



e-Planning in a world embattled by war and poverty:

***Why should planners study and
influence the information technology
revolution?***



Pedro Ferraz de Abreu

5 December 2003

MIT - DUSP - UIS



- “Washington consensus” is a flop
- Recent ICT is a qualitative jump
- Institutional framework must change
- ICT is key to institutional change
- Knowledge is the core concept here
- Challenges and opportunities in e-Planning

ICT - Information and Communication Technologies



At the G8 meeting in 2000, protesters set fire to a laptop computer on an Okinawa beach. "We can't eat computers", "people are dying", was the message in response to what was seen as a technology "fad" distracting from real priorities. But the Human Development Report of 2001 (UNDP) argues that information and communication technologies (ICT) "can make major contributions to reducing world poverty" and are "truly a breakthrough technology for democracy and expansion of knowledge for poor people" (HDR 2001, UNDP).

In this session, we will examine some evidence that both sides are right and briefly discuss what questions need to be asked in order to understand and solve this paradox.



How the gap between the rich and the poor is widening, both at global and local levels, despite of, or in consequence of, ICT developments with current policies within the so-called "Washington consensus"?

- Why recent ICT developments represent a qualitative jump concerning its social-political-economic impacts?
- What are the consequences of the market-driven ICT development models and strategies?
- How ICT challenges the current institutional and regulatory framework?
- Why simply "throwing in" technology to poor regions or neighborhoods is likely to fail reversing bad trends?
- Which are the most promising areas where ICT may improve the planning process, and how to get there?



1-“Washington consensus” a flop?





...and democracy

Countries with multiparty elections (percent)



Source: IMF, OECD, UN
and World Bank 2000.



1- Washington consensus a flop?

- **Poor-rich gap is widening**
- Link between ICT and HDI , HPI
- Neo-liberal + neo-conservative policy flop
- The big myth : “free” market ?
- G8 fighting globalization?
- New policies?



TABLE 1.1
Serious deprivations in many aspects of life

Developing countries

Health

- 968 million people without access to improved water sources (1998)
- 2.4 billion people without access to basic sanitation (1998)
- 34 million people living with HIV/AIDS (end of 2000)
- 2.2 million people dying annually from indoor air pollution (1996)

Education

- 854 million illiterate adults, 543 million of them women (2000)
- 325 million children out of school at the primary and secondary levels, 183 million of them girls (2000)

Income poverty

- 1.2 billion people living on less than \$1 a day (1993 PPP US\$), 2.8 billion on less than \$2 a day (1998)

Children

- 163 million underweight children under age five (1998)
- 11 million children under five dying annually from preventable causes (1998)

OECD countries

- 15% of adults lacking functional literacy skills (1994–98)
- 130 million people in income poverty (with less than 50% of median income) (1999)
- 8 million undernourished people (1996–98)
- 1.5 million people living with HIV/AIDS (2000)

Source: Smeeding 2001b; UNAIDS 2000a, 2000b; UNESCO 2000b; World Bank 2000d, 2001b, 2001c, 2001f; WHO 1997, 2000b; OECD and Statistics Canada 2000.



2003 Human Development Index Reveals Development Crisis

Sna

21 countries suffered socio-economic reversals in the 1990s

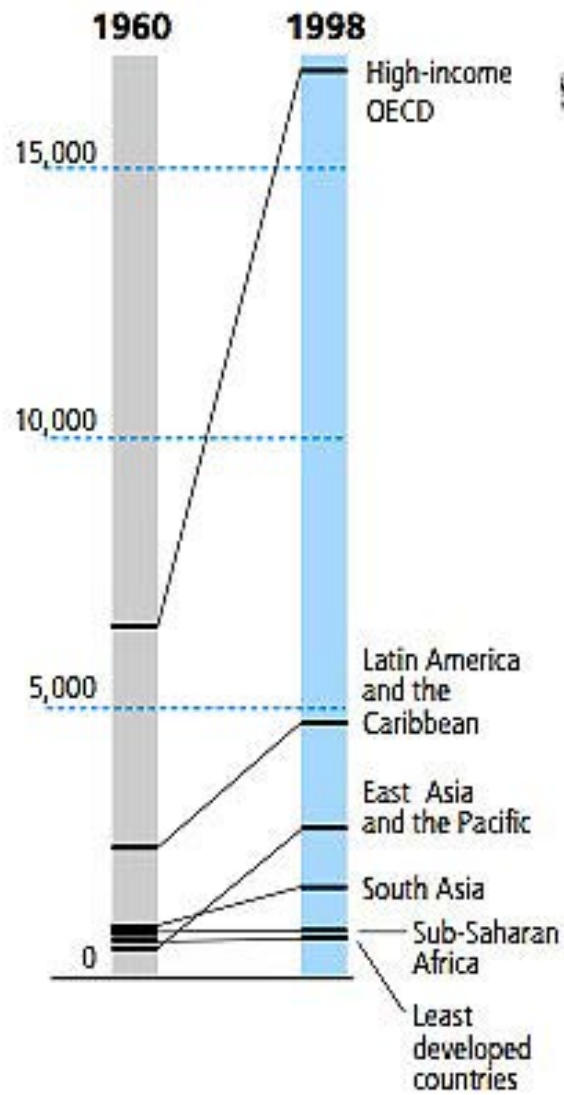
New York, 8 July 2003—The world is facing an acute development crisis, with many poor nations suffering severe and continuing socio-economic reversals, warns the *Human Development Report 2003*.

The Report's annual Human Development Index (HDI), measuring the progress of nations on key social and economic indicators, shows that 21 countries experienced declines in the 1990s. In the 1980s, only four countries tracked by UNDP showed similar decade-long declines.

“Reversals in HDI are highly unusual as these indicators generally tend to edge up slowly over time,” said Mark Malloch Brown, UNDP Administrator. “The fact that over the course of the 1990’s, 21 countries experienced a decline—in some cases a drastic drop—signifies an urgent call for action to address health and education as
5 well as income levels in these countries.”

Widening income gap between regions

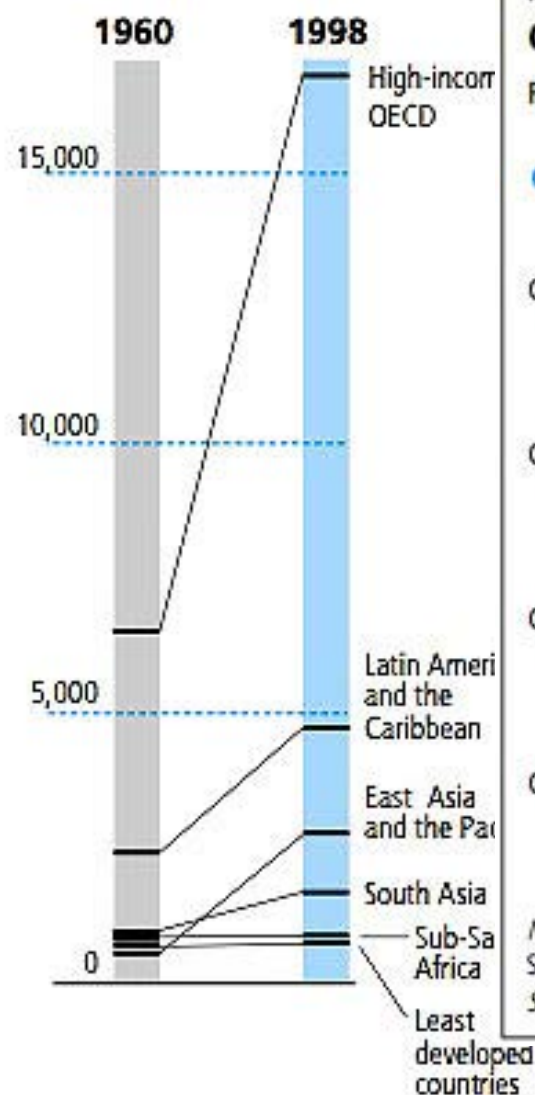
GDP per capita (1985 PPP US\$)



Source: Human Development Report Office calculations based on World Bank 2001g.

Widening income gap between regions

GDP per capita (1985 PPP US\$)

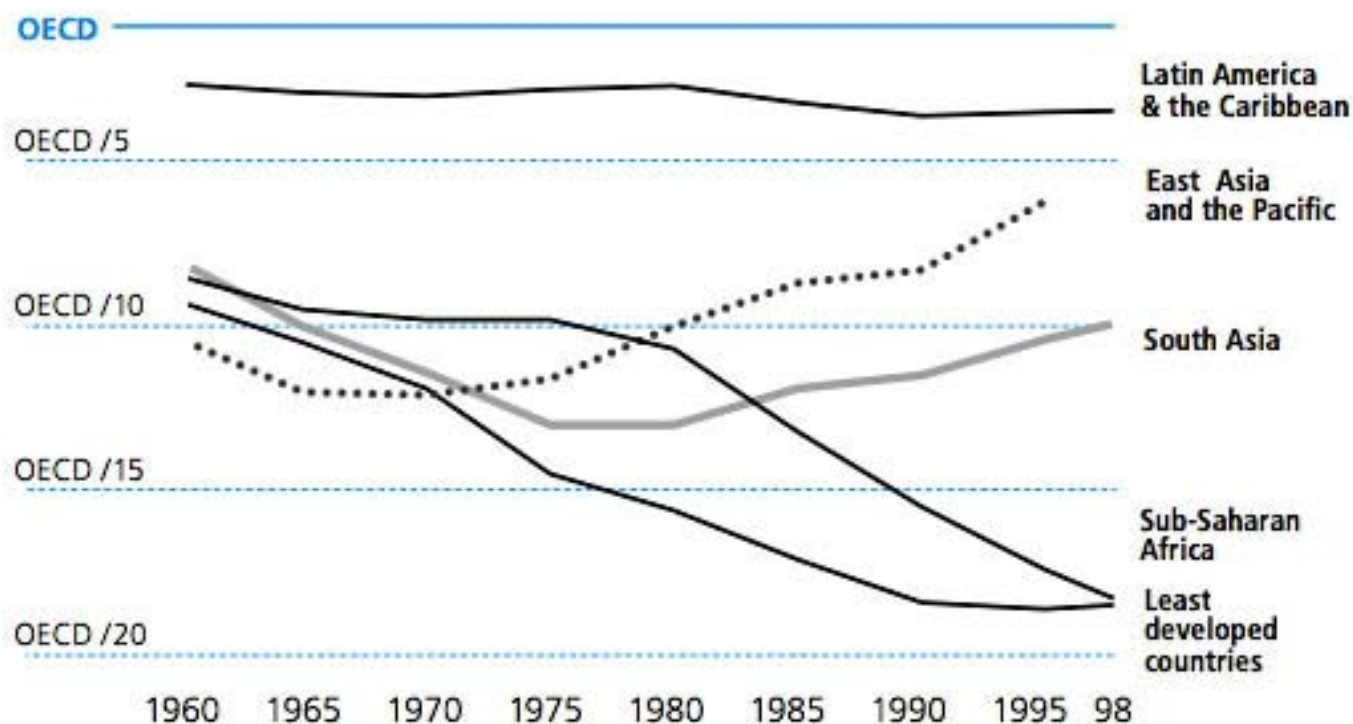


Source: Human Development Report Office calculations based on World Bank 2001g.

FIGURE 1.5

Comparing incomes—developing regions and high-income OECD

Regional average GDP per capita (1985 US\$ PPP) as a ratio of that of high-income OECD countries



Note: High-income OECD excludes OECD members classified as developing countries and those in Eastern Europe and the CIS. See the classification of countries.

Source: Human Development Report Office calculations based on World Bank 2001g.

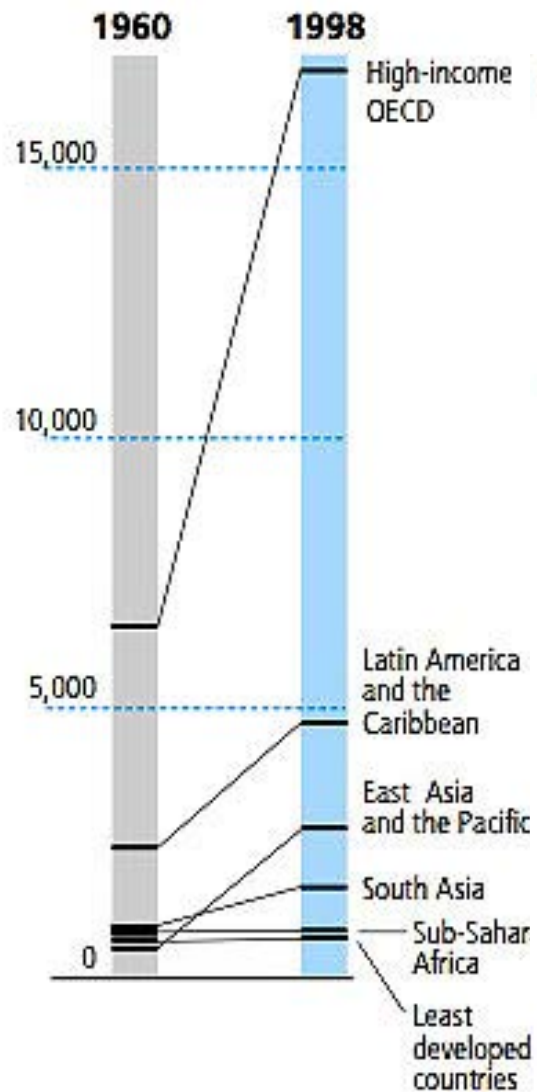


1- Washington consensus a flop?

- **Poor-rich gap is widening**
- **Link between ICT and HDI , HPI**
- Neo-liberal + neo-conservative policy flop
- The big myth : “free” market ?
- G8 fighting globalization?
- New policies?

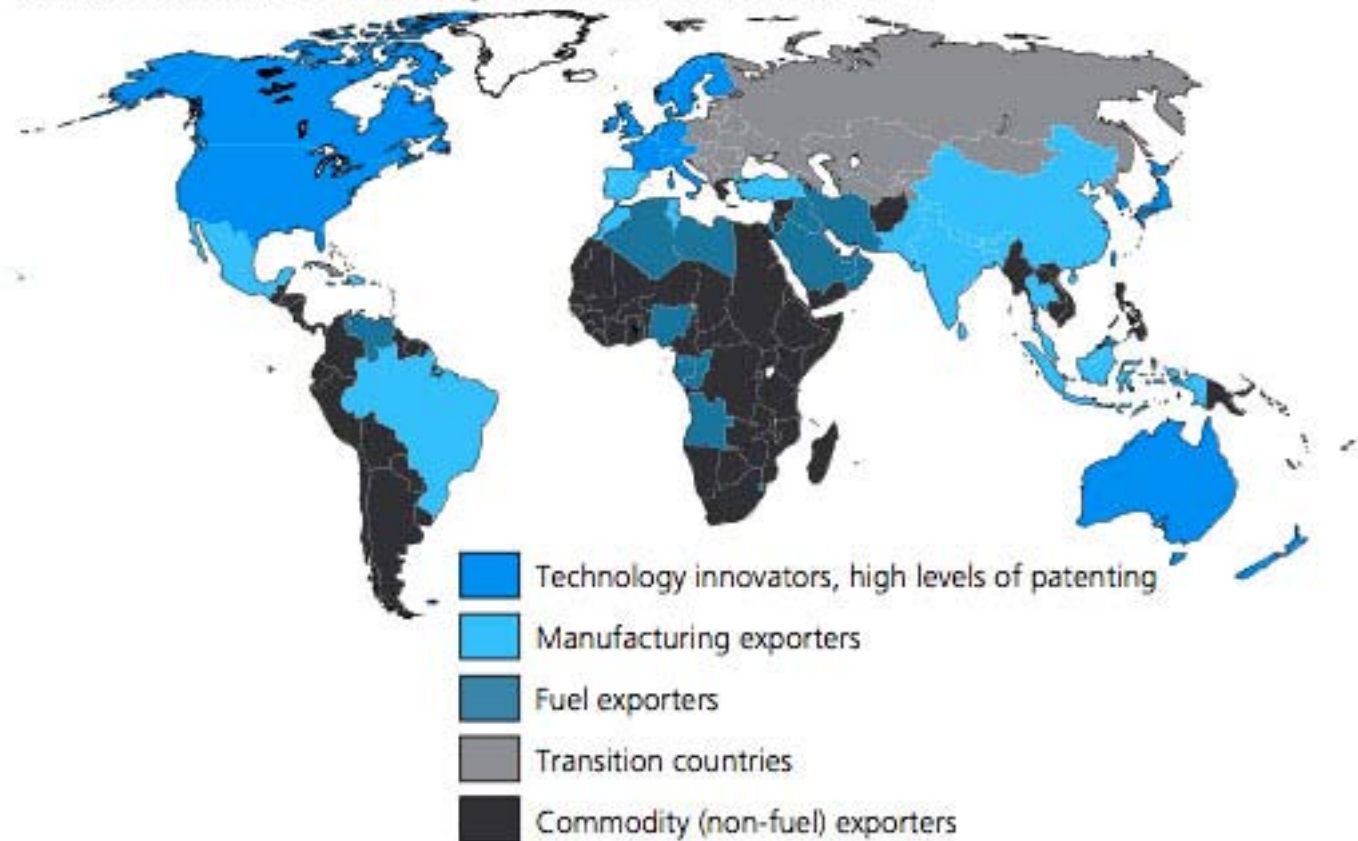
Widening income gap between regions

GDP per capita (1985 PPP US\$)



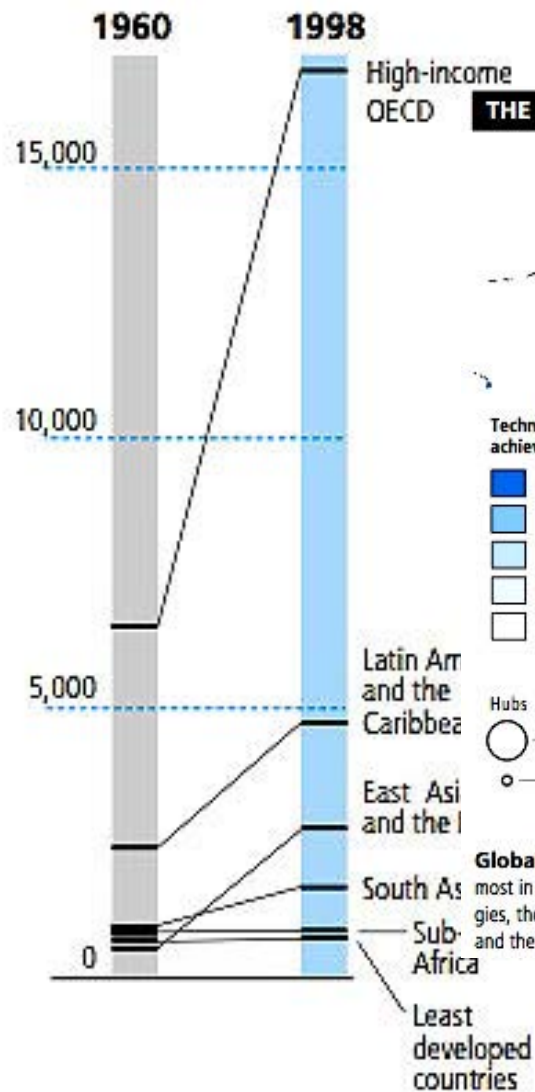
Source: Human Development Report Office calculations based on World Bank 2001g.

Classification of countries by economic structure, 1995

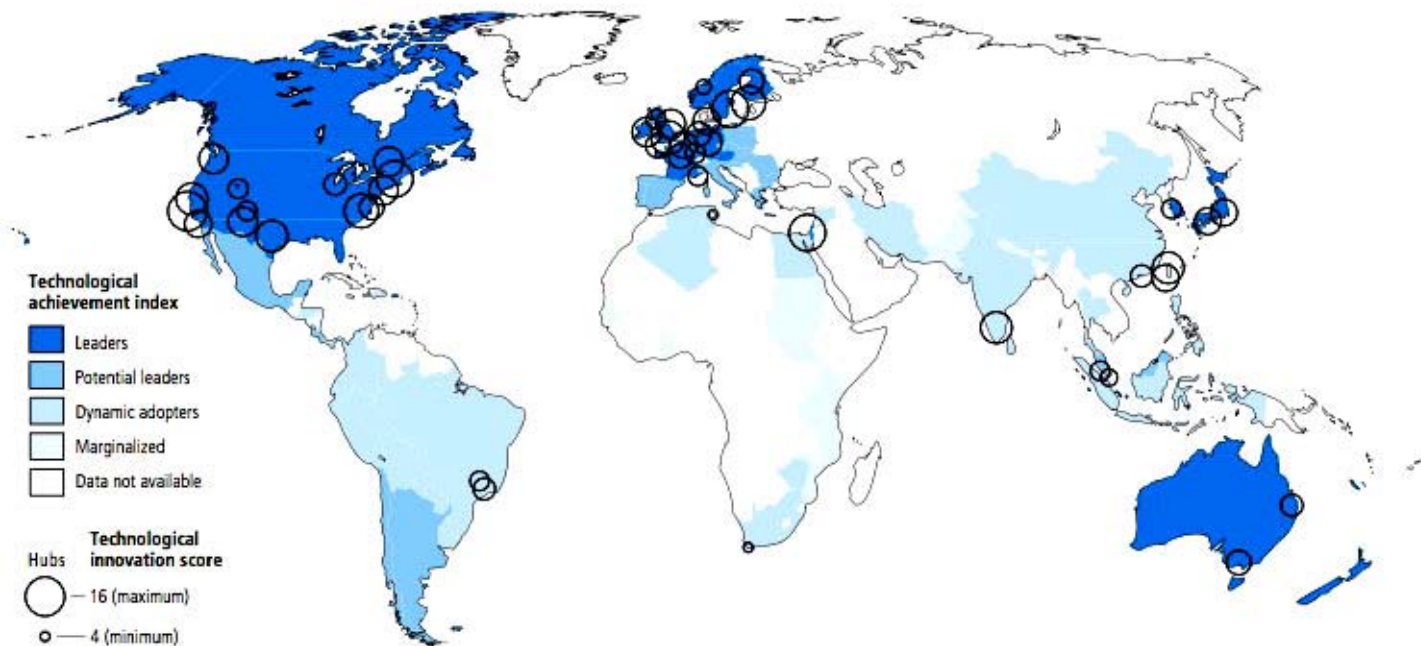


Widening income gap between regions

GDP per capita (1985 PPP US\$)



THE GEOGRAPHY OF TECHNOLOGICAL INNOVATION AND ACHIEVEMENT



Global hubs of technological innovation In 2000 *Wired* magazine consulted local sources in government, industry and the media to find the locations that matter most in the new digital geography. Each was rated from 1 to 4 in four areas: the ability of area universities and research facilities to train skilled workers or develop new technologies, the presence of established companies and multinational corporations to provide expertise and economic stability, the population's entrepreneurial drive to start new ventures and the availability of venture capital to ensure that the ideas make it to market. Forty-six locations were identified as technology hubs, shown on the map as black circles

Source: Human Development Report Office calculations based on World Bank 2001g.



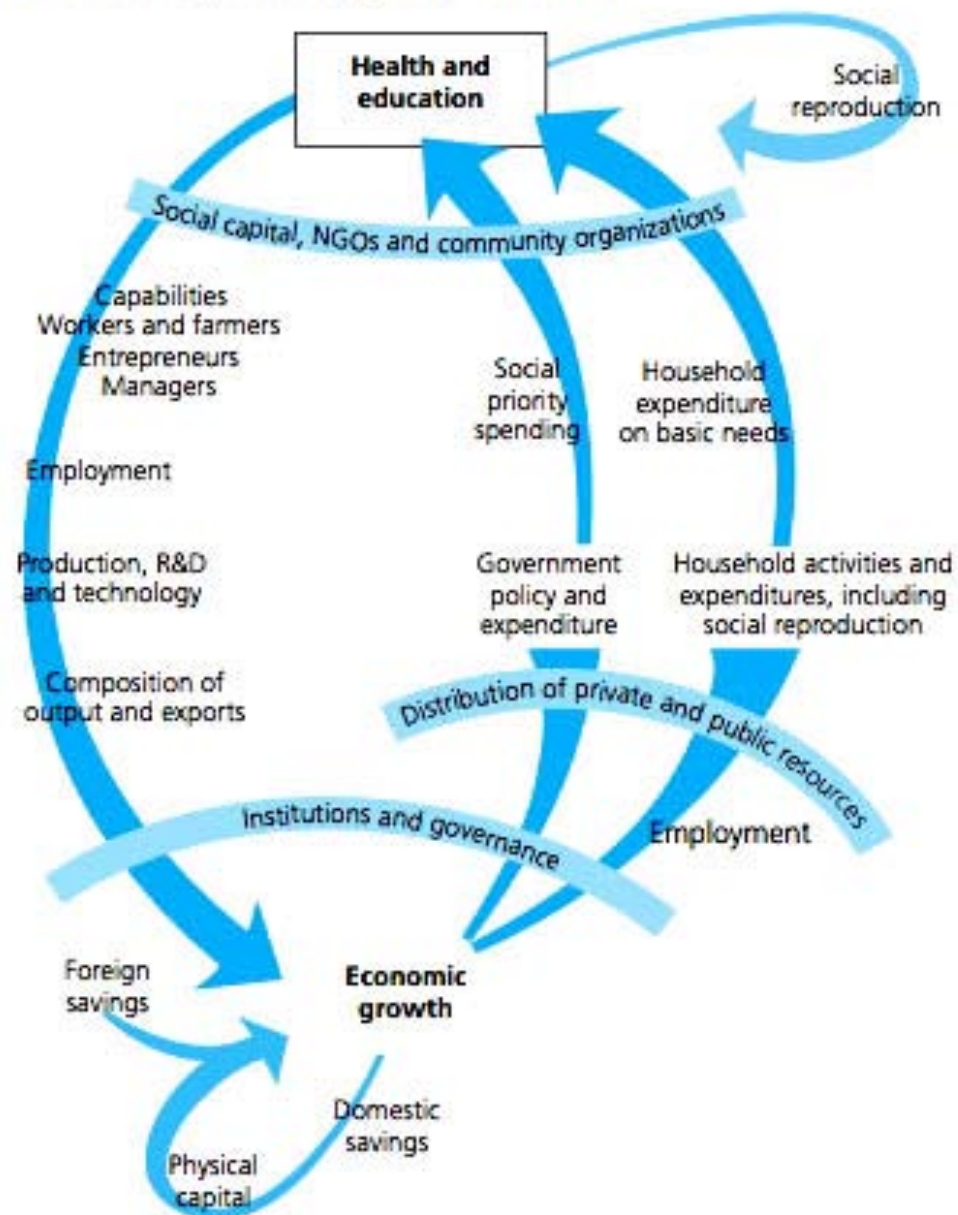
1- Washington consensus a flop?

- **Poor-rich gap is widening**
- **Link between ICT and HDI , HPI**
- **Neo-liberal + neo-conservative policy flop**
- The big myth : “free” market ?
- G8 fighting globalization?
- New policies?



FIGURE 3.3

From human development to growth—and back

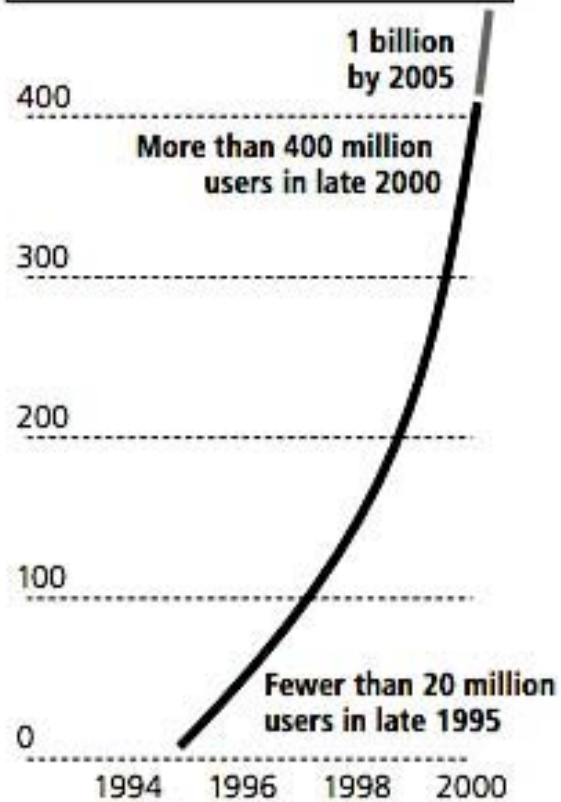


Source: UNDP 1996.



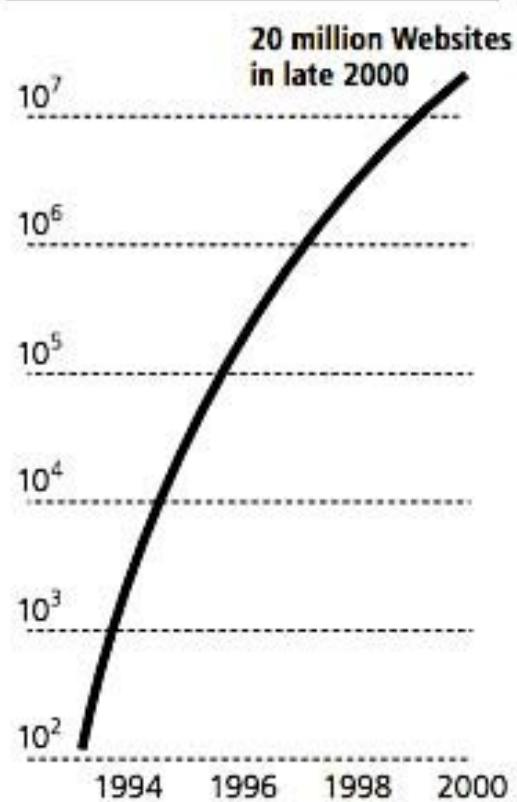
Rapid Advances in Information and Communications Technology

More people have access . . .
Millions of Internet users



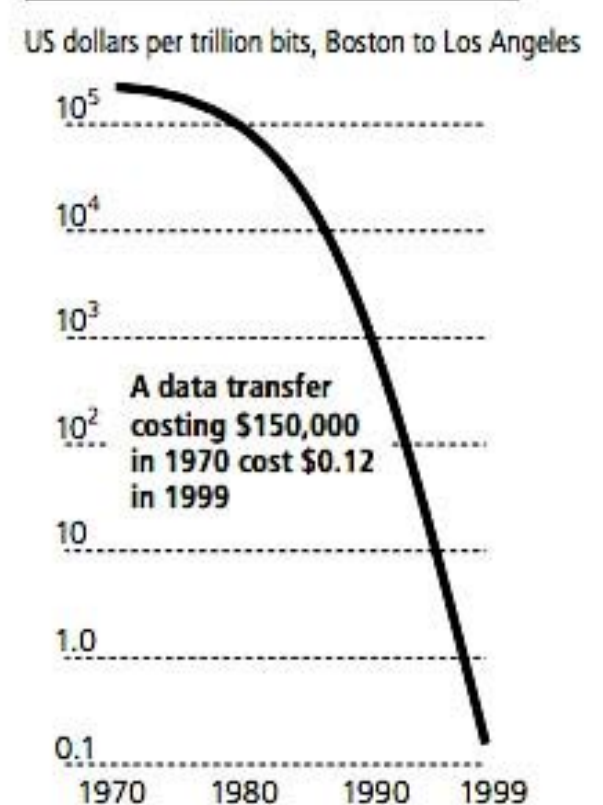
Source: Nua Publish 2001.

. . . to more information . . .
Number of Websites



Source: Robert Hobbes Zakon. 2000.
Hobbes Internet Timeline

. . . at a lower cost
Transmission cost



Source: Cox and Alm. 1999. The New Paradigm

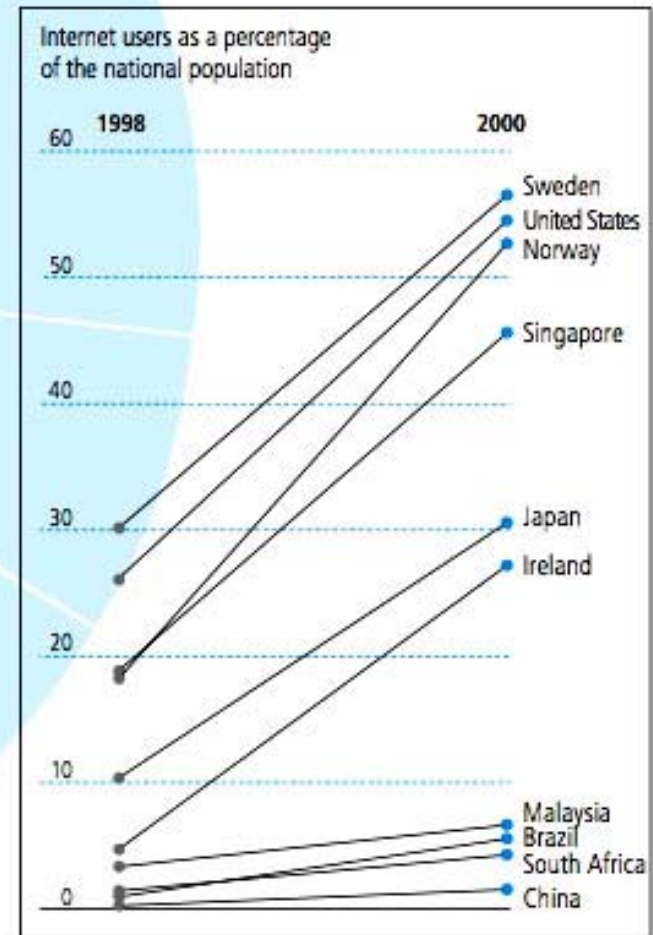
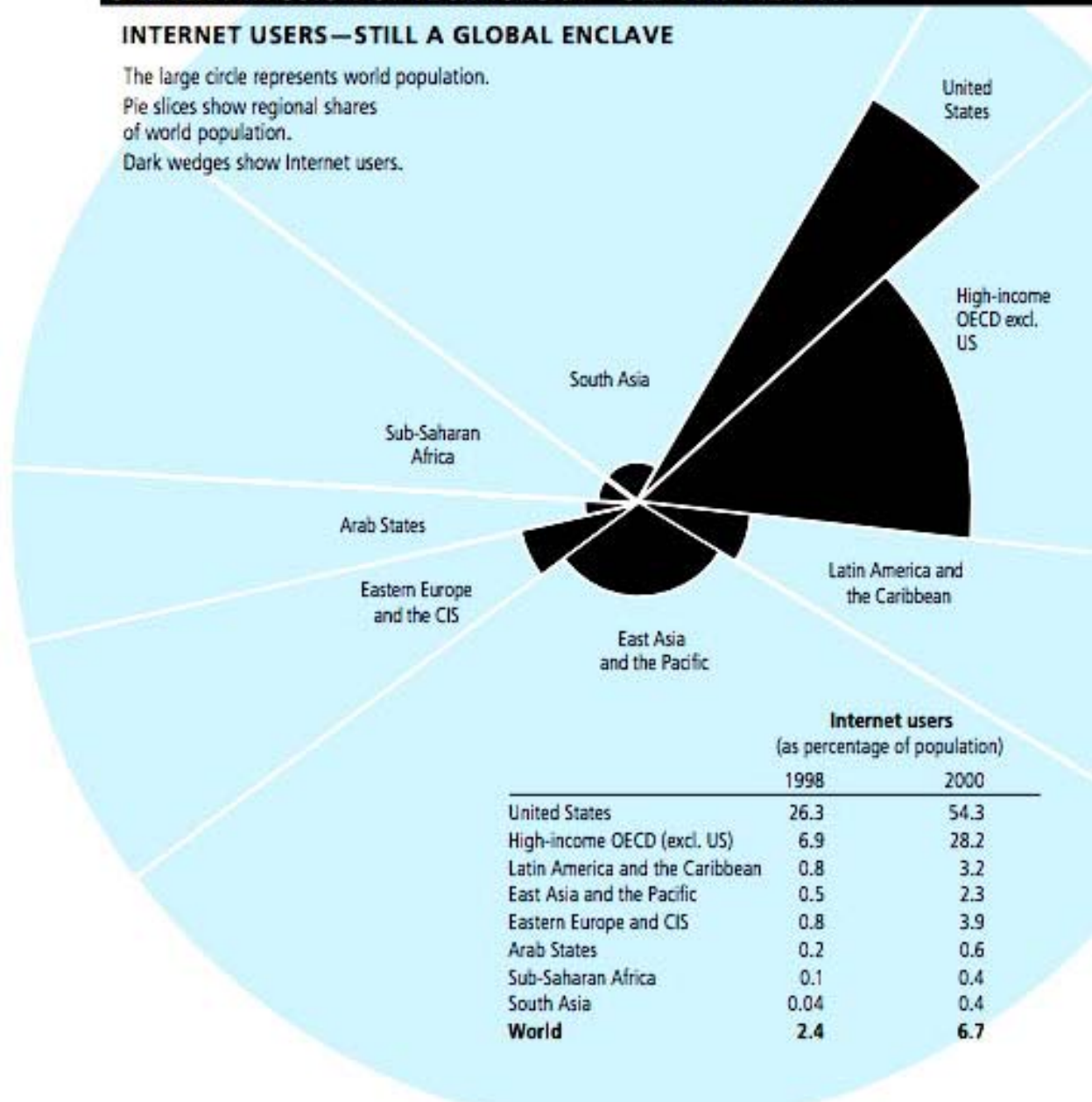


*In the network age, every
country needs the
capacity to understand
and adapt global
technologies for local
needs*

HDR 2001

INTERNET USERS—STILL A GLOBAL ENCLAVE

The large circle represents world population.
Pie slices show regional shares
of world population.
Dark wedges show Internet users.

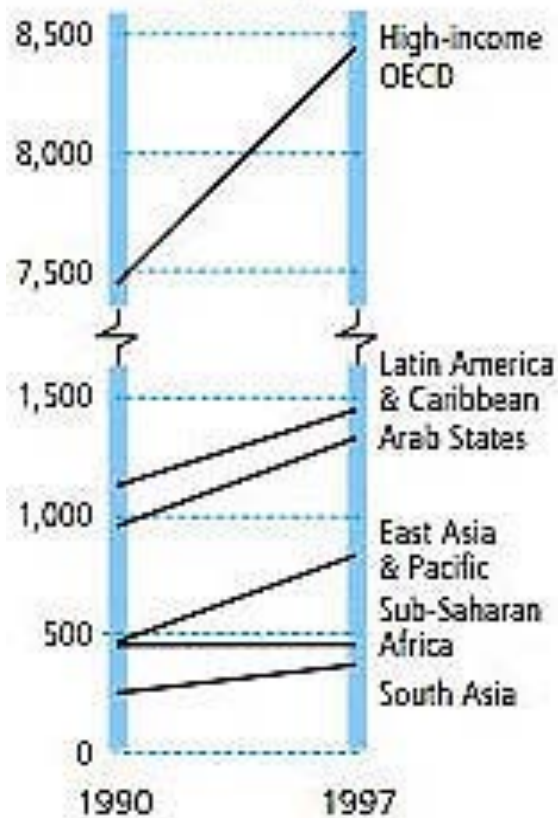


Source: Human Development Report Office calculations based on data supplied by Nua Publish 2001 and UN 2001c.

The digital divide is nothing new. Diffusion of decades-old inventions has slowed

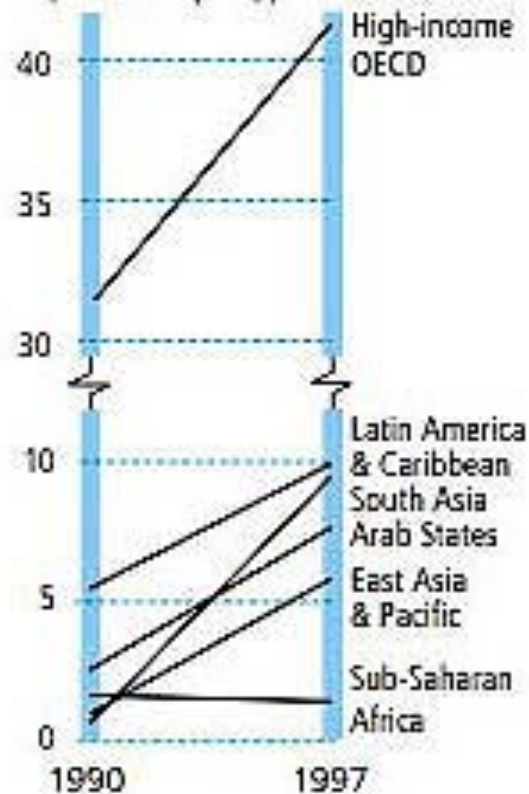
ELECTRICITY

Kilowatt-hours per capita



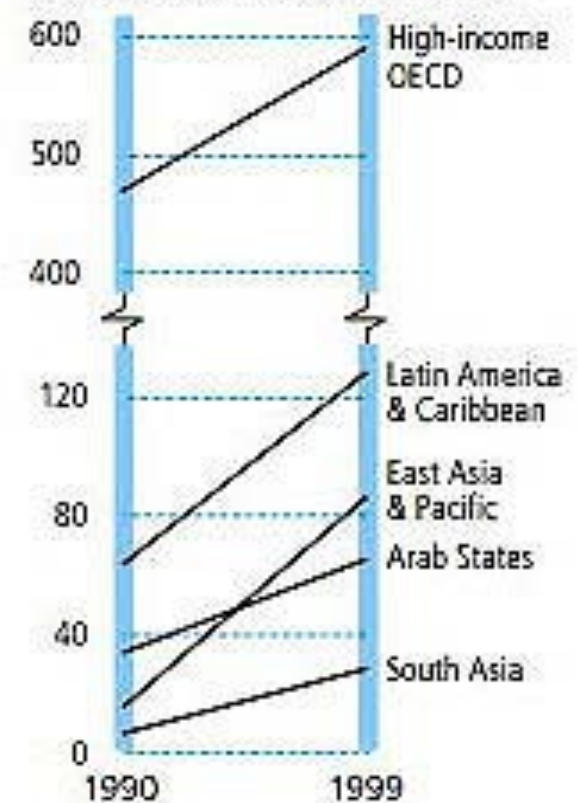
TRACTORS

Per 1,000 hectares of permanently cropped land



TELEPHONES

Telephone mainlines per 1,000 people



Source: Human Development Report Office calculations based on World Bank 2001h, FAO 2000a and ITU 2001b.

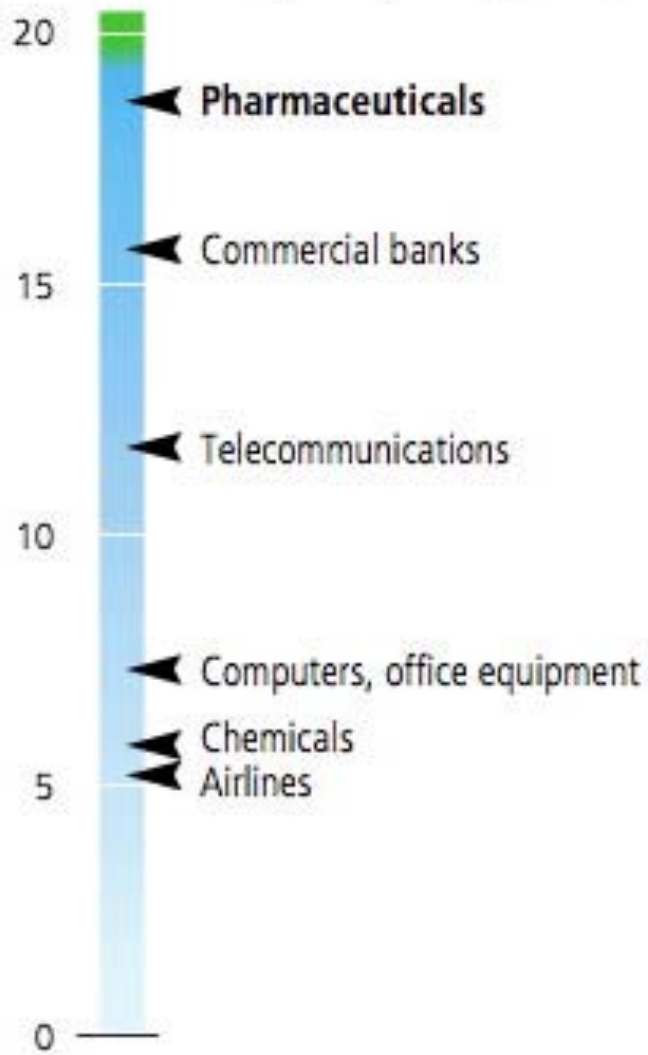


*Policy, not charity, will
determine whether new
technologies become a
tool for human
development everywhere*

HDR 2001

Profitable industry— pharmaceuticals top the list

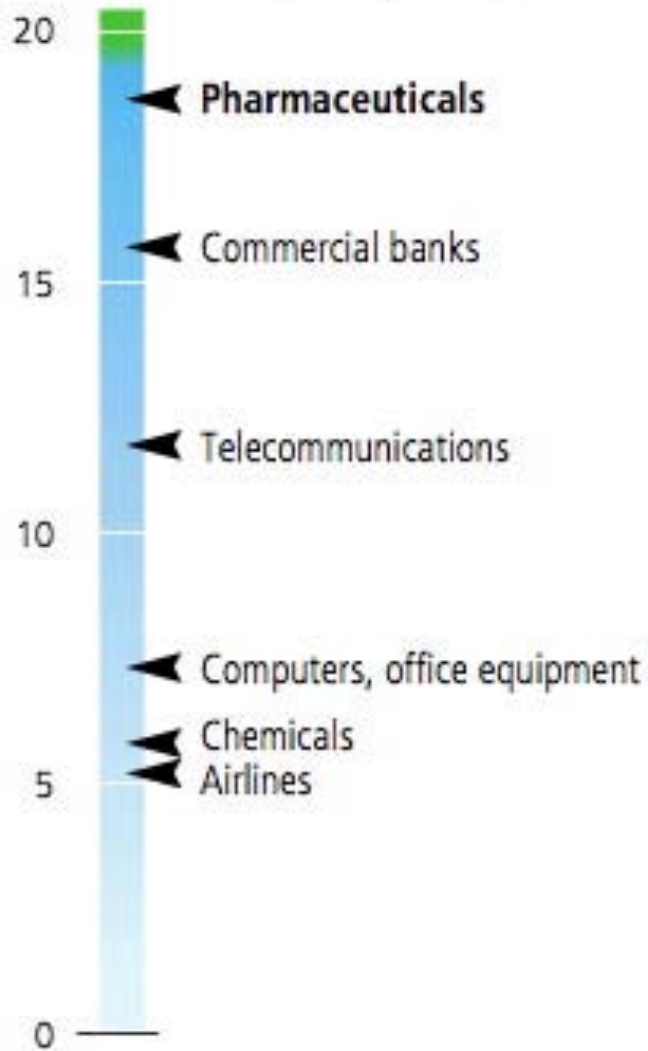
Median return on revenue for
Fortune 500 companies, 1999 (percent)



Source: Fortune 2000.

Profitable industry— pharmaceuticals top the list

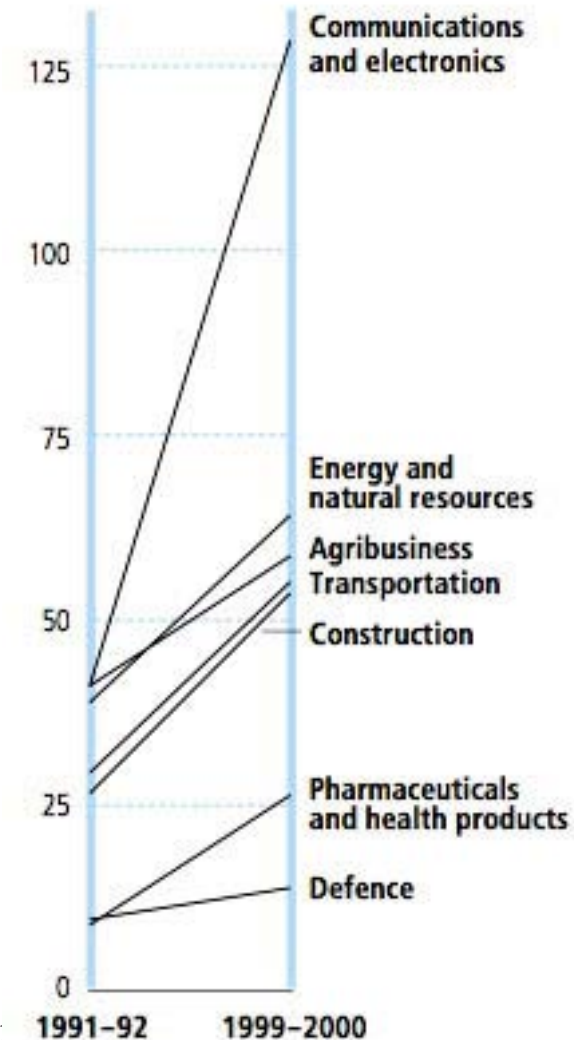
Median return on revenue for
Fortune 500 companies, 1999 (percent)



Source: Fortune 2000.

Industry's influence over public policy

Contributions to federal candidates and
political parties in the United States
(millions of 2000 US\$)



Pla Source: Centre for Responsive Politics 2001.



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

HDR 2001



1- Washington consensus a flop?

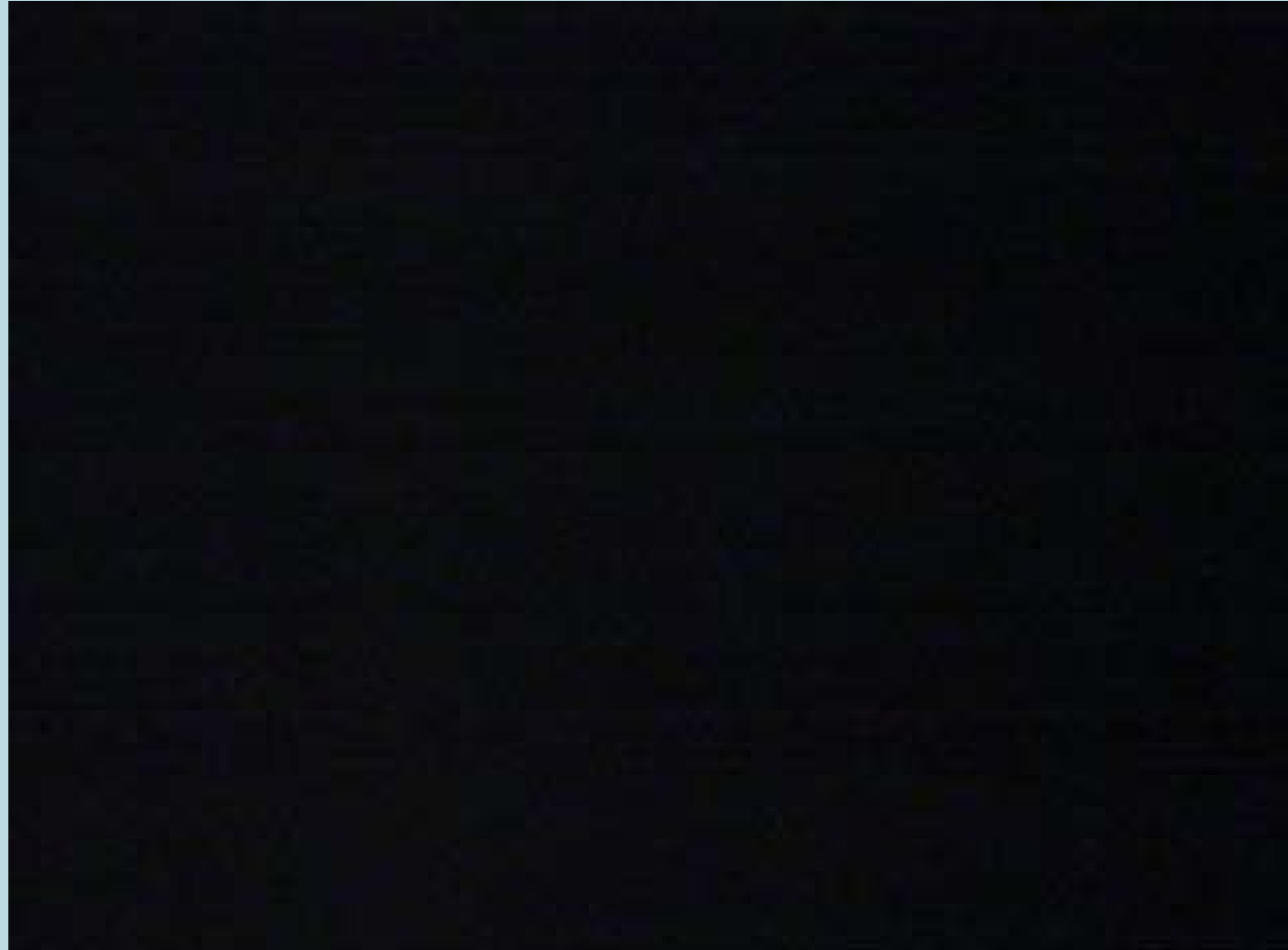
- **Poor-rich gap is widening**
- **Link between ICT and HDI , HPI**
- **Neo-liberal + neo-conservative policy flop**
- **The big myth : “free” market ?**
- G8 fighting globalization?
- New policies?



ICT market failures

1984

(Apple_1984.mov)

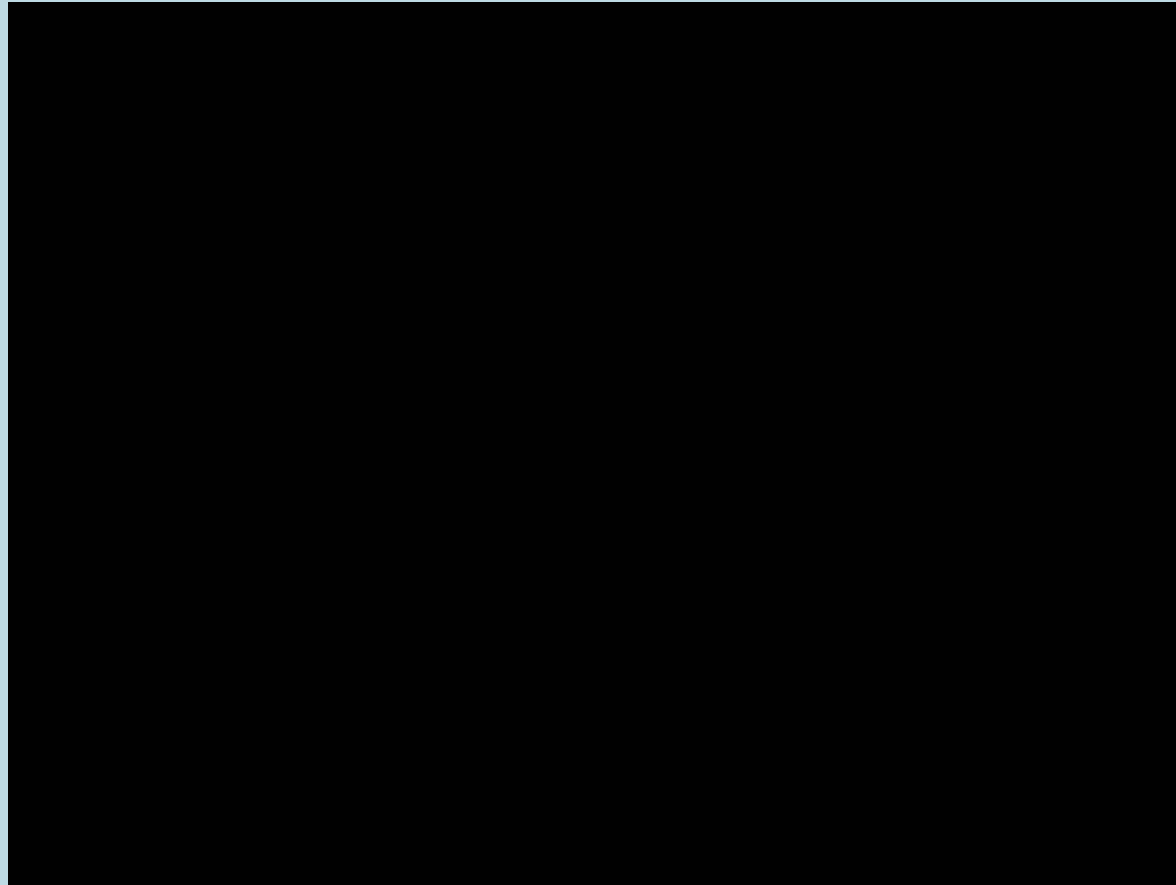




Obsolete Criteria of Progress ?

GDP

(GDP_320.mov)





“Pressures” from “Market” or from “Washington consensus” policies ?

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

HDR 2001



1- Washington consensus a flop?

- **Poor-rich gap is widening**
- **Link between ICT and HDI , HPI**
- **Neo-liberal + neo-conservative policy flop**
- **The big myth : “free” market ?**
- **G8 fighting globalization?**
- New policies?



Globalization is not a new phenomenon; one may say that WW I was the first brutal expression of a globalized world reality.

What we must understand is the difference between political and economical frameworks at the time of steam engine and emerging Industrial Revolution (manufacture) and at our time of computers + world nets in emerging globalization, with emerging Information Economy and a pressure towards participatory democracy.

Information Technology and Information Economy is facilitating, to a degree that never existed before (qualitative jump), the mobility of capital (finance and economy); but while it brings with it the potential for citizen mobility as well, the current dominant political superstructure is resisting and restraining such mobility. This contradiction questions the mainstream framework put forward in "Fora" like Davos, G7, WB, FMI, etc..



(Ferraz de Abreu, 2001)
"Towards a new framework for citizen mobility within modern democracy",
 CICSUG - INAH
 8-9 March 2001,
 Guanajuato, Mexico

5 Dec. 2003

Globalization Component	1960		2000	
	Mobility	Restrictions	Mobility	Restrictions
Finance	Days -> Hours	Moderate	(++) Seconds	(--) Low
Economy	Years	High -> Moderate	(+) Months	(-) Moderate -> Low
War	Years	Bi-polar world	(+) Months -> Days	(-) Hegemonic Alliance
Citizen (internal)	Year -> Months	Low	(=) Year -> Months	(=) Low
Refugee	Years -> Months	High	(=) Years -> Months	(=) High
Economic Migrant	Years	High	(=) Years	(+) Very High -> High (Regional)



**Is the “Washington Consensus”
promoting Globalization, or
desperately fighting it, trying to
distort natural trends in order to
force a certain “Globalization
model” that preserves current
power structure ?**



1- Washington consensus a flop?

- **Poor-rich gap is widening**
- **Link between ICT and HDI , HPI**
- **Neo-liberal + neo-conservative policy flop**
- **The big myth : “free” market ?**
- **G8 fighting globalization?**
- **New policies?**



Mainstream Policy

Fixate population in LDC through Development Aid Programs

Trickle Down Economics: salary gap as "economy incentive"

Training on specialized skills for migrants; Hierarchy in Education (professional vs. academic degrees, in separate tracks)

Strong state on military and police, weak state on regulation and public service (Regional "Fortresses" on repression of illegal migrants; information infrastructure in the hands of multi-nationals)

Hierarchy of rights with migrants on bottom of citizenship

LDC - Less Developed Countries



Alternative Policy ?

Accept Citizen mobility as part of modern Globalization.

Labor rights worldwide; end the low-wage "offshore" paradises

Global Education massive drive to raise minimum levels of knowledge and increase adaptability (including Bilingual Education); Mobility between professional and academic degrees

State strong responsibility on public services and regulation; provide universal access to information infrastructure

Local Democratic integration of all citizens, including migrants (representative and participatory rights)



Poverty, globalization and growth: perspectives on some of the statistical links

Several recent econometric studies have tried to show a systematic relationship between globalization and growth—and between growth and poverty reduction. The message of these studies is clear: open your economy, liberalize and you will grow, and as you grow, poverty will be reduced. This research is supposed to lay to rest the attacks on globalization and, though it shuns the words, breathe new life into long-discredited trickle-down economics, which held that “a rising tide lifts all boats”.

Trickle-down economics became discredited for an obvious reason: it was not true. Sometimes growth helps poor people, but sometimes it does not. By some measures poverty increased in Latin America in the 1990s, even in many countries where there was growth. It was not just that well-off people gained disproportionately from growth: some of their gains may even have been at the expense of poor people.

Though there are a number of technical problems with these recent studies, the most telling problem is that they asked the wrong question: globalization and growth are endogenous, the result of particular policies. The debate is not about whether growth is good or bad, but whether certain policies—including policies that may lead to closer global integration—

its high-growth days of the early 1990s effectively imposed a tax on short-term capital inflows.

The policy issue is not “to globalize or not to globalize” or “to grow or not to grow”. In some cases it is not even “to liberalize or not to liberalize”. Instead the issues are: To liberalize short-term capital accounts—and if so, how? At what pace to liberalize trade, and what policies should accompany it? Are there pro-poor growth strategies that do more to reduce poverty as they promote growth? And are there growth strategies that increase poverty as they promote growth—strategies that should be shunned?

For instance, neither theory nor evidence supports the view that opening markets to short-term, speculative capital flows increases economic growth. But there is considerable evidence and theory that it increases economic instability, and that economic instability contributes to insecurity and poverty. So, such forms of capital market liberalization might in some ways increase “globalization”. But they do not enhance growth—and even if growth increased slightly, this form of it might increase poverty, especially in countries without adequate social safety nets.

Similarly, trade liberalization is supposed to allow resources to move from low-productivity protected sectors to high-productivity export

groups, which allows countries to tap into vast reservoirs of underused talent. But the returns to investments in preschool education today will not manifest themselves for two decades or more—not the kind of results that show up in typical econometric studies.

Hidden beneath the surface in these econometric studies of globalization is another subtext: because globalization has proven so good for growth and poverty reduction, critics of globalization must be wrong. But these cross-sectional studies cannot address the most fundamental criticisms of globalization as it has been practiced: that it is unfair and that its benefits have disproportionately gone to rich people. After the last round of trade negotiations, the Uruguay Round, a World Bank study showed that Sub-Saharan Africa was actually worse off. Asymmetric liberalization had global terms of trade effects. The globalization studies suggest that Africa has suffered because it has not globalized. That may be partly true. But it is also true that Africa has suffered from the way that globalization has been managed.

Thus these econometric studies on globalization, growth and poverty have been a misleading distraction, shifting the debate away from where it should be—on the appropriate-



that well-off people gained disproportionately from growth: some of their gains may even have been at the expense of poor people.

Though there are a number of technical problems with these recent studies, the most telling problem is that they asked the wrong question: globalization and growth are endogenous, the result of particular policies. The debate is not about whether growth is good or bad, but whether certain policies—including policies that may lead to closer global integration—lead to growth; and whether those policies lead to the kind of growth that improves the welfare of poor people. A look at the most successful countries, in growth and poverty reduction, shows how misleading these studies are.

China and other East Asian countries have not followed the Washington consensus. They were slow to remove tariff barriers, and China still has not fully liberalized its capital account. Though the countries of East Asia “globalized”, they used industrial and trade policies to promote exports and global technology transfers, against the advice of the international economic institutions. Perhaps most important, unlike the Washington consensus, policies promoting equity were an explicit part of their development strategies. So too for perhaps the most successful country in Latin America, Chile, which during

and theory that it increases economic instability, and that economic instability contributes to insecurity and poverty. So, such forms of capital market liberalization might in some ways increase “globalization”. But they do not enhance growth—and even if growth increased slightly, this form of it might increase poverty, especially in countries without adequate social safety nets.

Similarly, trade liberalization is supposed to allow resources to move from low-productivity protected sectors to high-productivity export sectors. But what if export markets in areas of comparative advantage (such as agriculture) are effectively closed, or credit is not available (or available only at exorbitant interest rates) to create the new export-related jobs? Then workers simply move from low-productivity protected sector jobs to unemployment. Growth is not enhanced, and poverty is increased.

Even often-praised measures, such as tariffification, have proven to be double-edged swords, because they have exposed developing countries to additional risks that they are ill prepared to cope with. Again, whether tariffification leads to faster growth is not clear; that the increased variability increases poverty is far more evident.

There are policies that in the long run may enhance growth and reduce poverty, such as enhancing education opportunities for disadvantaged

Africa was actually worse off. Asymmetric liberalization had global terms of trade effects. The globalization studies suggest that Africa has suffered because it has not globalized. That may be partly true. But it is also true that Africa has suffered from the way that globalization has been managed.

Thus these econometric studies on globalization, growth and poverty have been a misleading distraction, shifting the debate away from where it should be—on the appropriateness of particular policies for particular countries, on how globalization can be shaped (including the rules of the game) and on international economic institutions, to better promote growth and reduce poverty in the developing world. The antiglobalization movement has often been charged with being unthinking in simply asking whether globalization is good or bad. But the econometric studies, for all the seeming sophistication of their statistics, are equally guilty.

Joseph E. Stiglitz
Nobel Laureate in Economics, 2002



2- Recent ICT developments, a qualitative jump?



2-Recent ICT is a qualitative jump

- **The nature of Information Technology**
- **The nature of last generation ICT developments**
- **Decision models and the *enabling* function of ICT developments**



ICT QUALITATIVE JUMP:

1. The Nature of Information Technology

- Thermodynamics and information theory (negative entropy)
($I = \log_2 1/P$; $S = K \log_e P$; $K \rightarrow$ Ct. Boltzman)
- Engine efficiency gains (heat transfer and feedback, Watt system)
- Extension of brain vs. extension of muscle

2. The nature of last generation ICT developments

- Organizational modes (ex. mainframe vs. microcomputer)
- Production modes (ex. milk vs. learning curve and market; "hardware" goods vs. duplication of software)



3. Decision models and the enabling factor of ICT developments

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

(Plato, according to Wriston)

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

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

gnwrizein allhlou" dhlon toinun w" outo" esti polew" oro" aristo"
h megisth tou plhqou" uperbolh pro" autarkeian zwh"
eusunopto"

(Aristotle, Polit., VII, iv.7-v.1)

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

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)



3. Decision models and the enabling factor of ICT developments

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	<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 	
μcomputer	<ul style="list-style-type: none"> • moderate access cost, potentially universal (low cost to enter the market) 	Technocrat Dictatorships
Internet	<ul style="list-style-type: none"> • high control / regulatory costs 	



4 - ICT as a challenge to institutional and regulatory framework



CASE STUDY:

EIA for Incinerator for Solid Urban Waste, S. João da Talha, Portugal

EXPO'98 LISBOA - SITE (Before)



Municipalities with VALORSUL



Problems in EIA and Role of Information Technologies:

1. Transmitting and accumulating experience

- Metadata
- Multimedia Knowledge Base
- Expert Systems
- Rule-based models
- Case-based models, with FAQ ("Frequently Asked Questions")

2. Integrating multi-disciplinary and multi-organism processes

- Virtual office
- Multiple-domain Knowledge Representation
- Shared inference engine

3. Satisfying a wide range of audiences

- Hypermedia reports
- Multi-level information trails

4. Limitations of current "Fora" for dialog and interactive analysis

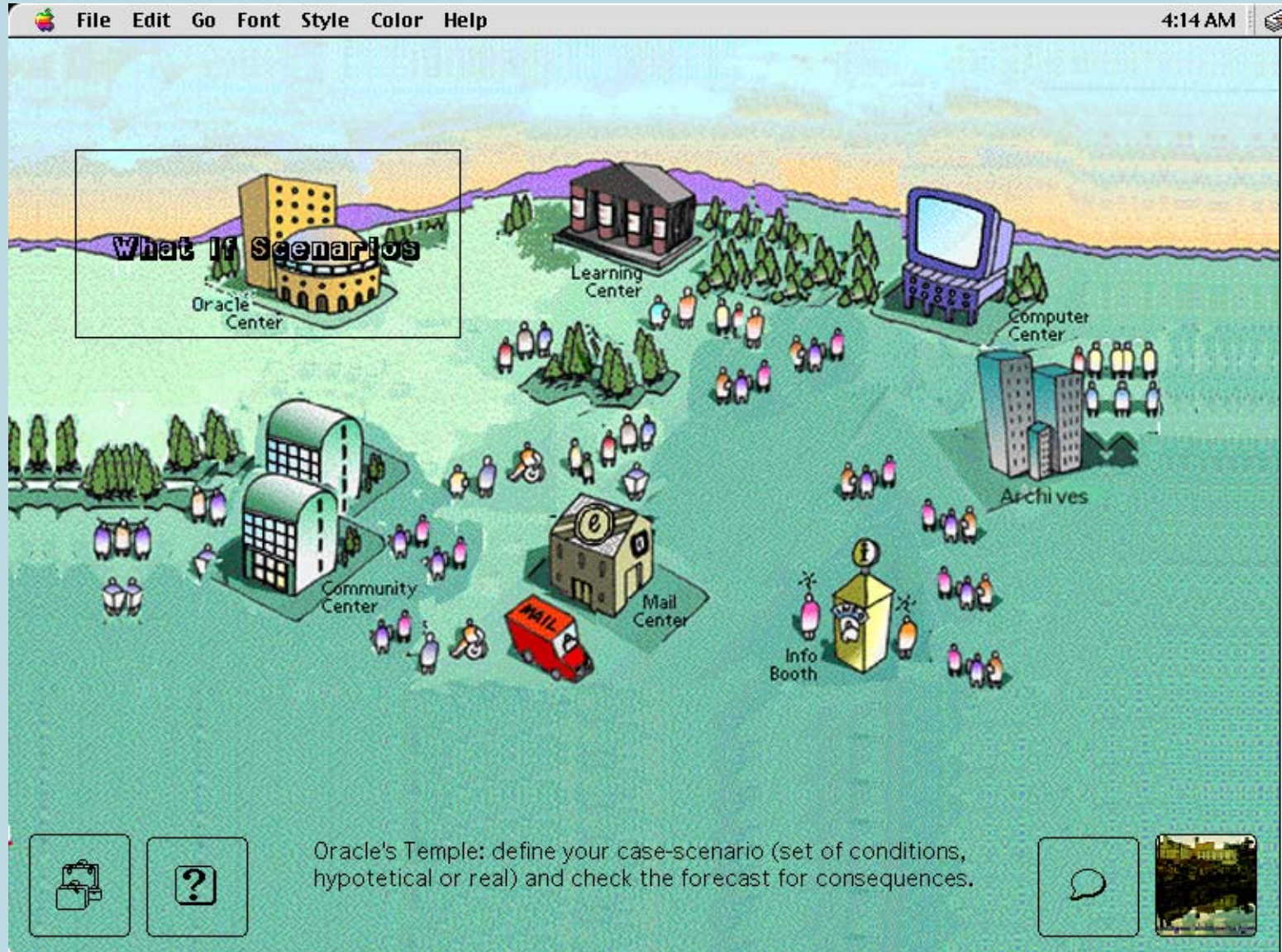
- "Blackboard" vs. "Star" process
- Network (WWW) based tools

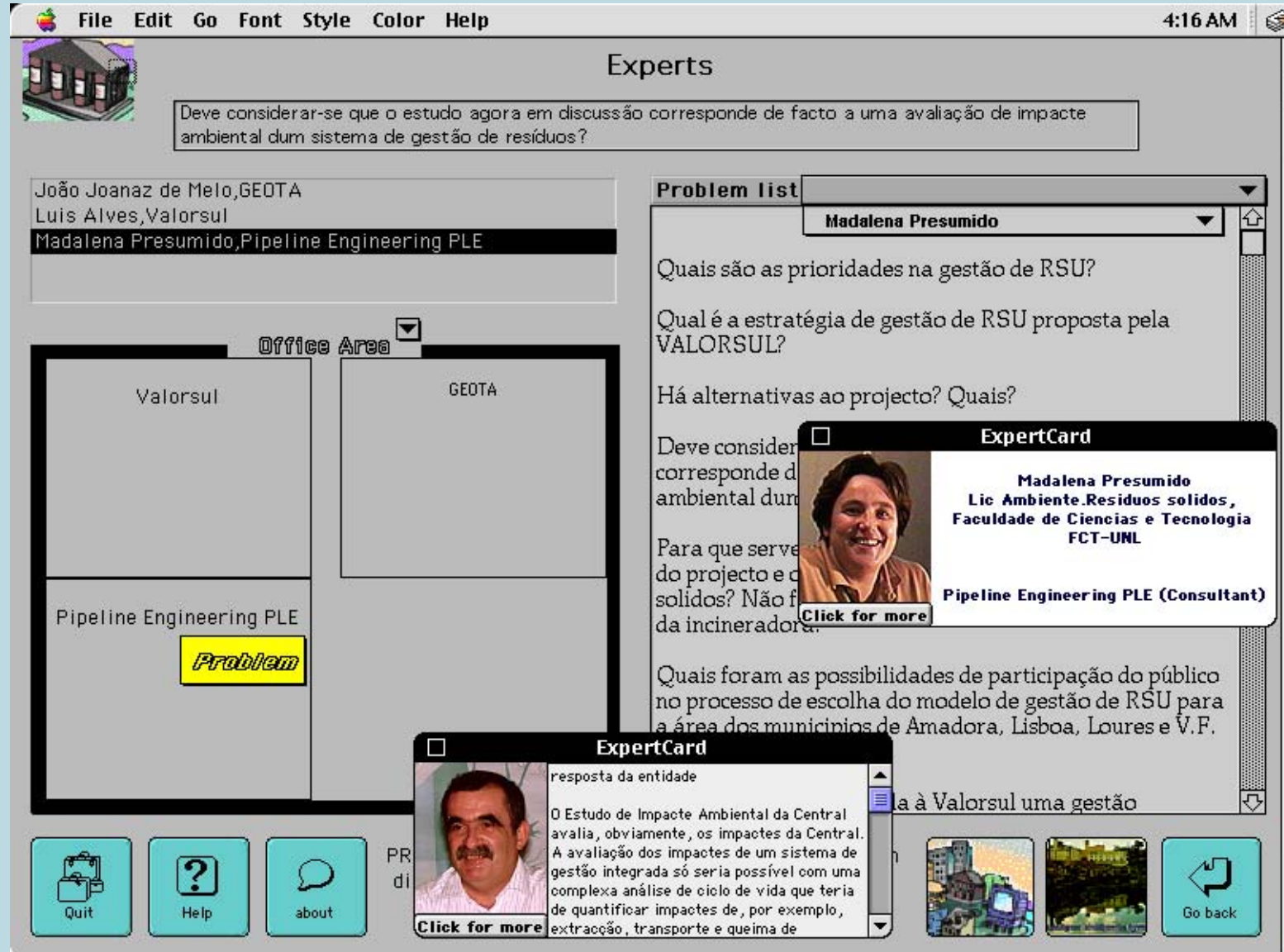


Table 3.3.5.1.-1 - Knowledge Representation Models

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









File Edit Go Tools Objects Font Style Color Help 10:30 PM

Experts

O que é a triagem de RSU?

Ana Teresa Chinita, Sociedade de Engenharia e Inovacao Ambiental

Office Area

Sociedade de Engenharia e Inovacao Ambiental SEIA

Problem

ExpertCard

opinião pessoal

A triagem dos RSU é a separação, manual ou por meios automáticos, de determinadas fracções dos RSU que podem ser aproveitadas, normalmente para reciclagem. A triagem pode ser feita nos resíduos indiferenciados ou em fracções dos RSU que tenham sido recolhidas

Click for more

A14

Answer in...

close answer

Comments

Texts	Diaries
Videos	Photos
Sounds	Graphs
Maps	Trails

3 of 3

Estacao de triagem de
Estacao de triagem de

launch

estacao triagem

Quit Help about

Go back



File Edit Go Tools Objects Font Style Color Help 2:50 AM

Archives

Videos

- dk3 improve bottom ash
- dk3 incineration control
- dk3 incineration overview
- dk3 reutilizing bottom ash
- dk3 scrap iron
- dk3 sort at source
- dk3 uncombusted waste
- DP tendencia UE RSU vd
- en plant
- fatal shot
- Ferraz pub part ass munic
- FN RSU area valorsul vd
- harbour_July
- HstA
- Htraffic
- Hurricane Guillermo STS 43
- Impact A on Jupiter
- IMSTour
- Industry Combo
- JJ O estudo corresponde vd
- JJ O geota favor contra vd
- JJ O que são ONGs vd
- JJ Para que serve vd

Quit Help about

To kill a renitent video
'opt
To resize video win
(apple) key down for a few seconds.

Go back



File Edit Go Tools Objects Font Style Color Help 2:29 AM

What If Scenarios

call IMS Rules

Ask Oracle

conditions **context**

- Analysis-scope IS Local
- Analysis-scope IS Regional
- Analysis-time-frame IS Future
- Date IS-BETWEEN 1991-1995
- Distance-from-local-to-target-spot IS-BETWEEN 0-50-miles
- Estimated-local-economic-growth-rate IS Increased
- Estimated-local-population-growth-rate IS Decreased
- Estimated-local-population-growth-rate IS Increased
- Growth IS Contiguous
- Industry-density IS High
- Local IS Cairo
- Local IS Metropolitan
- Local IS-NOT Metropolitan
- Local-population-growth-rate IS [Variable1]
- Local-population-growth-rate IS Decreased
- Local-population-growth-rate IS High
- Local-population-growth-rate IS Increased
- Population-density IS High
- Public-health IS Bad
- Region HAS Cold-season
- Region IS Cairo
- Region IS Major-metropolitan
- Region IS Metropolitan
- Region IS North-Africa

chosen scenario **sort scenario** **clear scenario**

- Analysis-scope IS Regional
- Analysis-time-frame IS Future
- Industry-density IS High
- Population-density IS High
- Region IS Metropolitan
- Productivity IS Low
- Water-supply IS Polluted
- Housing-standard IS Low
- Heating IS Wood-Stove
- Gas-Supply IS Low

oracle inferences **get line info** **clear inferences**

- Electricity-demand IS High
- Sewer-demand IS High
- Water-demand IS High
- Water-rehabilitation IS Urgent
- Pollution-indoor IS High
- Public-health IS Bad
- Public-health IS Expensive**
- Estimated-local-economic-growth-rate IS Decreased
- Local-economic-growth-rate IS-PROBABLY Decreased
- Salary-level IS-PROBABLY Low
- Individual-decision IS Stay ?

Quit Help about

Go back



Knowledge Test

File Edit Go Tools Objects Font Style Color Help 11:49 PM

pseudo: Natassija ? nome: Natassija 6 of 57

1. area: Psicologia ? contacto: opcional: escreva aqui a sua morada e/ou email seu telefone ?

sair info novo a ☐ antes de usar o sistema ? ☐ depois de usar o sistema ? reset Registrar

2. Esta questão da incineradora de S. João da Talha é pessoalmente para si: ? muito importante

☒ muito importante ☐ assim-assim importante ☐ nada importante

3. Identifique a(s) medida(s) que a Valorsul propõe: ? 1 incineração, 3 reciclagem, 2 aterros

☐ não sei ☐ para resposta à pergunta 3 ☒ para resposta à pergunta 4

☒ reciclagem ☒ redução ☐ compactação ☒ reutilização ☐ aterros ☐ incineração ☒ compostagem

= = = =

4. Identifique a(s) medida(s) que as A.D. Ambiente propõem: ? = reciclagem, = redução, = reutilização, = compostagem

5. O parecer do Min. Ambiente sobre o EIA é vinculativo para a decisão do Governo? ? não sei

☐ sim ☐ não ☒ não sei

6. Identifique para cada solução a sua melhor vantagem e pior desvantagem: ?

Solução	vantagem	desvantagem
Compostagem:	qualidade do solo	não sei
Incineração:	energia	qualidade do ar
Redução, Reciclagem, Reutilização:	energia	não sei



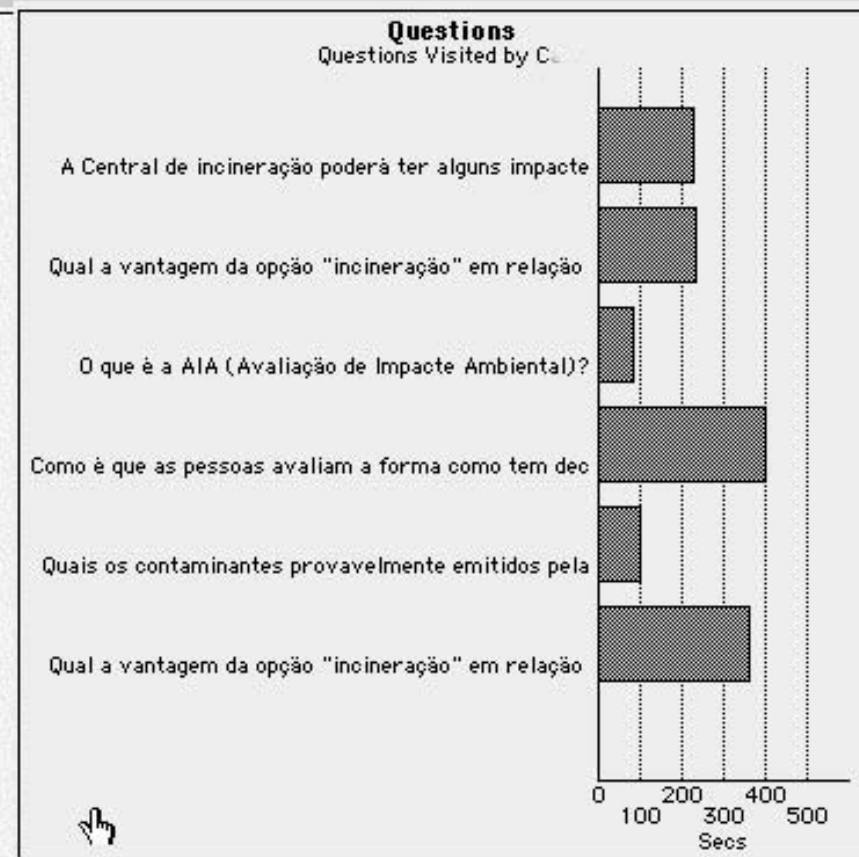
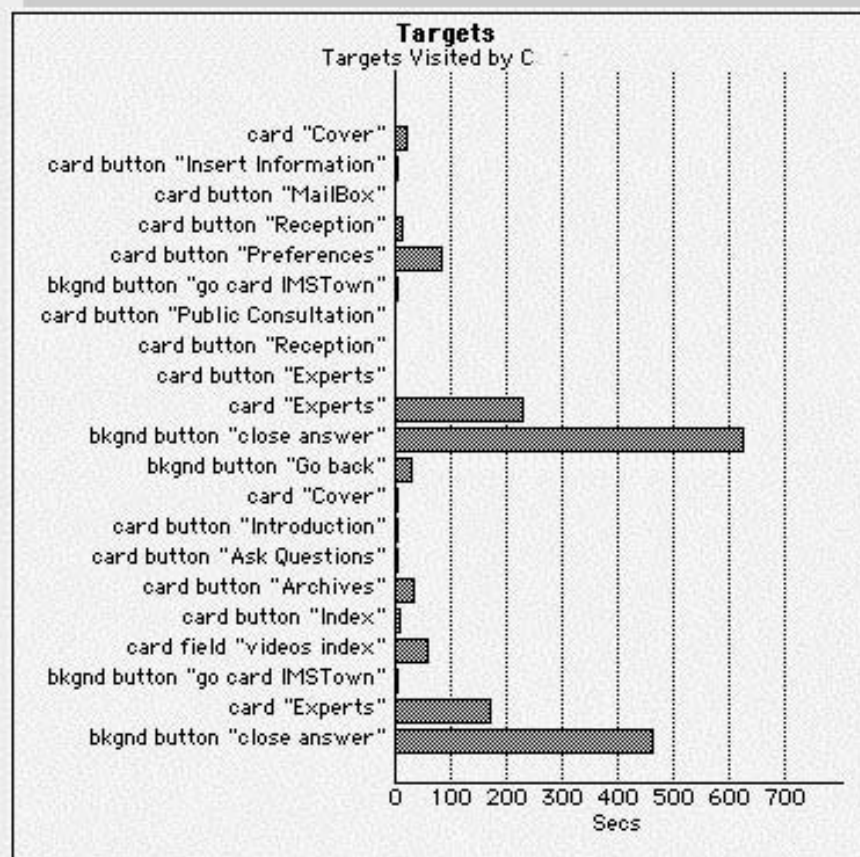
Table 5.13.4.-1 - Knowledge Test grade results

	Environmental students Average grade	Psychology students Average grade	GRADE GAP Environmental - Psychology
Before using IMS	39.2	28.2	11
After using IMS	43.7	35.7	8
GRADE JUMP	4.5	7.5	

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



TRACE FUNCTION:



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



PLANNING PARADIGMS:

- **"Pragmatic" Planning**
- **"Rational" Planning**
- **"Hierarchical" Planning**



Findings on ICT

- **Knowledge Base + Multimedia Data Base WORKS**
- **FAQ model VALIDATED (need dual taxonomy)**
- **"Virtual Office" SATISFIED EXPECTATIONS**
- **IMS contributed to reduce KNOWLEDGE GAP**
- **IMS did not induce "opinion bias"**
- **No conclusive data on Internet (email) use**
- **Web "memory" attribute (long term effect vs. short term TV)**



Findings on Institutional response

- **Difficulty to access EIA in time for new IT use**
- **Difficulty to access EIA data in digital form**
- **Non-technical summary put in question (expert vs. lay)**
- **Concerns against actor's "co-existence" in "Virtual Office"**
- **FAQ dominance bias: the motivations vs. the power of resources**
- **Difficulty to integrate "Network" IT (email) in public administration**



5 - Knowledge is the core

The role of expertise .. And of the expert

The new capital and new laws of capital reproduction

Translating expert's framework to and from common people's

The process is important, but so is content



Public Participation Review:

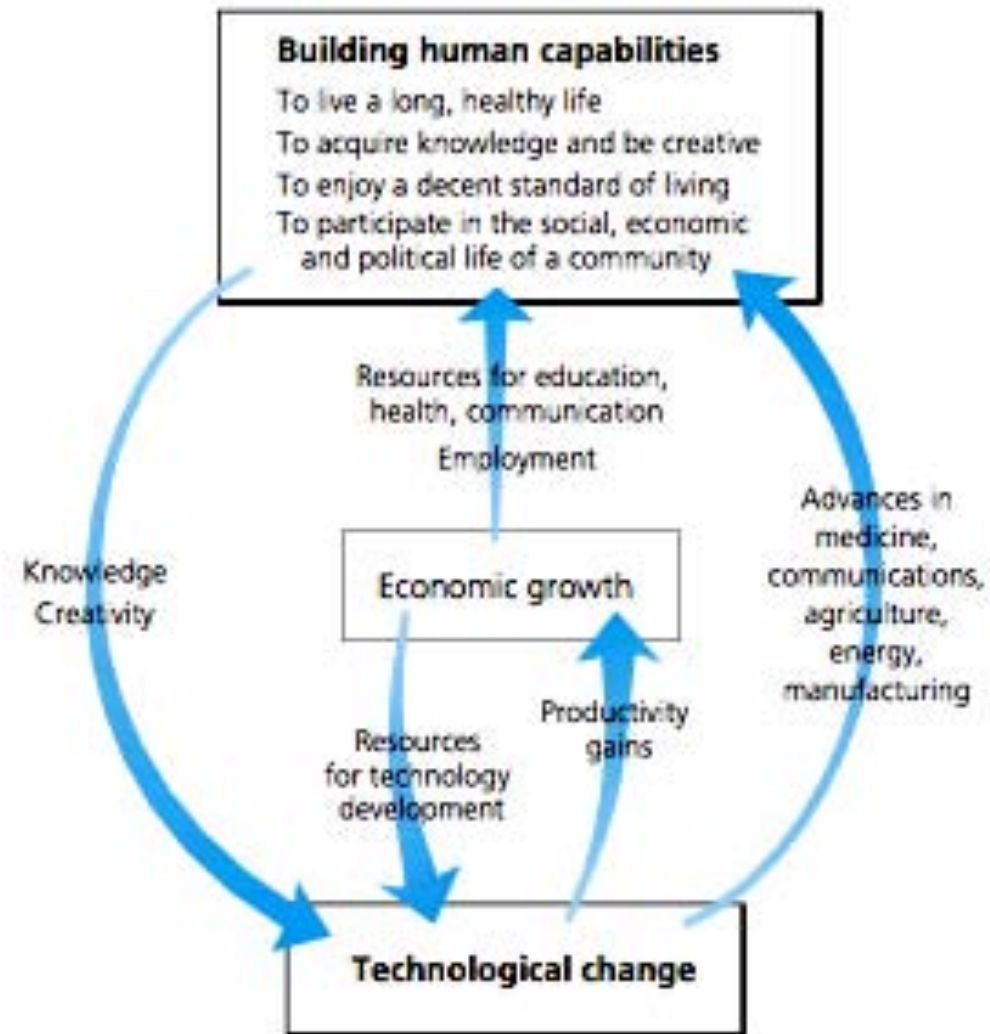
- **Selznick** (administrative vs. substantive)
- **Vlachos** (awareness, involvement, participation)
- **Glass** (information exchange, education, support building, decision-making supplement, representational input)
- **Frankena, Kennard** (role of the expert)
- **Costs of no participation**
- **ELITIST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



HDR 2001

FIGURE 2.1

Links between technology and human development





e-Planning and new thinking

- On new policies “ICT-aware”
- On institutional and regulatory reform
- On ICT development strategies
- On ICT as tool to build “knowledge capacity”
- On the use of ICT to empower citizens



e-Planning Research Agenda?

- Analytical Methods and Urban Models
- Knowledge Representation and Information Management
- Institutional and Regulatory Implications of Information and Communication Technologies
- Development Policies for and with Information and Communication Technologies



Communication takes more than
having a voice

What if nobody is listening?



What do they think, nowadays' poets from Andalucia
What do they feel, nowadays' poets from Andalucia
What do they speak about, nowadays' poets from
Andalucia

They think, but when they think it seems they are alone
They feel, but when they feel it seems they are alone
They speak, but when they speak it seems as they are
alone

Isn't there anything that someone can do, together with
nowadays' poets of Andalucia ?

FGL