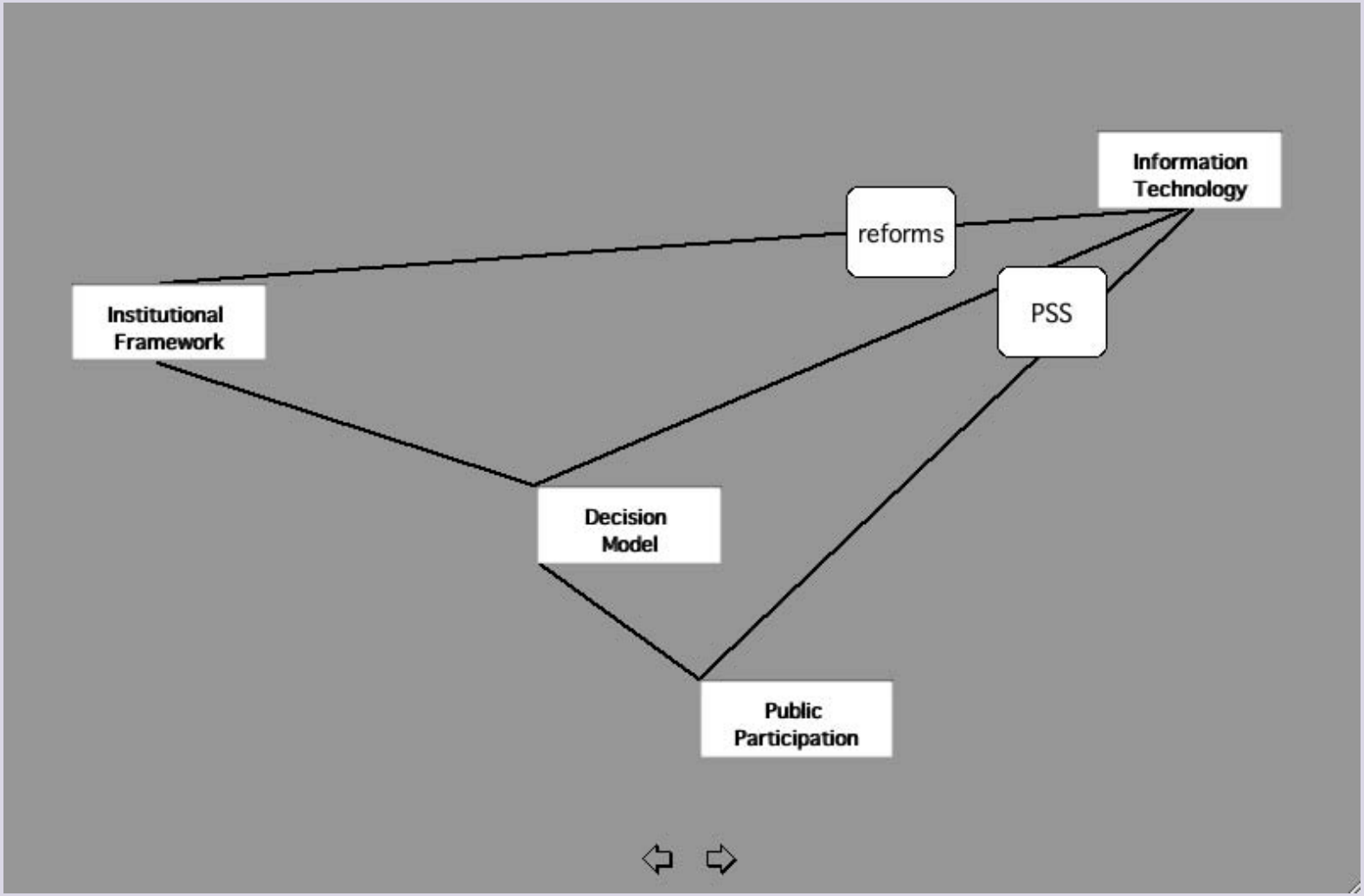


2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

PFA Thesis Defense

new hypothesis

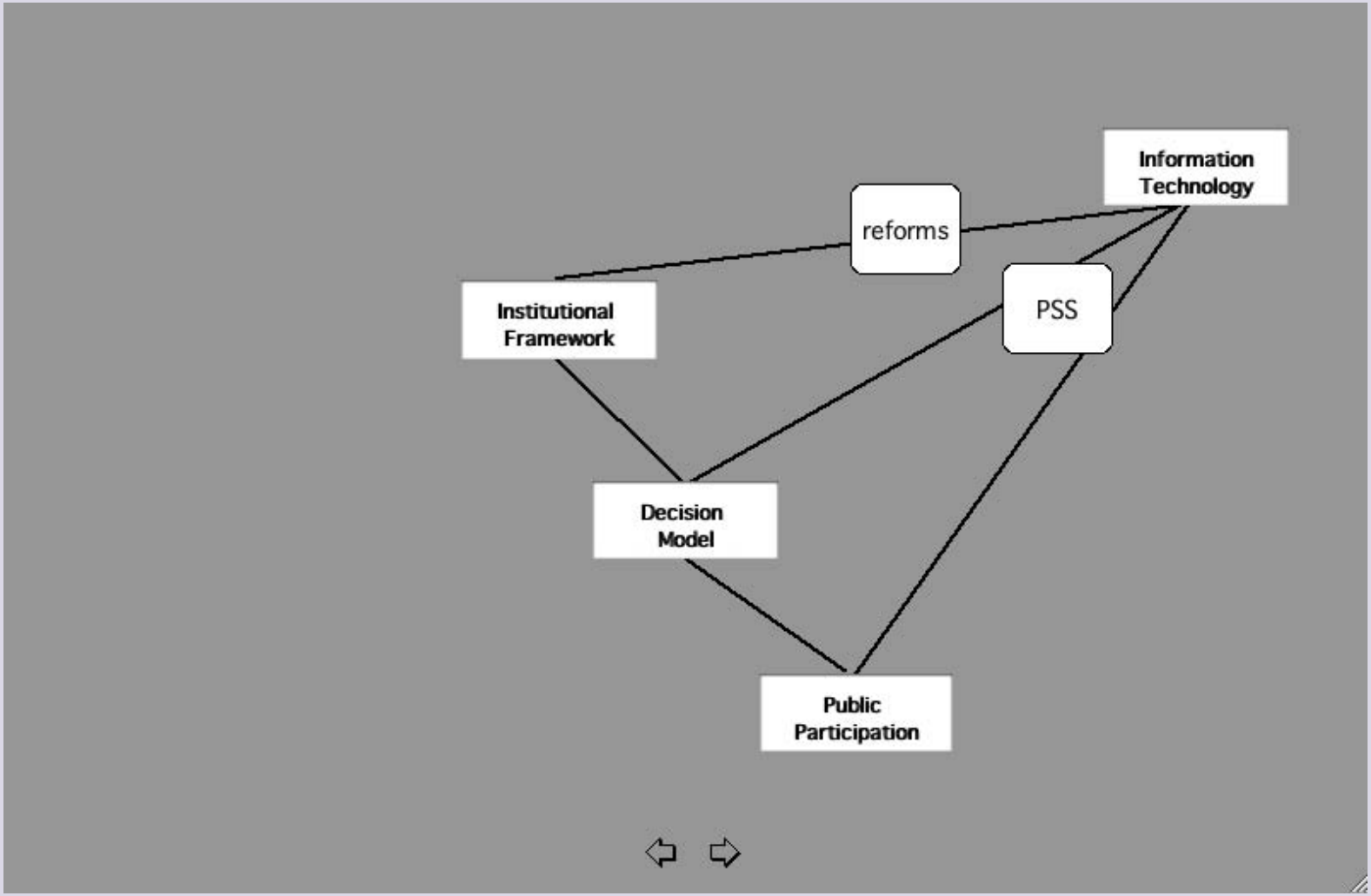


2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

PFA Thesis Defense

new hypothesis

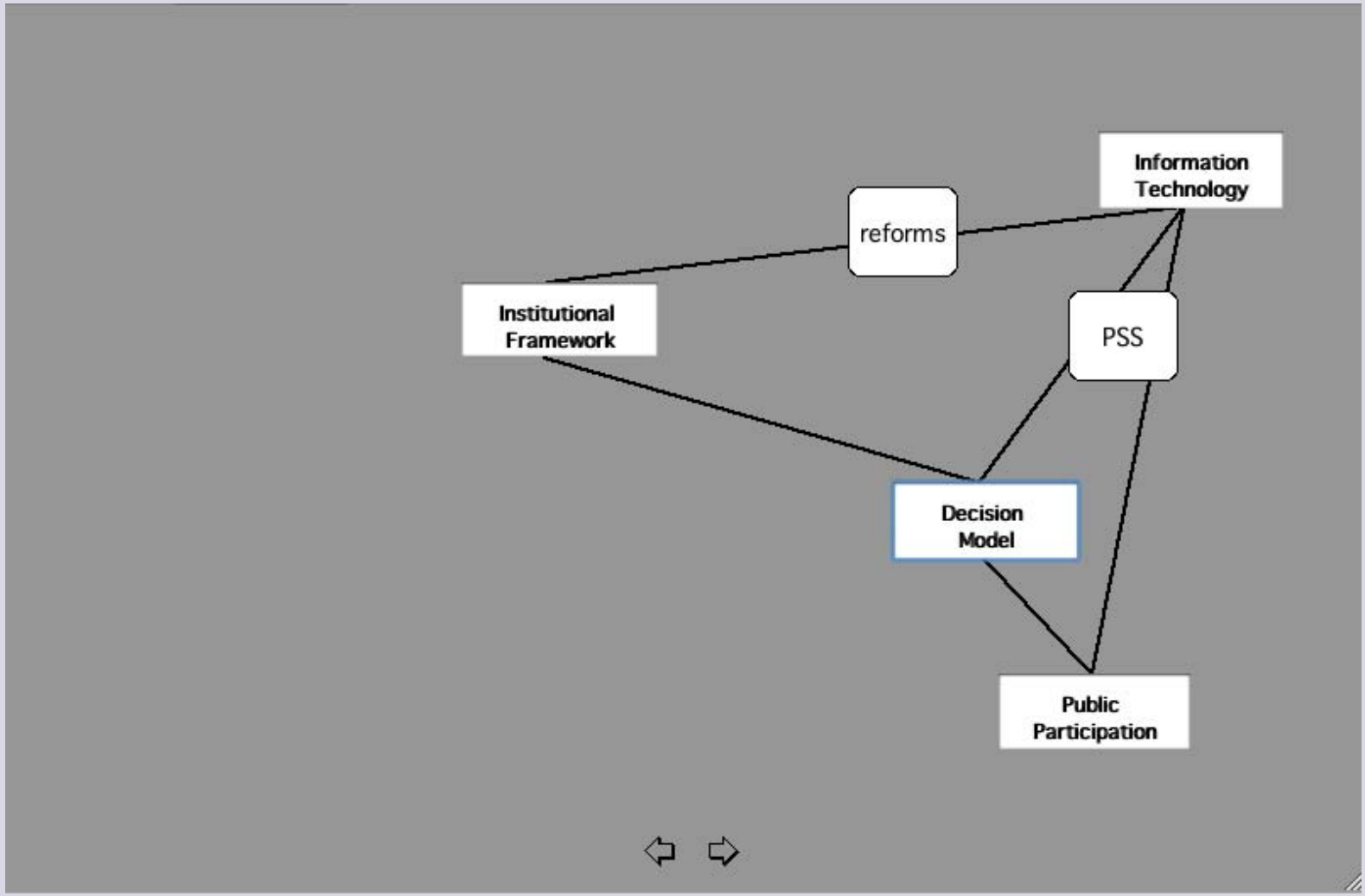


2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

PFA Thesis Defense

new hypothesis



2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

1. New Policies & Regulations that "Understand" new ICT
2. Institucional Reforms (Local & Supranacional) that promote citizen inclusion and regional cohesion (LDC's)
3. New Strategies for ICT Development
4. ICT as a Tool for building "knowledge capacity"
5. ICT at the service of the Citizen
6. ICT and privacy & freedoms vs. security & efficiency
7. ICT at the core of the "Smart" trends
8. ICT impact on theory of power, property & added-value

LDC-Least Developed Countries

2008-22 © Pedro Ferraz de Abreu

1. New Policies & Regulations that "Understand" new ICT

The lack of Understanding at the service of monopoles:

(Examples)

- The "Standard Wars" (ex. windows vs open standards & protocols);
- **New business models (Microsoft vs. Open Source);**
- "Natural" & artificial Monopoles (ex. Controle do lacete local, 'Engorda' da Telecom com atraso das "flat rates");
- **Control of infrastructure (**ISP) and **Content (**including **services):** "***Net Neutrality***" **(**assimetric bandwidth, limiting competition, throtling**);**
- The New Patent War (are software "patents" acceptable?).

1. New Policies & Regulations that "Understand" new ICT

Susan Crawford

Susan Crawford is the (Visiting) Stanton Professor of the First Amendment at Harvard's Kennedy School, a Visiting Professor at Harvard Law School, a Professor at Cardozo Law School, and a contributor to Bloomberg View and Wired. She served as Special Assistant to the President for Science, Technology, and Innovation Policy during 2009 and co-led the FCC transition team between the Bush and Obama administrations. She is a member of Mayor Michael Bloomberg's Advisory Council on Technology and Innovation.

"Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age"

2008-22 © Pedro Ferraz de Abreu

2. Institucional Reforms (Local & Supranacional) that promote citizen inclusion and regional cohesion (LDC)

The lack of Understanding at the service of entrenched interests:

(Examples)

- Advertisement Inside Elementary Schools (logo youth branding);
- Cities that want to offer Internet Acess as Utility- how horrifying;
- Cambridge City-CableTV Agreements vs. Content Monopoly;
- Hierarchic vs. Network Model at Public Administration;
- UN & Internet Government - private vs. institucional.

LDC-Least Developed Countries

2008-22 © Pedro Ferraz de Abreu

3. New Strategies for New ICT Development

The lack of Understanding at the service of inequality:
(Examples)

- Assymetric BroadBand (consumer vs citizen)
- Closed Internet II, bandwith control
- Conversation Taping "built-in" in new phone chips
- Increasing Violation of Privacy, "spyware"
- The weakest link sets the quality
  (vs. theory of "excellence drives all")

2008-22 © Pedro Ferraz de Abreu

3. New Strategies for New ICT Development

ICT-Aware Public Policies

- *Litmus Test* is the same good old one:

- *Cui Bono ?*

2008-22 © Pedro Ferraz de Abreu

3. New Strategies for New ICT Development

ICT-Aware Public Policies

- *Litmus Test* is the same good old one:

- *Cui Bono ?*

  - Who benefits from ICT innovation?
  - Why? How? What role *policies* play?

e-Planning concept of *ICT added-value:*

- What is the mechanism of *ICT added-value* appropriation?

2008-22 © Pedro Ferraz de Abreu

4. ICT as a Tool to build “knowledge capacity”

5. ICT at the concrete service of the Citizen

The Open Challenge for e-Planning:

- New Concept of “Capacity” ("*e-Capacity*")

  Rational, Integrated vs. Distributed Systems
  Knowledge framework (capture, representation, distribution, etc)
  Knowledge infrastructures (hard and soft) and Networking
  Property rights, added-value appropriation (consumer vs. supplier)

- New "e-Planning" Institutions in the ICT-Era

  e-Government, e-Governance, e-Cities, e-ONGs, e-Citizens

(see chapter)

2008-22 © Pedro Ferraz de Abreu

6. ICT at the core of a key dilemma:

privacy & freedoms vs. security & efficiency

The Case of the "Citizen Card" with Single Identifier Number...

... and the purpose of deliberate inefficiencies built into the Constitution of the Republic.

- - Is efficiency neutral?

- Are ICT neutral?

(see chapter)

2008-22 © Pedro Ferraz de Abreu

7. ICT at the core of the "Smart" trends

Smart Cities

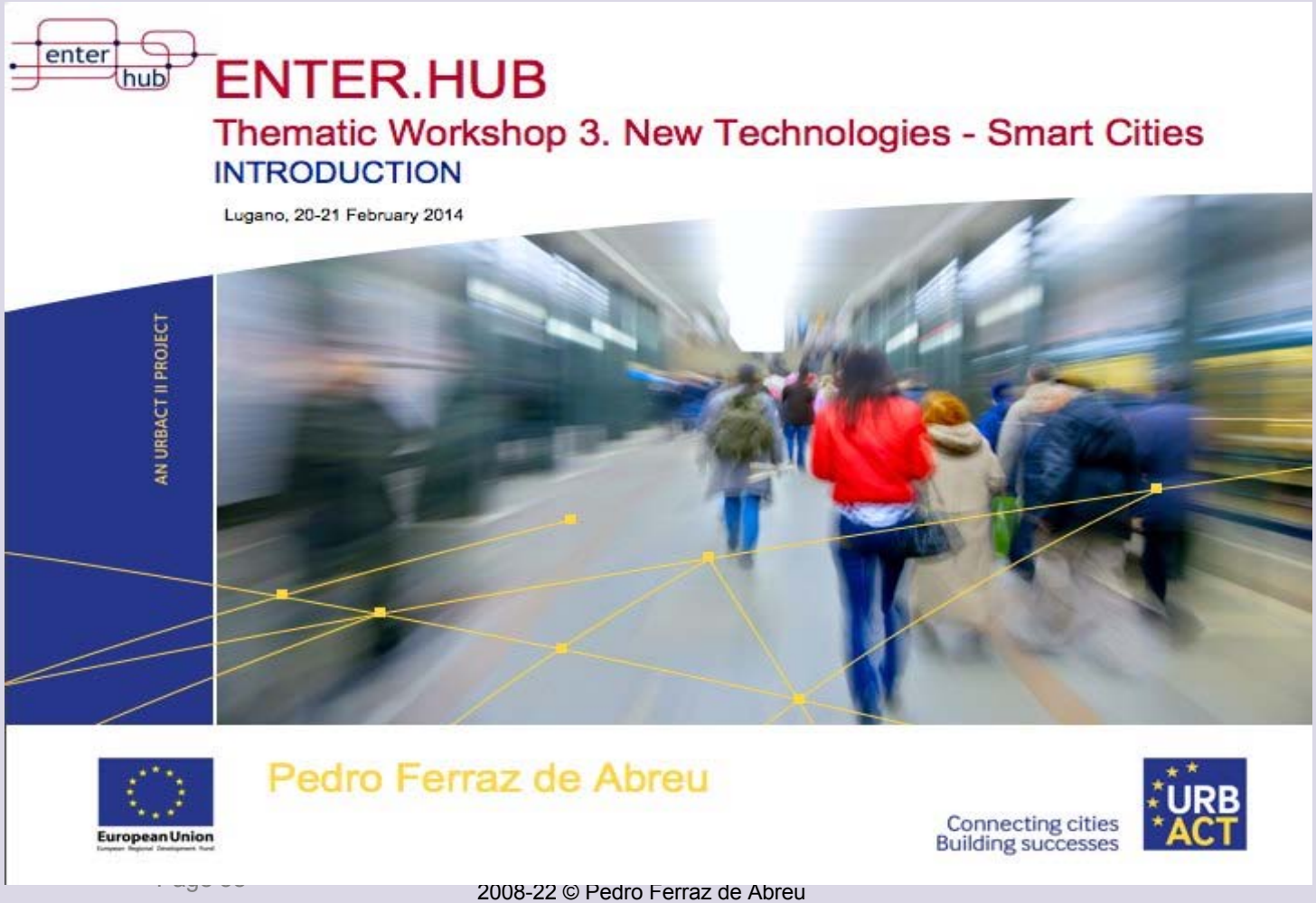
- The "Smart" drive
  - Big Data Problem
  - Key technological advances, f.i. transportation

- Participatory Science revisited
  - Industry strategies
  - Municipality & Region strategies
  - Integrated vs. Distributed data gathering

(see chapter)

2008-22 © Pedro Ferraz de Abreu

Smart Cities



8. ICT impact on theory of power, property & added-value

- What are the determinants of Public Policies?

- How do property rights mold Public Policies?

- Who benefits most from ICT innovation and how?

- What is the major (M) problem today for Public Policies?

- Can Public Policies (& Regulation) solve the M Problem?

2008-22 © Pedro Ferraz de Abreu

8. ICT impact on theory of power, property & added-value

- What are the determinants of Public Policies?

  POWER

- How do property rights mold Public Policies?

  THEY ARE ABOVE THEM (*Montante*)

- Who benefits most from ICT innovation and how?

  WHOM CONTROLS ICT DEVELOPMENT AND OWNS IT

- What is the major (M) problem today for Public Policies?

  INEQUALITY TREND PARADOX

- Can Public Policies (& Regulation) solve the M Problem?

  NOT WITHOUT CHANGE OF MODEL AND POWER VECTOR

2008-22 © Pedro Ferraz de Abreu

New Strategic Thinking for ICT & Public Policy

Fontes de poder	O que a Tecnologia pode afectar?	Notas e conclusões	Exemplos
Informação Conhecimento Intelligence	• Rapidez • Quantidade • Abrangência / Alcance • **Acesso – é um dos elementos mais importantes pela sua transformação drástica.** Passa a ser mais repartido.	A tecnologia não determina a democracia, mas mudou as relações de poder.	Informação é essencial para a vitória: muitas guerras são ganhas pela intelligence.
Força Fisica Armas	• Controle da arma • Produção em massa – Quantidade • Armas de destruição em massa - Amplia a gravidade do impacto • Precisão – aumento da relação custo benefício • Potência da arma • Virtualidade da armas – ataques cibernéticos • Inteligência das armas • Programabilidade, Adaptabilidade, Portabilidade • Arquitectura distribuída, concepções de geometria variável	As armas são um produto tecnológico que amplia a capacidade de projectar poder.	Todos os elementos desta tabela estão relacionados e têm impacto uns nos outros.
Dinheiro Poder económico	• Baixar os custos de produção e transação • Mais condições de competitividade por baixar esses custos. • Abertura a novos mercados – erosão das fronteiras • Rapidez nas transações, • Adaptabilidade das máquinas na produção	A tecnologia permite reforçar o poder de monopólio ou combatê-lo.	A recente compra de difusão de mensagens politicas fake news no Whatsapp no Brasil.
Vontade das pessoas / Escolhas / Livre arbitrio ("Hearts & Minds")	• Decisão – ou tomada de decisão ou apoio à decisão • Condições de participação e comunicação q nunca houve antes • Manipulação subliminar • Interligação das pessoas – estudo das redes é fundamental • Permitir a apropriação da inovação por muito mais pessoas • Circulos de Identidade | factores culturais por grupo / nação • Niveis Literacia (informação, conhecimento, capacidade critica	"a arte de viver em sociedade" – a política nasce como uma resposta às necessidades colectivas.	A tecnologia torna cada vez mais irrelevante a diferença entre géneros p.ex. – mas a lei tarda a mudar e comportamentos sociais também.

8. ICT impact on theory of power, property & added-value

Theory of Public Participation

Public Participation Review:

- **Selznick** (administrative vs. substantive)
- **Vlachos** (awareness, involvement, participation)
- **Glass** (information exchange, education, support building, decision-making supplement, representational input)
- **Frankena, Kennard** (role of the expert)
- **Costs of no participation** (Ferraz de Abreu)
- **ELITIST VS. INCREMENTAL GAINS** (Hirshman, Ferraz de Abreu)
- **LEGITIMACY + QUALIFICATION**

2008-22 © Pedro Ferraz de Abreu

8. ICT impact on theory of power, property & added-value

Property Rights

- Public vs Private - the new spectrum bewteen

- Bundle of Rights

- Dematerialization of property rights
  - ex. DRMA, SmartTV, iTunes
  - Product vs. Service
  - Rent-based models vs. User License
  - Cloud : who controls?

2008-22 © Pedro Ferraz de Abreu

8. ICT impact on theory of power, property & added-value

Added-Value

- Ownership of Tools, Prime Materials, Know-How

- Alienation of Added-Value

- Artisan -> Industry - > New Artisan?

- ICT Innovation Added-Value

- New Alienation of Added-Value, New ICT externalities

- What to do?

2008-22 © Pedro Ferraz de Abreu

8. ICT impact on theory of power, property & added-value

"Free" market economy (self-regulated)

How liberals argue :

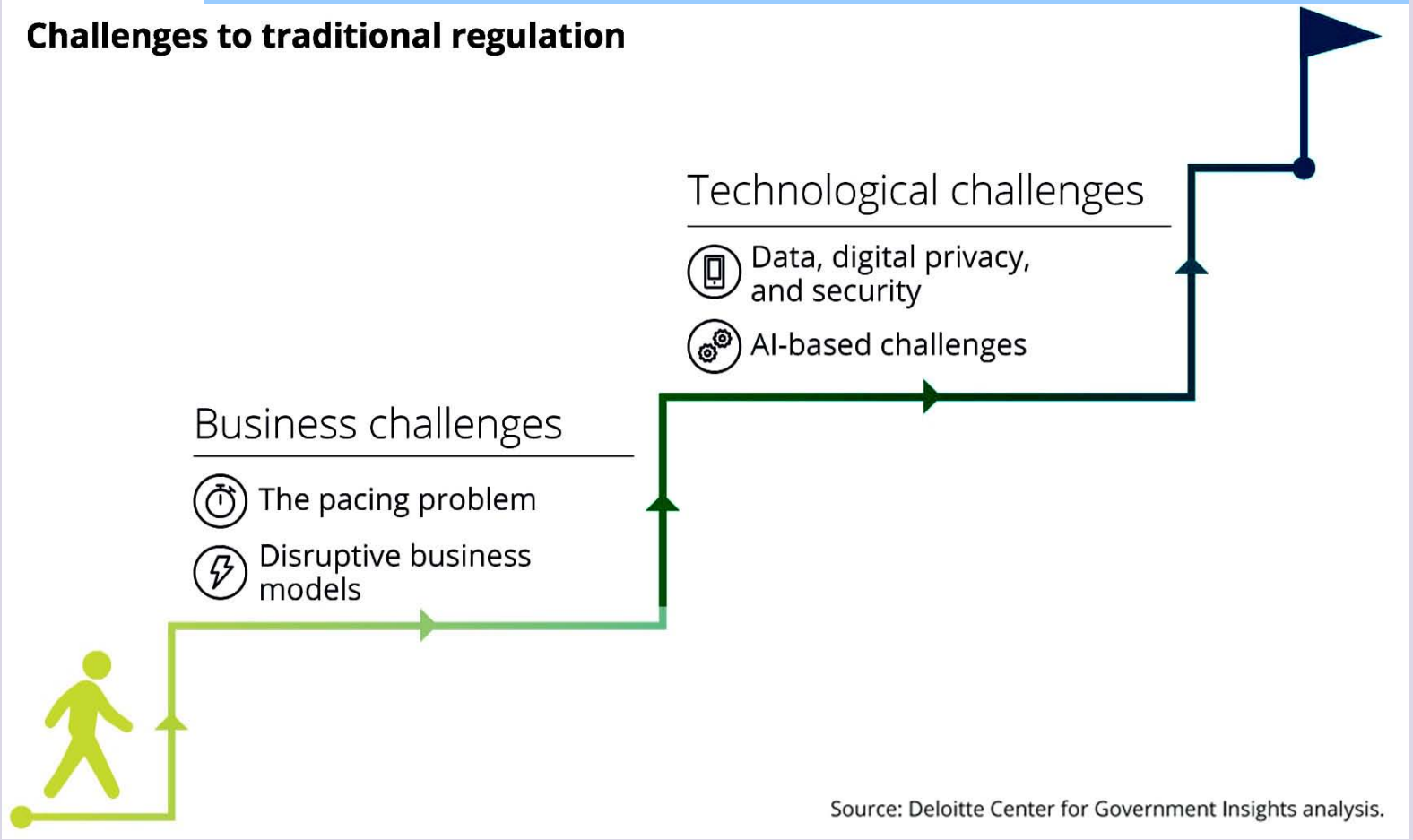
	Laissez-Faire economics	Social democracy/socialism
Ownership	Assets owned by private firms	Some industries nationalised
Equality	Income determined by market forces	Redistribution of income
Prices	Prices determined by supply and demand	Government may regulate some goods
Efficiency	Market incentives encourage firms to cut costs	Government planning may result in inefficiency
Taxes	Limited taxes/ limited government spending	High progressive taxes / Higher spending on public services
Healthcare	Health care left to free-market	Healthcare provided by government free at point of use
Problems	Inequality, market failure, monopoly	Inefficiency of state industry, less incentives,
Advantages	Dynamic economy, incentives for innovation and economic growth	Promotion of equality. Attempt to overcome market failure.

"Laissez-faire economics" (Tejvan Pettinger 2017)
https://www.economicshelp.org/blog/20190/concepts/laissez-faire-economics/

2008-22 © Pedro Ferraz de Abreu

8. ICT impact on theory of power, property & added-value

ICT Challenges to Regulation



There is a glaring contrast between the world's research agenda and the world's research needs

HDR 2001

2008-22 © Pedro Ferraz de Abreu

Disciplina Opcional (10 ECTS)

Participação Pública e Sistemas de Apoio `a Decisão

- **I - Decision, Public Participation & ICT**
  - » **in chosing government**
  - » **in government acts**
  - » **In civil society**
- **II - Theory**
  - » **Of Social Nature**
  - » **Of State**
  - » **Of Political Economy**
  - » **Of Government (e-G)**
  - » **Of Governance**
  - » **Of Participation**
  - » **Of Decision**
  - » **Of Communication**
  - » **Of Knowledge**
- **III - Decision Support Systems**
- **(Project Samples)**

2008-22 © Pedro Ferraz de Abreu

INVESTIGAÇÃO, ENSINO, TRANSFERÊNCIA DE CONHECIMENTO NA ÁREA DE INCLUSÃO DIGITAL E DESENVOLVIMENTO EQUILIBRADO COM AS CIDADES NA LUTA PELA ERRADICAÇÃO DA POBREZA.

- O que aprendemos da luta civica
  - A importancia dos ideais
  - A importancia das TIC
  - A importancia de construir comunidades
- O que aprendemos da engenharia
  - Natureza das novas TIC
- O que aprendemos das ciencias sociais
  - Geopolitica da sociedade de informação
  - Politicas Publicas de Inclusão
  - Cidade "Inteligente"… e o Rural?
- A abordagem e-Planning

2008-22 © Pedro Ferraz de Abreu

e-Planning Public Policy - a few key concepts ...

- government vs governance

- ?

- power

- ?

e-Planning Public Policy - a few key concepts ...

- government vs governance
- regulated systems
- transients vs stability
- enabling vs providing
- property vs ownership vs management
- added-value appropriation spread
- natural monopolies
- net neutrality
- privacy & liberty vs security & efficiency
- power
- policy vs decision
- participatory science
- integrated vs distributed
- open data & standards
- capacity building
- cui bono
- regulatory framework
- institucional framework

2008-22 © Pedro Ferraz de Abreu

MIT-Portugal / e-Planning Agenda

Ultrapassando a abordagem disciplinar tradicional da "caixa negra" ...

Ciência Social	=>	Tecnologia do ponto de vista do "utilizador"	=>	**Tecnologia a cargo dos Engenheiros**
Tecnologia	=>	Ciência social do ponto de vista do "consultor"	=>	**Ciência social a cargo dos Cientistas sociais**

... para uma nova abordagem sinóptica transdisciplinar do e-Planning:

Cientistas Sociais	<=>	Desenvolver tecnologia compreendendo as ciências sociais; e desenvolver as ciências sociais compreendendo a tecnologia.	<=>	Cientistas e Engenheiros da Tecnologia

2008-22 © Pedro Ferraz de Abreu

MIT-Portugal / e-Planning Agenda

Doutoramento e-Planning

UTL
UNL
UL
UA

Colaboração
MIT-DUSP

e-infrastructure	**e-planning knowledge infrastructure**
e-government	**e-planning for the government of the future**
e-governance	**e-planning for a new governance**
e-city & territory	**e-planning for the city of the future**
e-citizenship	**e-planning for a new citizenship**

www.e-planning.org

2008-22 © Pedro Ferraz de Abreu

Participatory Science

CITIDEP PROGRAMS Citizenship & ICT

Contact nodes: pfa@mit.edu

Tânia Fonseca	Açores
Timothy Sieber	USA
Luis Rionda	Mexico
Muriel Gavira	Brasil
Clelia Guinazu	Argentina
Valérie Aillaud	France
Laura Colini	Italy
Vesna Dolnicar	Slovenia
Pedro Ferraz de Abreu	Portugal

www.citidep.pt • www.citidep.net

2008-22 © Pedro Ferraz de Abreu

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

CITIDEP +
e-Planning Lab
@ CAPP/TSG

Laboratórios de Tecnologia para as Ciências Sociais

2007-2012 **ISCSP-UTL**

www.labtec-cs.net

2008-22 © Pedro Ferraz de Abreu

- **TIC e Inclusão, Literacia, Cooperação**
- **Cidades Inteligentes, Coesão & Sistemas Participativos**
- **Governança Internet, Dados Abertos, Segurança & Privacidade**

Laboratórios de Tecnologia e Sociedade

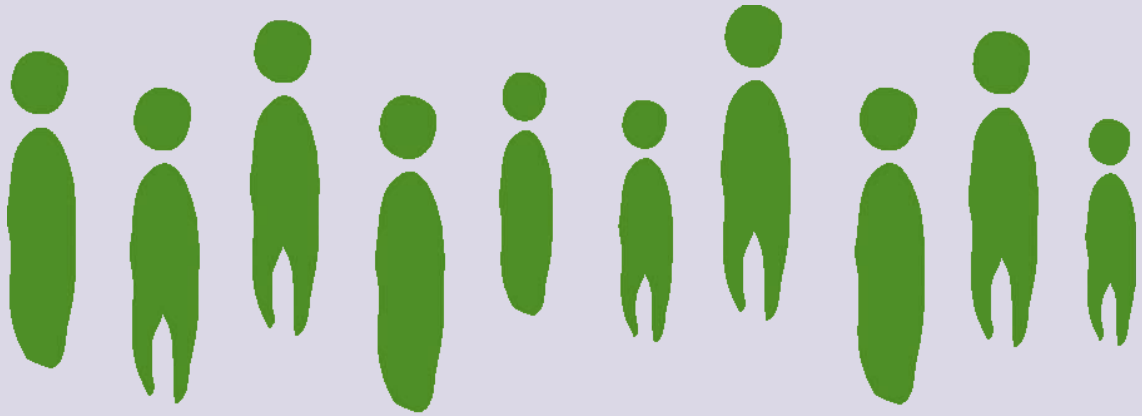
FC-UL

2013-2014

CITIDEP +
e-Planning Lab
@ DEGGE

www.labtec-ts.net

- **TIC e Inclusão, Literacia, Cooperação**
- **Cidades Inteligentes, Coesão & Sistemas Participativos**
- **Governança Internet, Dados Abertos, Segurança & Privacidade**



Laboratórios de Tecnologia e Sociedade

UA

2015-2018

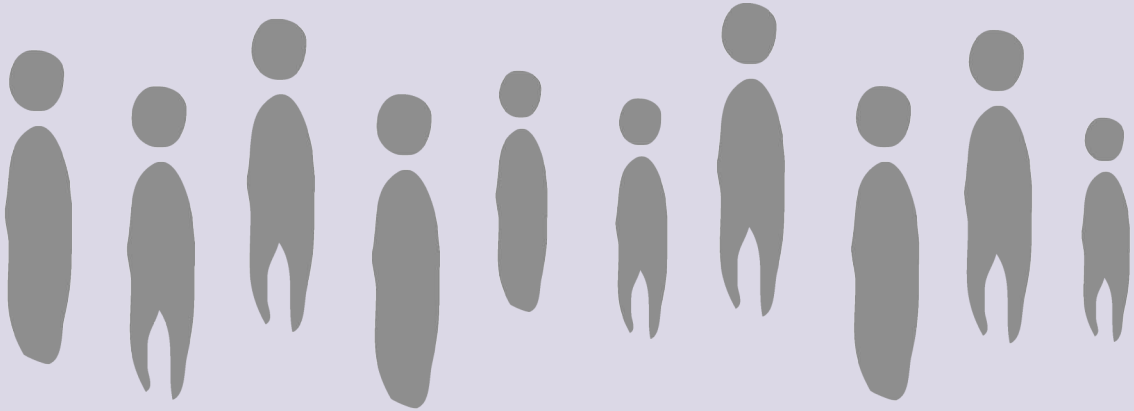
CITIDEP +
e-Planning Lab
@ GOVCOP

www.labtec-ts.net

(ficou em fase de proposta na UA)

2008-22 © Pedro Ferraz de Abreu

- **TIC e Inclusão, Literacia, Cooperação**
- **Cidades Inteligentes, Coesão & Sistemas Participativos**
- **Dados Abertos, Segurança & Privacidade**



Laboratórios de Tecnologia e Sociedade

FA-UL

2019-2022

CITIDEP +
e-Planning Lab
@ CIAUD

www.labtec-ts.net

(em fase de proposta na FA-UL)

2008-22 © Pedro Ferraz de Abreu

www.e-planning.org

www.labtec-ts.net

www.citidep.net

Pedro Ferraz de Abreu, PhD
pfa@mit.edu

CITIDEP - Centro de Investigação de Tecnologias de Informação para uma Democracia Participativa
Presidente

MIT - Massachusetts Institute of Technology
DUSP - Dept. of Urban Studies & Planning
Research Associate

Universidade de Lisboa, Universidade de Aveiro
ISCSP-UTL (2007-12); FC-UL (2013-14); UA (2015-19); FA-UL (2019-22)
Prof. Catedrático Convidado

2008-22 © Pedro Ferraz de Abreu