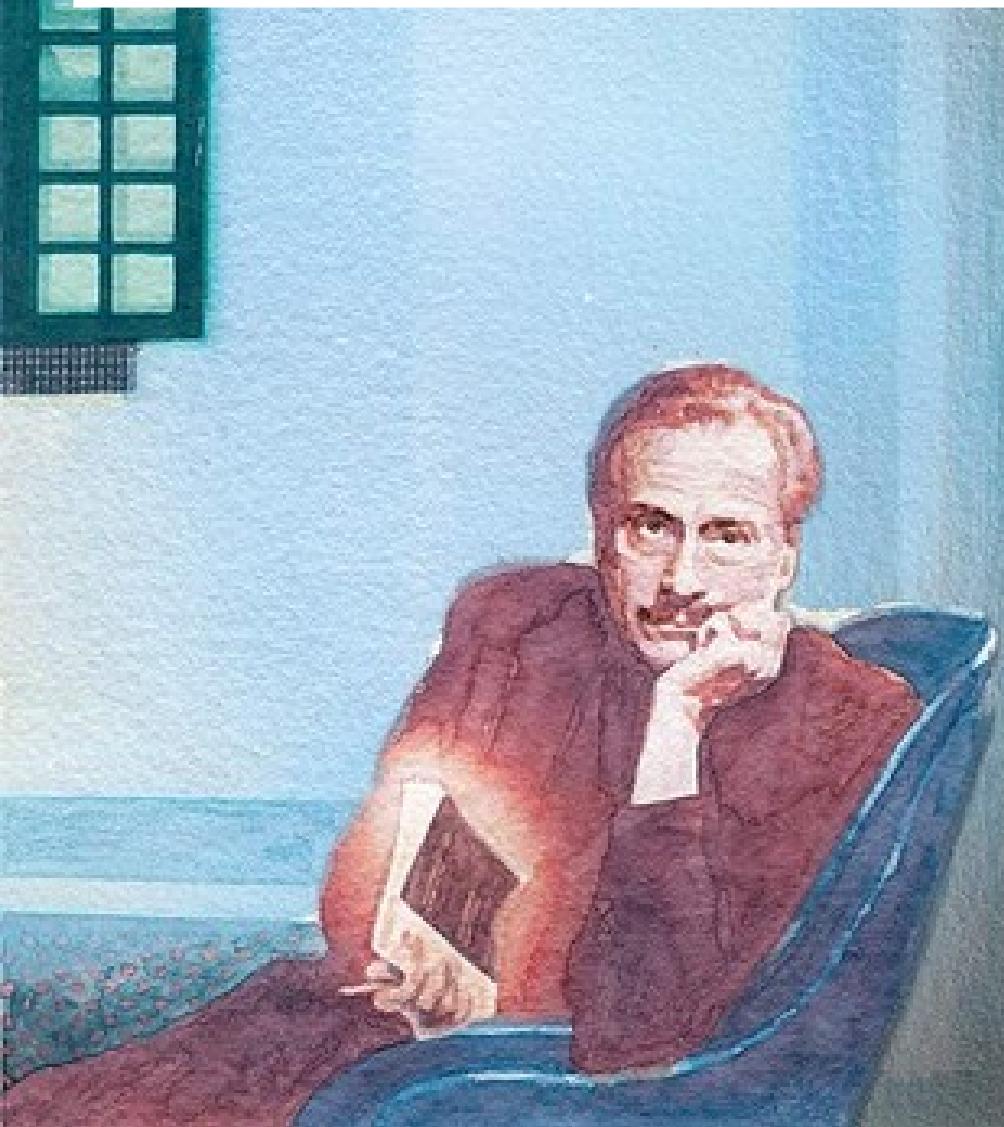


Informationssamfundet & The Digital Divide



Problemet: a growing gap

- The Digital Divide
 - Et nyt strukturelt "gap" opstår i 1990erne
 - Sammenfald mellem økonomisk og teknologisk **polarisering**

Information tools, such as the personal computer and the Internet, are **increasingly critical** to economic success and personal advancement. *Falling Through the Net: Defining the Digital Divide* finds that more Americans than ever have access to telephones, computers, and the Internet. At the same time, however, NTIA has found that **there is still a significant "digital divide" separating American information "haves" and "have nots."**

Indeed, in many instances, the digital divide has **widened** in the last year.

(NTIA, 1999, p. xiii)



Dagsorden

- Slides stjålet fra 1. gang (tek-transfer.pdf)
- **Gunkel:** kritisk støtte
- **Miranda:** determinisme skjuler neoliberalisme
- **Barbrook:** vi gentager fortiden (med vold og krige)

Myter og gammel vin i nye flasker
(siger de)





[W]e must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of **underdeveloped** areas ...
Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas. **For the first time in history**, humanity possesses the knowledge and the skill to relieve the suffering of these people

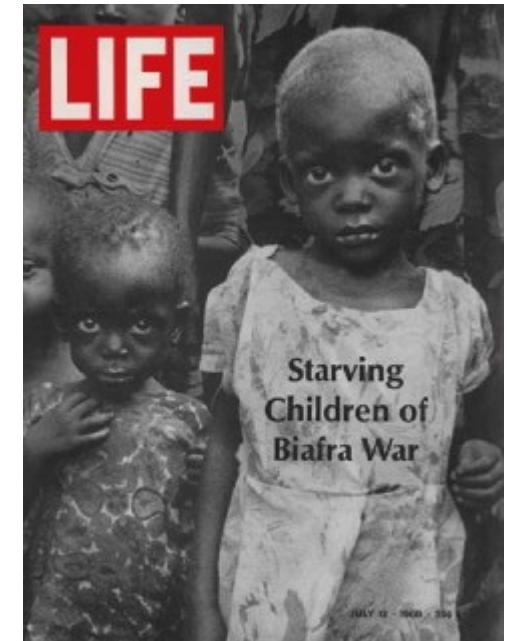
(Truman, 1949)

Marshall planen

Two years after the war Stuttgart's inner city still reflected the destruction of urban centers during wartime bombing.

1947 1955

Marshall Plan funds helped provide for the rebuilding of cities. Photos on these two pages were taken from the same spot.



"the most massive technology transfer in history" (Seely: 11)



The Development Decade

- FN udråber 1960'erne til Development Decade
 - Formål: “A redirection of science and technology to attack the problems of developing countries” (Jolly et al., 2004, p. 89)

It didn't occur to us in the beginning of the 1960s, that any of us should reach the other side of Silver Jubilee working in Danish development. We really thought that the development decade [...] would bring **so many transfers and spark so many initiatives that growth would follow and extreme poverty would be eradicated.**

(Christian Kelm-Hansen quoted in Villadsen & Heldgaard, 2012 - my translation)



At bygge bro

- **Udfordringen** (som formuleret i 1960erne): A growing gap in
 - economic capacity / poverty
 - science and technology
- **Løsning**: Redirecting techno-science - bridging the gap with technology transfer
 - Teknologi som drivkraft for udvikling og fremskridt



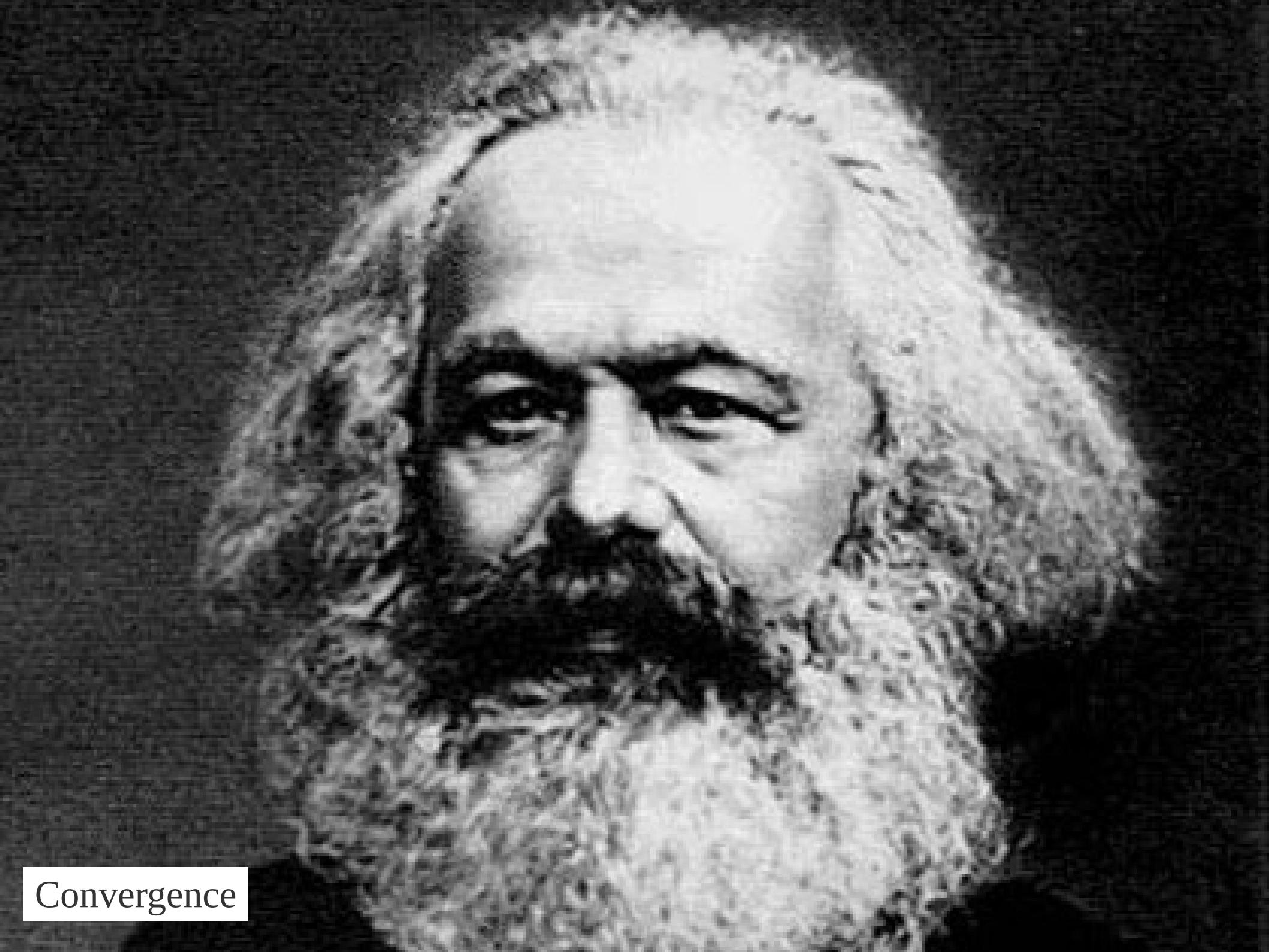


Strømninger gennem TT

Og Digital Divide debat!

- **Convergence // Modernisation**
 - Vi ender det samme sted
 - Link til oplæg om **determinisme** og **modernitet**
- **Dependency // Centre-Periphery**
 - Dynamiske netværksstrukturer skaber ulighed
- **Empowerment**
 - Oplæg om **skoler, uddannelse og kritisk tænkning**
 - Næste uge, hvad er magt og mod-magt (og hvad med teknologien)





Convergence

W.W. ROSTOW

The stages of economic growth

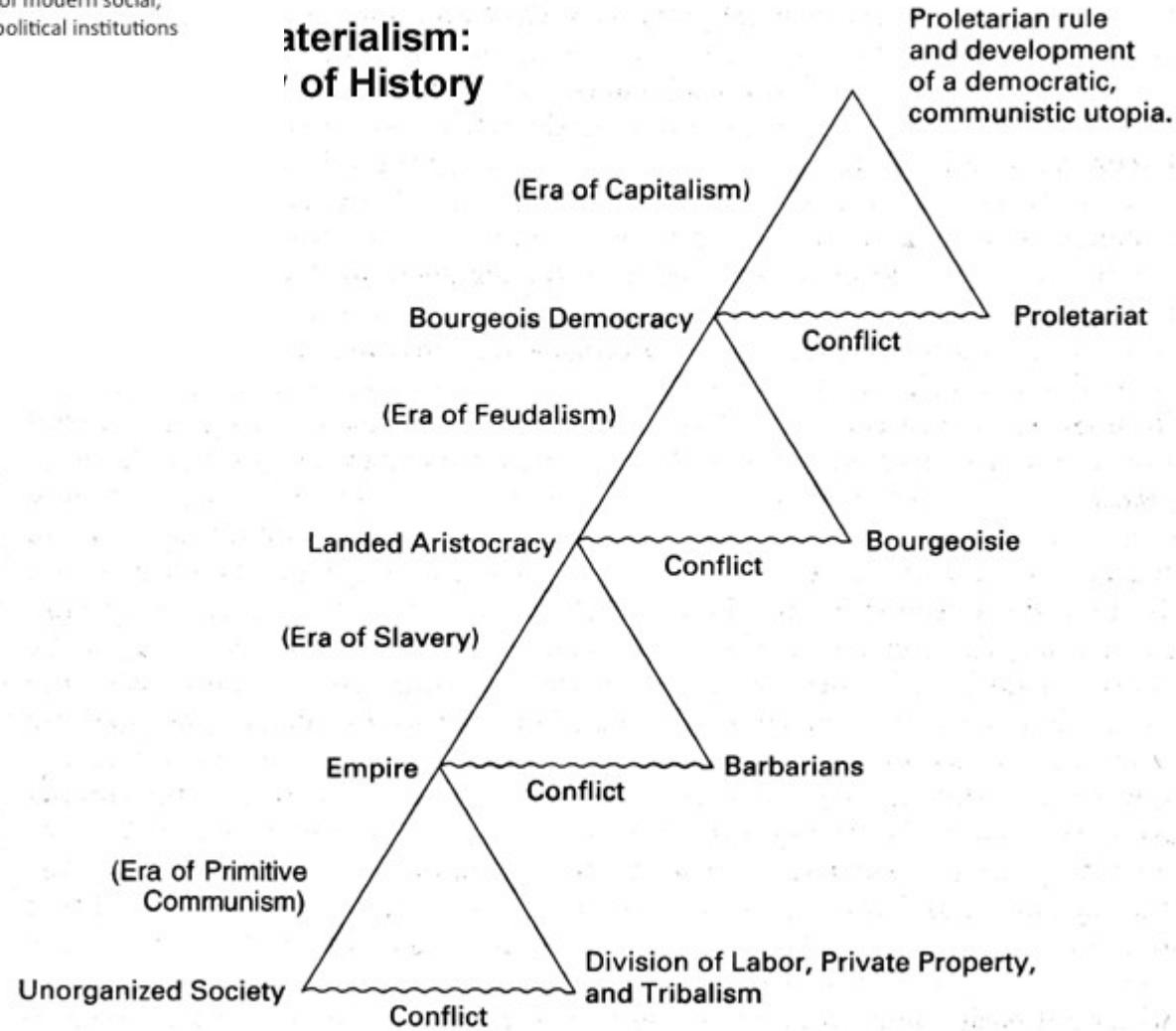
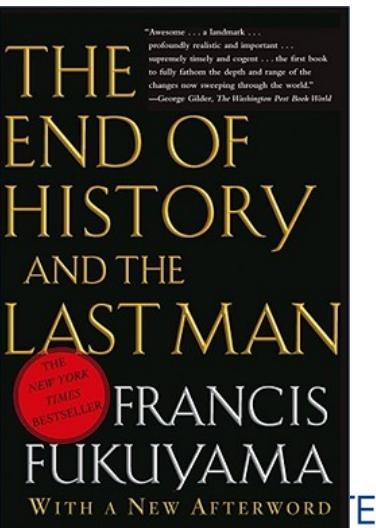
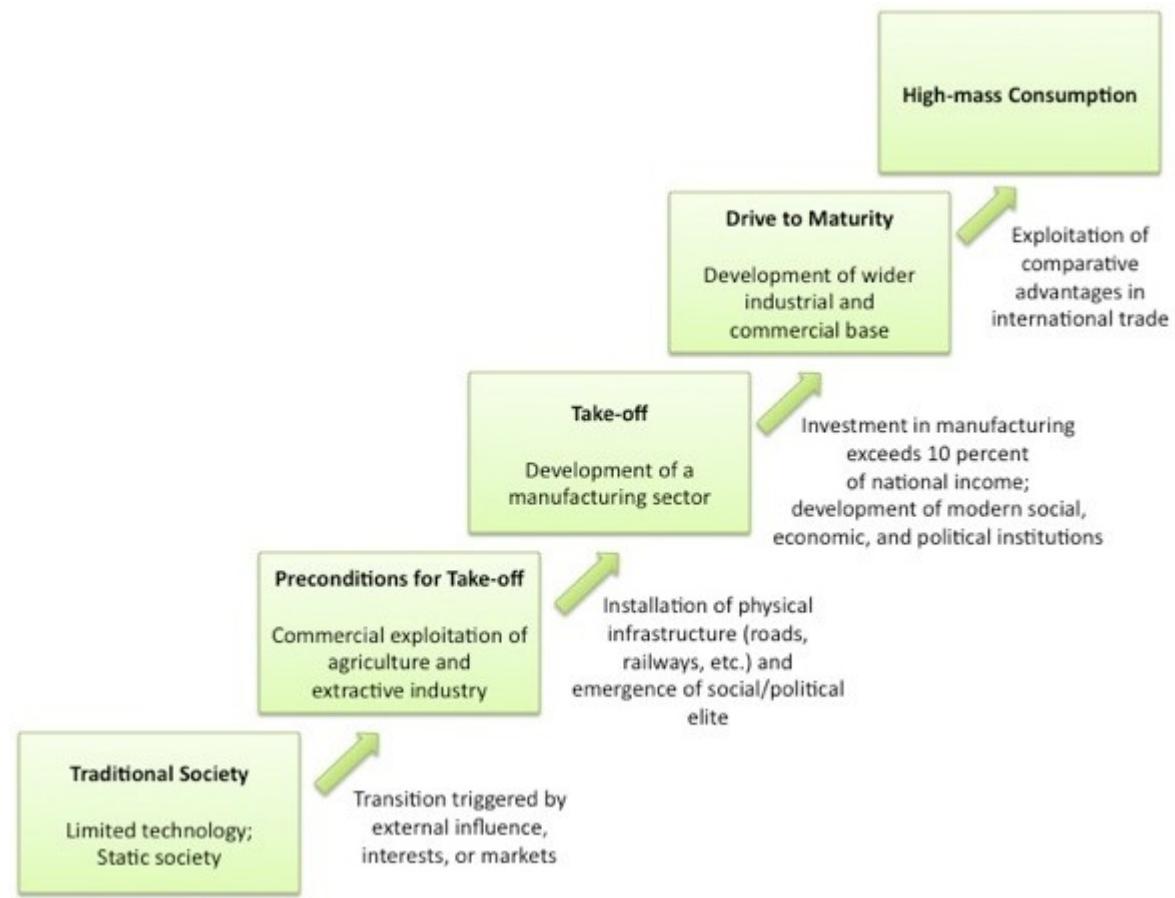
A non-communist
manifesto

Third edition

Convergence & Modernisation



Dengang: Post-industrielle forbrugssamfund Nu: Post-industrielle informationssamfund



Convergence // Modernisation

- Både vesten og USSR koblede teknologi med **historisk** fremskridt
 - Convergence: Udvikling(en) leder samme sted hen
 - Modernisation: Overførsel af teknologi + indførsel af reformer for at komme til næste "trin"

During the take-off new industries expand rapidly, yielding profits a large proportion of which are reinvested in new plants, and these new industries, in turn, stimulate, through their rapidly expanding requirement for factory workers, the services to support them, and for other manufactured goods, a further expansion in urban areas and in other modern industrial plants.

(Rostow, 1990, p. 8)

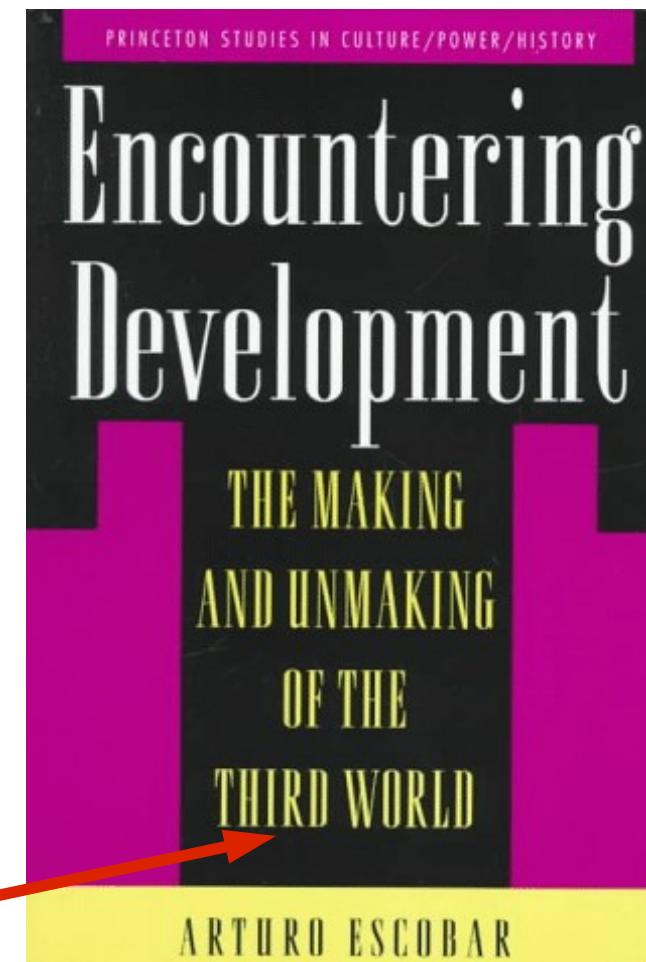


Convergence // Modernisation

- Modernisation theory er sidenhen blevet stærkt kritiseret – især for dets teknologisyn

Technology, it was believed, would not only amplify material progress, it would also confer upon it a sense of direction and significance. In the vast literature on the sociology of modernization, **technology was theorized as a sort of moral force that would operate by creating an ethics of innovation, yield, and result.**

(Escobar, 1995, p. 36)



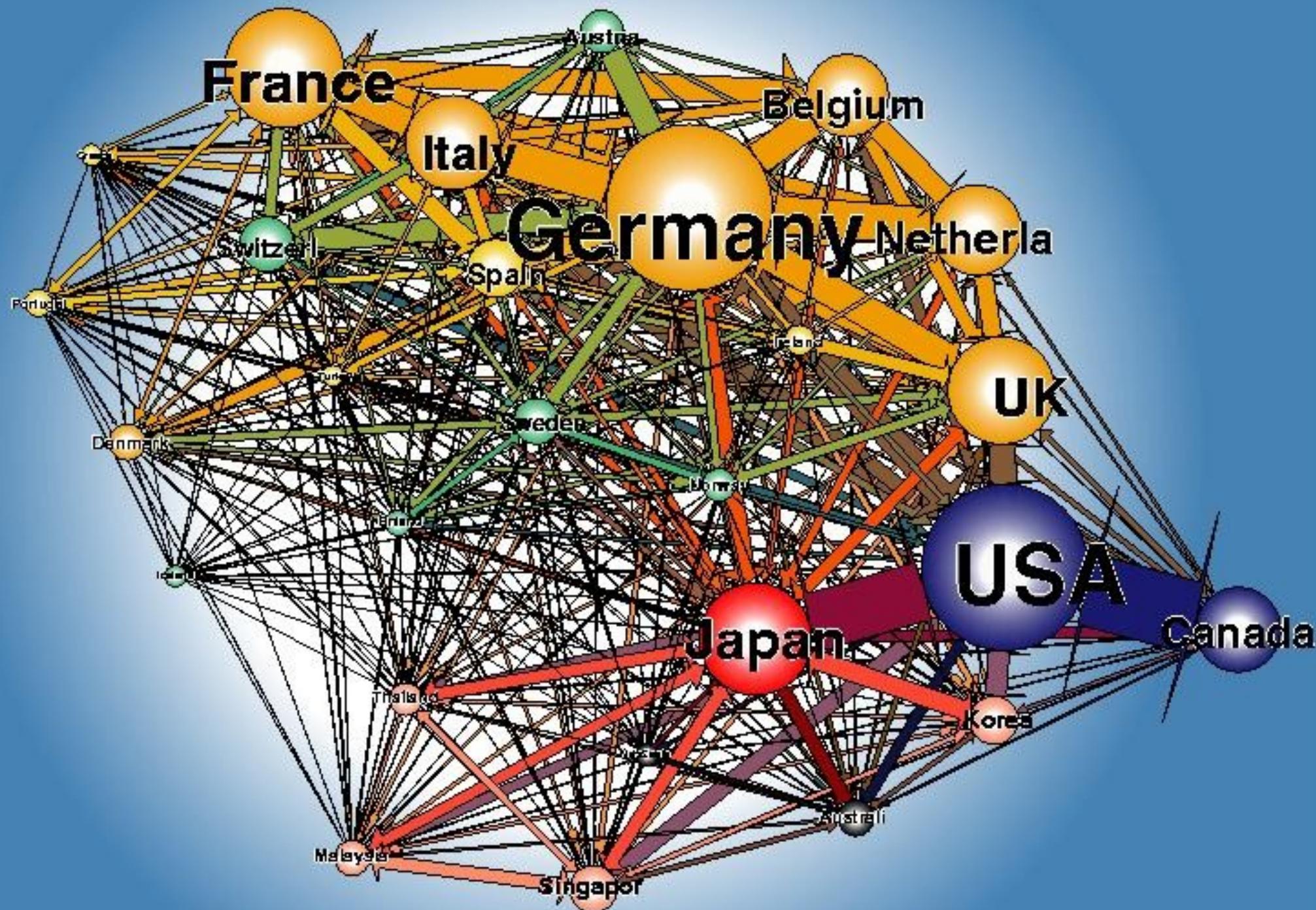
Arturo Escobar

- Udvikling er et undertrykkende foucauldiansk apparatus / dispositif
- Udvikling som convergence-apparatus er dogmatisk og undertrykkende
- Vi skal have alternativer *til* udvikling
 - Ikke alternativ udvikling



What these [social movements] offer is an opportunity to study how actors at the micro are engaged in “**adapting, resisting, transforming or subverting**” macro processes of domination which ultimately can leverage “**alternative ways of organizing societies and economies, of satisfying needs, of healing and living**”

(Escobar, 1992, pp. 30 & 48)



Network capitalism (Core-Periphery)

Dependency // Centre-Periphery

- Kritik af modernisation og convergence
 - Imperialisme
 - Technology transfer er indvævet i **afhængighedsforhold**
- Udryttelse forskydes rundt i dynamiske netværk

Skrevet i 1970erne – informations kapitalisme

...a system of imperialism mediated by instant communication connecting different centres through links that “form and dissolve in rapid succession, changing scope and domain, highly adjustable to external circumstance”

(Galtung: 95)



Dependency // Centre-Periphery



Galtung:
Hvilken relation medierer en traktor?



Dependency // Centre-Periphery

- Centre-Centre (e.g. eliten i USA)
- Periphery-Centre (e.g. eliten I Kina)
- Centre-Periphery (e.g. US arbejdere)
- Periphery-Periphery (e.g. kinesiske arbejdere)
- De to førstnævnte har fælles interesser
- De to sidstnævnte taber – Især Periphery-Periphery



Der sker et "knaæk" i 1970erne

- Reorientering mod technology transfer internt i lande
 - klyngedannelse a la Porter og Katrinebjerg
 - "less ideological and more economic" (Seely: 22)
- Alternative tilgange I udvikling
 - Needs, culture, values... of recipients!
- Basic Needs
- Community building
- Paulo Freire er en inspiration



Hov, der kom de igen

endlessorigami.com

BASIC NEEDS FOR SURVIVAL



- FOOD
- WATER
- SHELTER
- CLOTHING



- INTERNET
- FOOD, SHELTER, WATER (OPTIONAL)





While the politicians struggle with the baggage of history, a new generation is emerging from the digital landscape free of many of the old prejudices. These kids are released from the limitation of geographic proximity as the sole basis of friendship, collaboration, play, and neighborhood.

(Negroponte, 1996, p. 230)

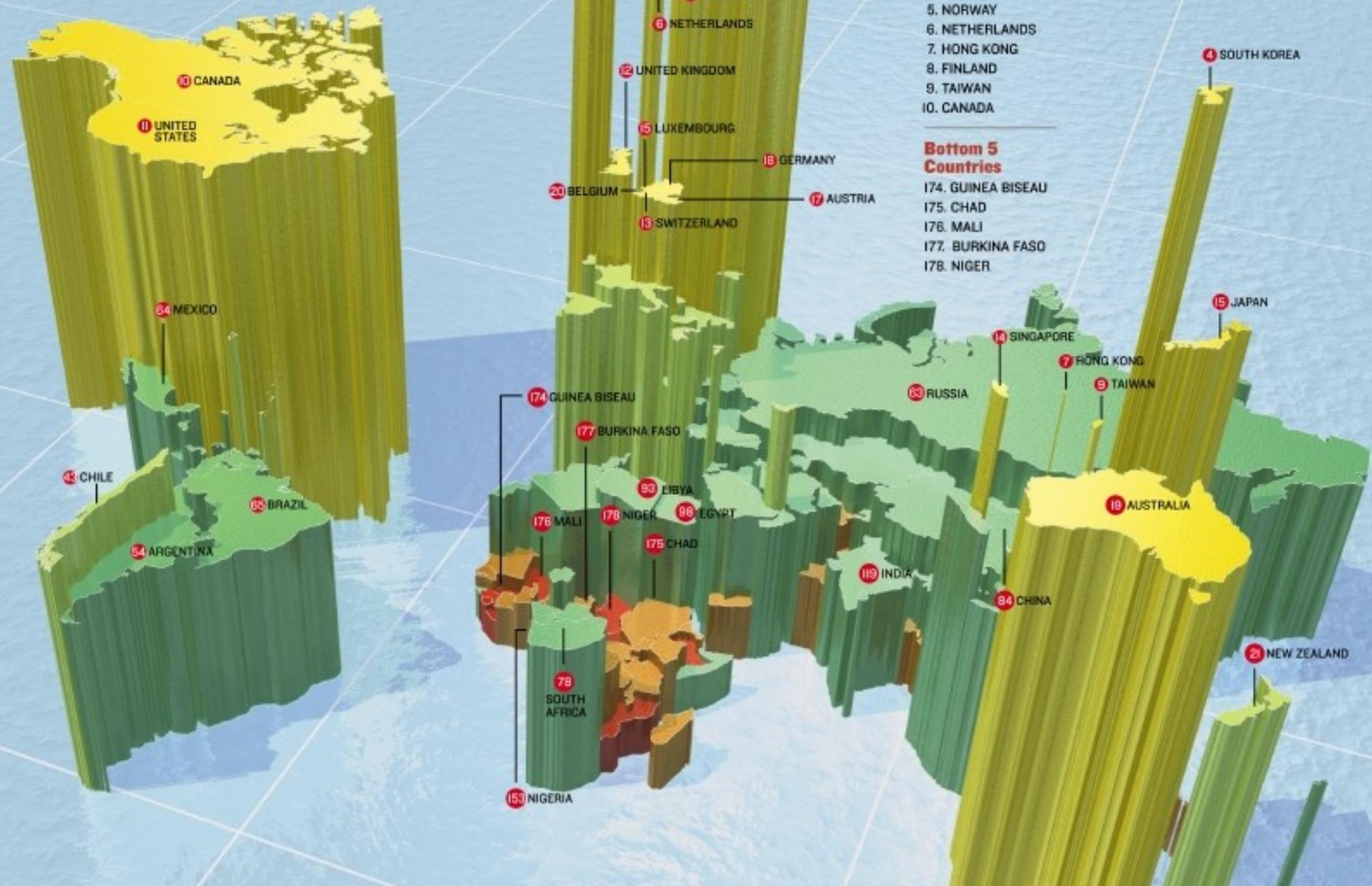
Farmers will be able to learn the current market price of their produce through the Internet, resulting in increased economic efficiency.

Cyber Kiosks will also bring employment opportunities to the community at large. With training, young people will be able to perform data entry and provide transcription services for any company in the world, a better alternative than migration to urban slums in search of employment.

Muhammad Yunus (1998) - Alleviating Poverty Through Technology



The Digital Divide



Convergence / modernisation theory genopstår som the euphoric 'cyberbole'



“sufficient cause of social change”

We meet today to break down walls...

In the Agricultural Age...

[access to land]

In the Industrial Age...

[access to capital]

In the Information Age

[access to knowledge and learning]

Al Gore in Gunkel, p. 511



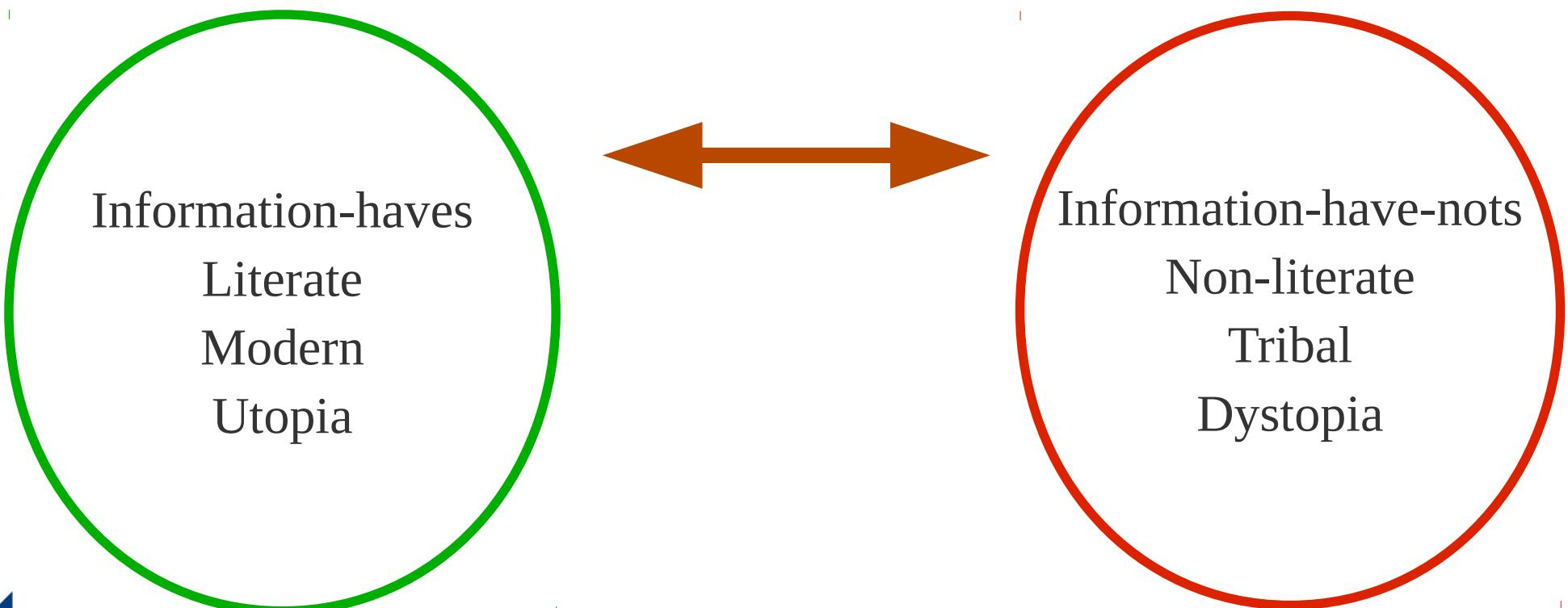
Digital Divide

- Vi har ikke convergence (selvom vi måske kan få det)
- En flerhed af sociale, økonomiske og teknologiske uligheder
- IT spiller central rolle



Digital Divide

- Digital divide er digital!
- Opstiller dikotomier og "great divides"
 - Et udgangspunkt, som er godt, har en anti-tese, der er skidt



Hvor ser vi fra?



Den præstige

Den upræstige anden

“The white, affluent neighborhoods qualified and the primarily black, lower-income neighborhoods didn’t,”

Digital Divide

- Der er stor forskel på hvad information bruges, tilgås, og får relevans
- **Determinisme** driver værket

The reports, texts, and discussions of the digital divide do not question this prevailing technological determinism, **but exploit it.**

- Empiriske studier fremhæver sociale og økonomiske årsager
 - Race, geografi, klasse, osv..

“The challenging part is there has been a digital divide [læs binær opdeling] before Google got here. They didn’t create this,” Chambers says. “But in their attempt to bridge it, they may end up widening it.”



Digital Divide Paradokser

- **Binær opdeling drilles af det empiriske**
- Vountary non-users
 - Information want-nots // internet drop-outs
- Teknologi afviger fra intenderet brug
 - Hvad nu hvis de hvide får hjemmearbejdspladser mens de sorte bare ser youtube?

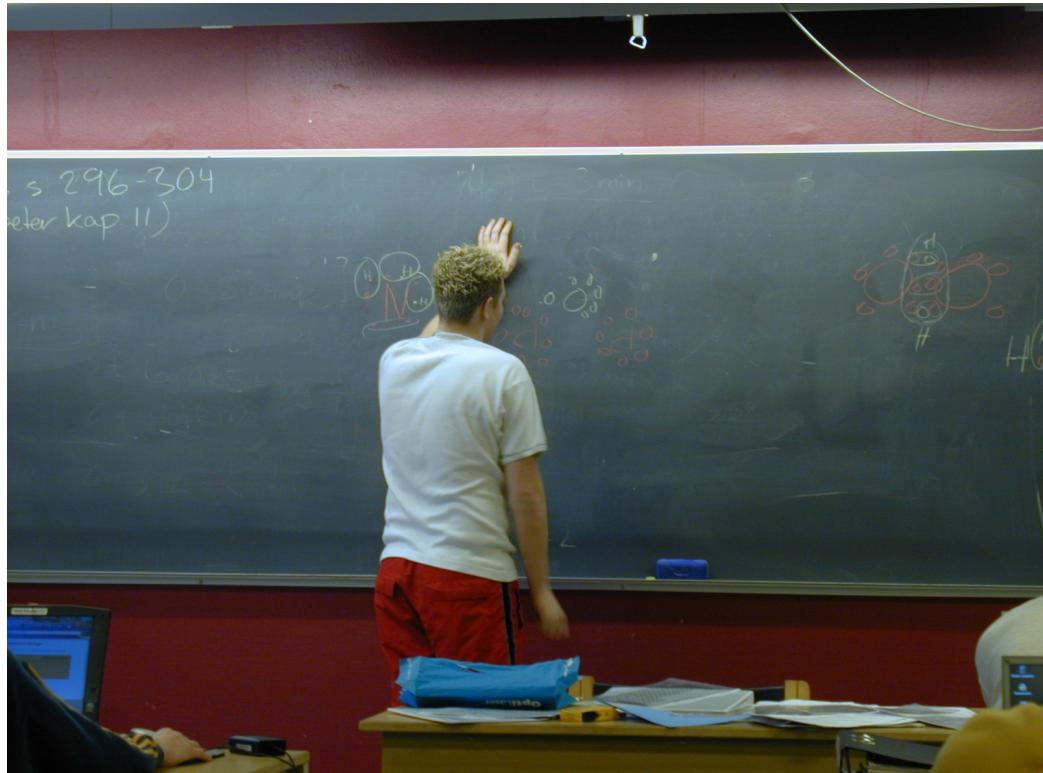
...there remains significant dissonance between the socioeconomic liberation promised in the rhetoric of the internet and the actual patterns of use discovered in the empirical surveys.

(Gunkel, p. 514)



<http://www.nytimes.com/2010/11/21/technology/21brain.html>

Ex: Wired for Distraction



Digital Divide

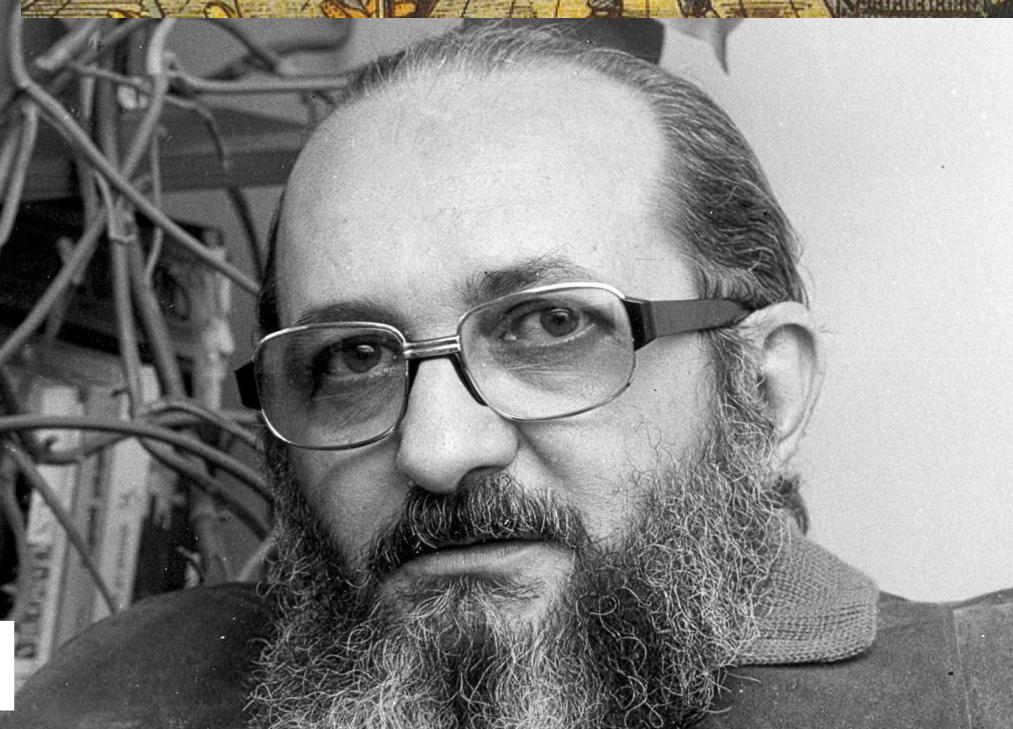
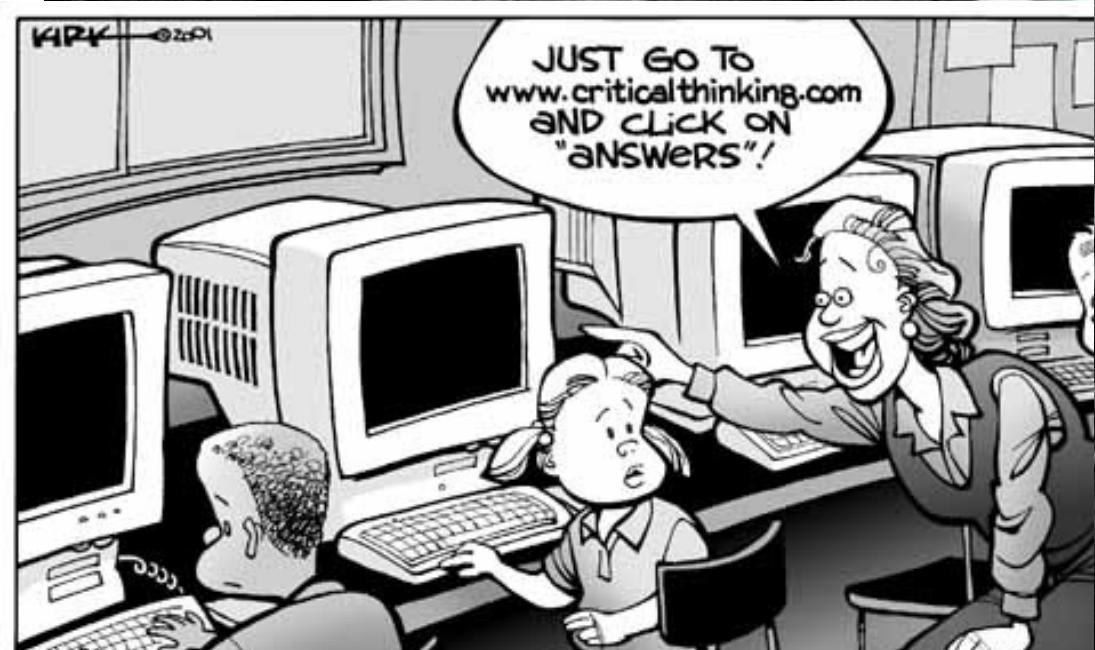
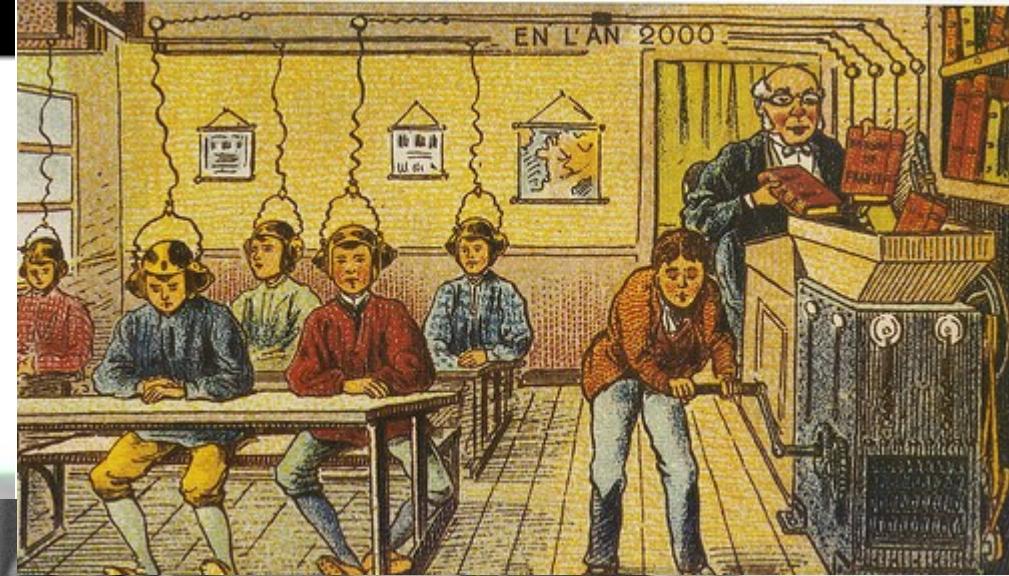
...the task of criticism might appear to be **to escape binary logic**, replacing the dichotomies of the digital divide with something that is less decisive and derisive [...] fantastic, if not impossible.

(Gunkel, p. 508)



Spm: Hvordan med ANT?

Adgangsdeterminisme



Modernisation 2.0 <> Dependency 2.0

Adgangsdeterminisme

- Adgangsdeterminisme: At adgang til teknologi er nok i sig selv (min sprogbrug)

This view of information technologies as a means of transmitting rather than creating information is symptomatic of a modernization approach... This approach conceives people as passive retrievers of existing information only, and in the process usually leaves *no room for community-building or other transformative activities*

(Leye, p. 987)





Sugata Mitra



Han lærer nye ting, men er det transformativt?

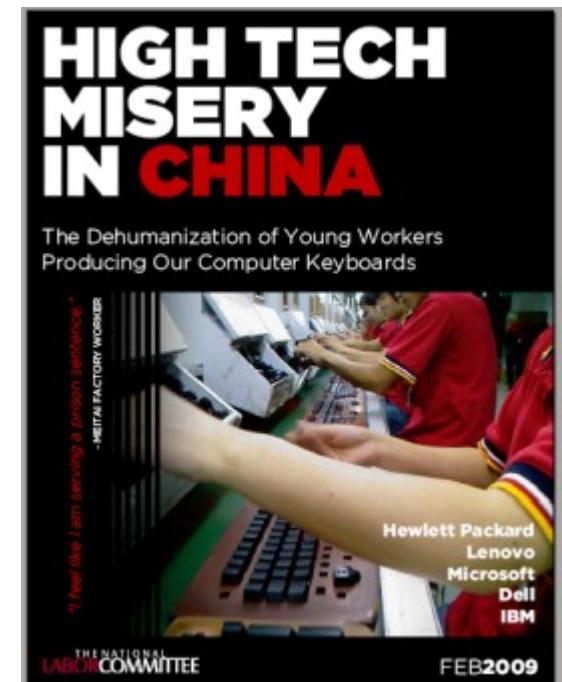
Divides as Dependency

- Leye foreslår **Dependency 2.0** som modsvar til digital divide som Modernisation 2.0
 - Gunkel (og vel også Castells) ser dog Digital Divide som netop modsvar mod Modernisation // Convergence
- Nutidens aktører (e.g. UNESCO) ignorerer fuldstændig "the failed modernization programmes concerning media and education of the past"



Already connected

...when the developing world finally is adequately and sufficiently connected, it will become fully integrated into the global economy and hence become an equal partner of rich countries...



Miranda: Inf.samf. og DD er neoliberale myter



3 problemer

1. Ignorerer sammenflethning af teknologi og samfund

- Behandler teknologi som en autonom forandringsagent (determinisme)

2. Abonnerer på teknologiske fix

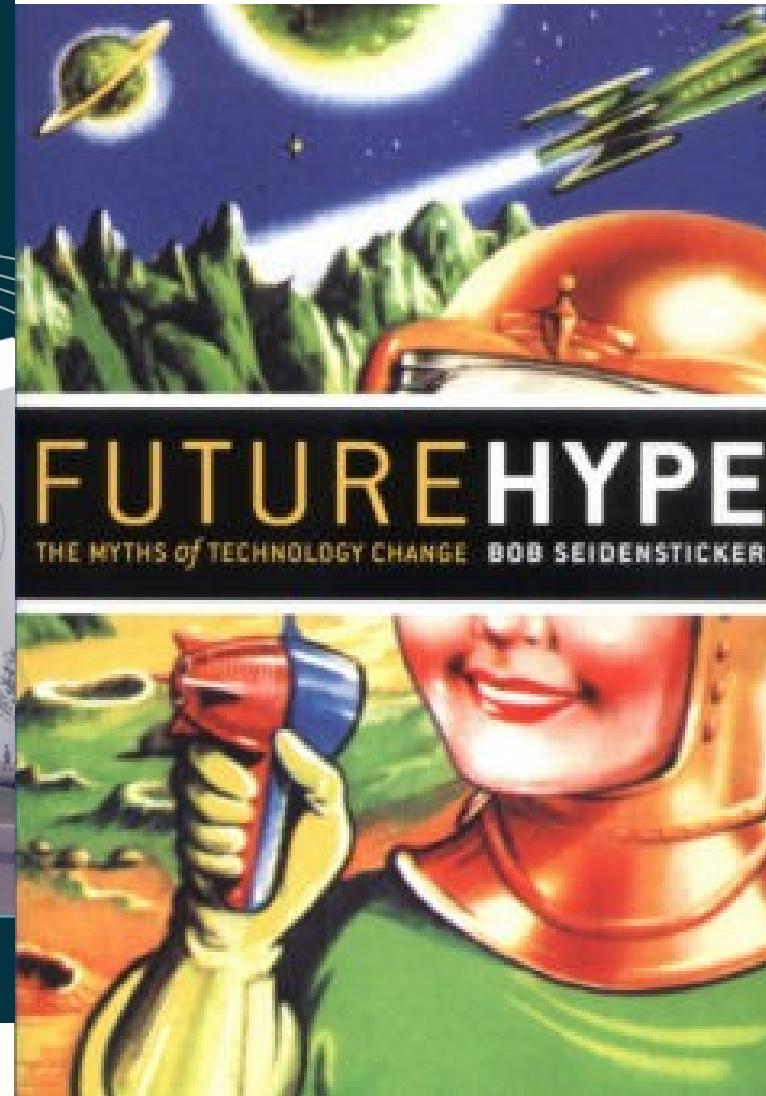
- Quasi-magical powers to provide solutions to the world's greatest social and economic problems

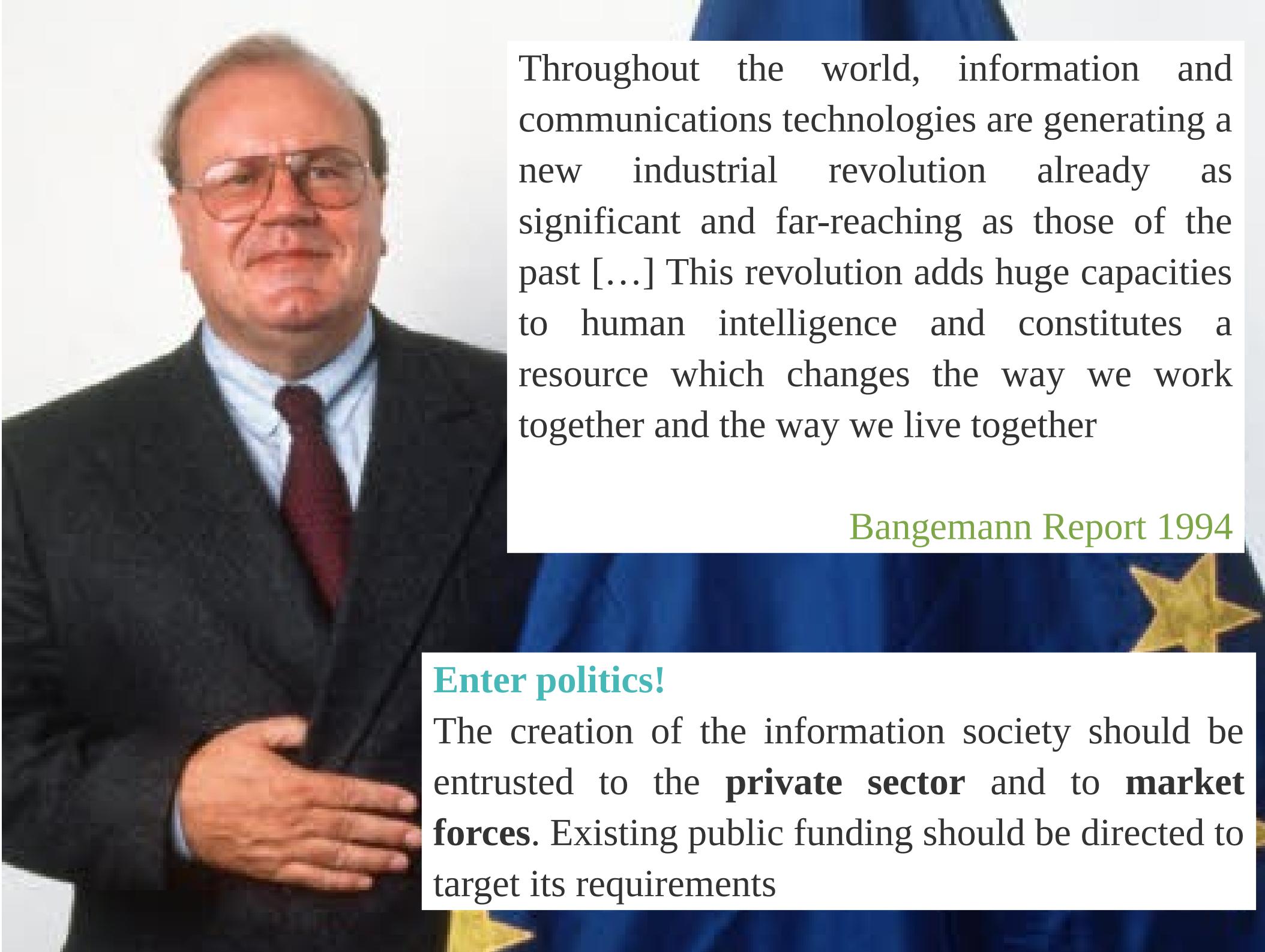
3. Skjuler ideologi og politik

- Teknologisk forandring fremstår "rational, objective and inevitable"
- Politik kan derfor med fordel skjules bag teknologisk nødvendighed



Creating the myth





Throughout the world, information and communications technologies are generating a new industrial revolution already as significant and far-reaching as those of the past [...] This revolution adds huge capacities to human intelligence and constitutes a resource which changes the way we work together and the way we live together

Bangemann Report 1994

Enter politics!

The creation of the information society should be entrusted to the **private sector** and to **market forces**. Existing public funding should be directed to target its requirements

Hvorfor er de sure?

Reality check

The issue is building a *society* for all. This can only be done by 'bridging the *socio-economic divide*'. Such bridges cannot be built without challenging wealth and privilege (Miranda, p. 37)

The talk: "a technodeterministic, utopian promise of social, economic and political benefit"

The walk: "just another phase in the development of capitalism"
(Leye, p. 973)

...if the poor in developing countries are offered the opportunity for lifting themselves out of poverty and they do not succeed, they are themselves to blame. (Leye, p. 988)



IMAGINARY FUTURES

From Thinking Machines to the Global Village



RICHARD BARBROOK

...the concepts of the 'information society' and of the 'digital divide' have been consistently used to **promote particular policies through the creation of dreams of a future techno-utopia** in which all will participate, from which all will benefit, where the deepest human aspirations will be fulfilled. (Miranda, p. 34)

To temporele plan

- Nutid er beta-version af fremtid
- The importance of a new technology lies not in what it can do here and now, but in what more advanced models might be able to do one day [...] Contemporary reality is the beta version of a science fiction dream: **the imaginary future** (8-9)

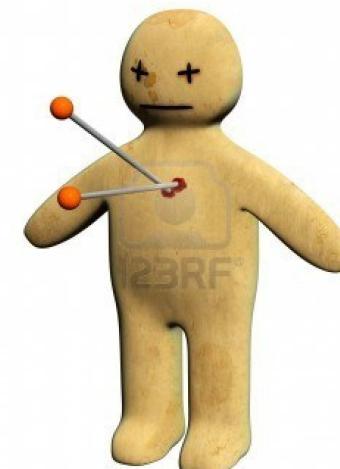
"Nasa's spaceships would evolve into luxurious interplanetary passenger liners," says Barbrook. "General Electric's nuclear fission reactors would become fusion plants providing limitless energy for all. IBM's computers were prototypes of artificial intelligence.



Teknologisk fremtid

- Barkbrook er i polemik med determinisme

"the theory that someone builds a machine, the machine sprouts legs and runs around the world changing it"
- Fordi vi ikke ser alt det usynlige arbejde, når vi bruger Oyster cards, så tror vi teknologien gør hele arbejdet
 - **Vi fetischerer**



Imaginary Futures

- 60'erne
 - Modernisation
- 70'erne
 - Futurology, the hippy Commune, the global village
- 80'erne
 - Silicon Valley, Apple, PC, etc..
- 90'erne
 - Dotcom, digital divide
- 0'erne
 - Web 2.0, brugerdrevet..
- 10'erne ?



Imaginary Futures

At various times from the 1950s to the 2000s, the information society has been identified as a state plan, a military machine, a mixed economy, a university campus, a hippy commune, a free market, a medieval community or a dotcom firm. During these five decades, these rival definitions came in and out of fashion as the fortunes of their promoters waxed and waned. Only one thing remained constant throughout. If about nothing else, the rival ideologues agreed that building the Net was making the future society

(Barbrook 2007, p. 273)



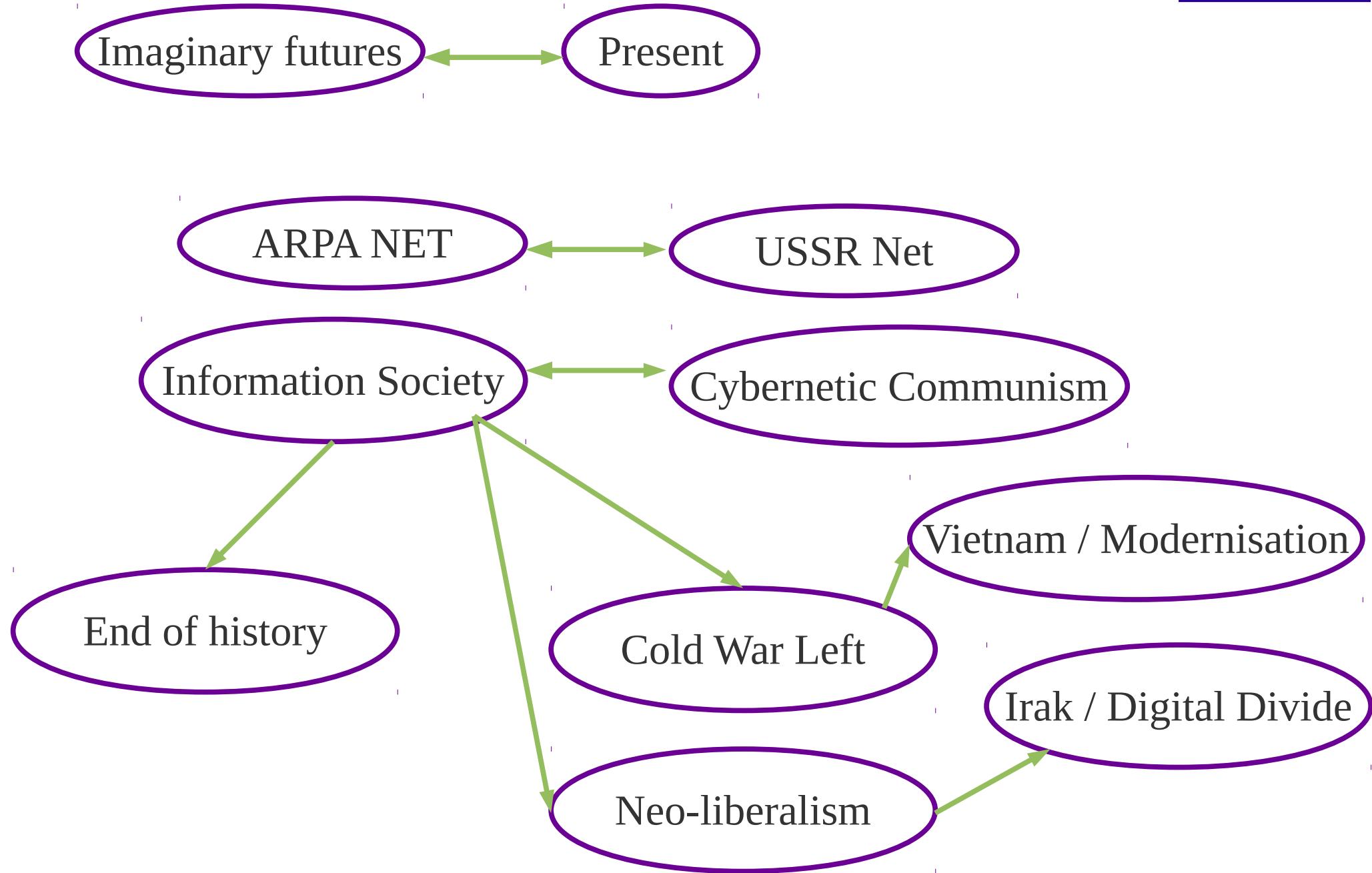
Og Wiener...

Marxism-McLuhanism

- The Medium is the Message
 - Medier determinerer det sociale fordi de er "extensions of man" der forandrer vores væren i verden
 - Feedback loops mellem information og handling
- Ny teknologi skaber break boundaries, der for stedse transformerer disse kybernetiske loops

The transformations of technology have the character of organic evolution because all technologies are extensions of our physical being.
(*Understanding Media*, p. 248)





We are the machine!

Rather than disciplining the present, these new futurist visions can be open-ended and flexible. We are the inventors of our own technologies. We can master our own machines.

(Barbrook, p. 291)



Der er dog mange til forsvar

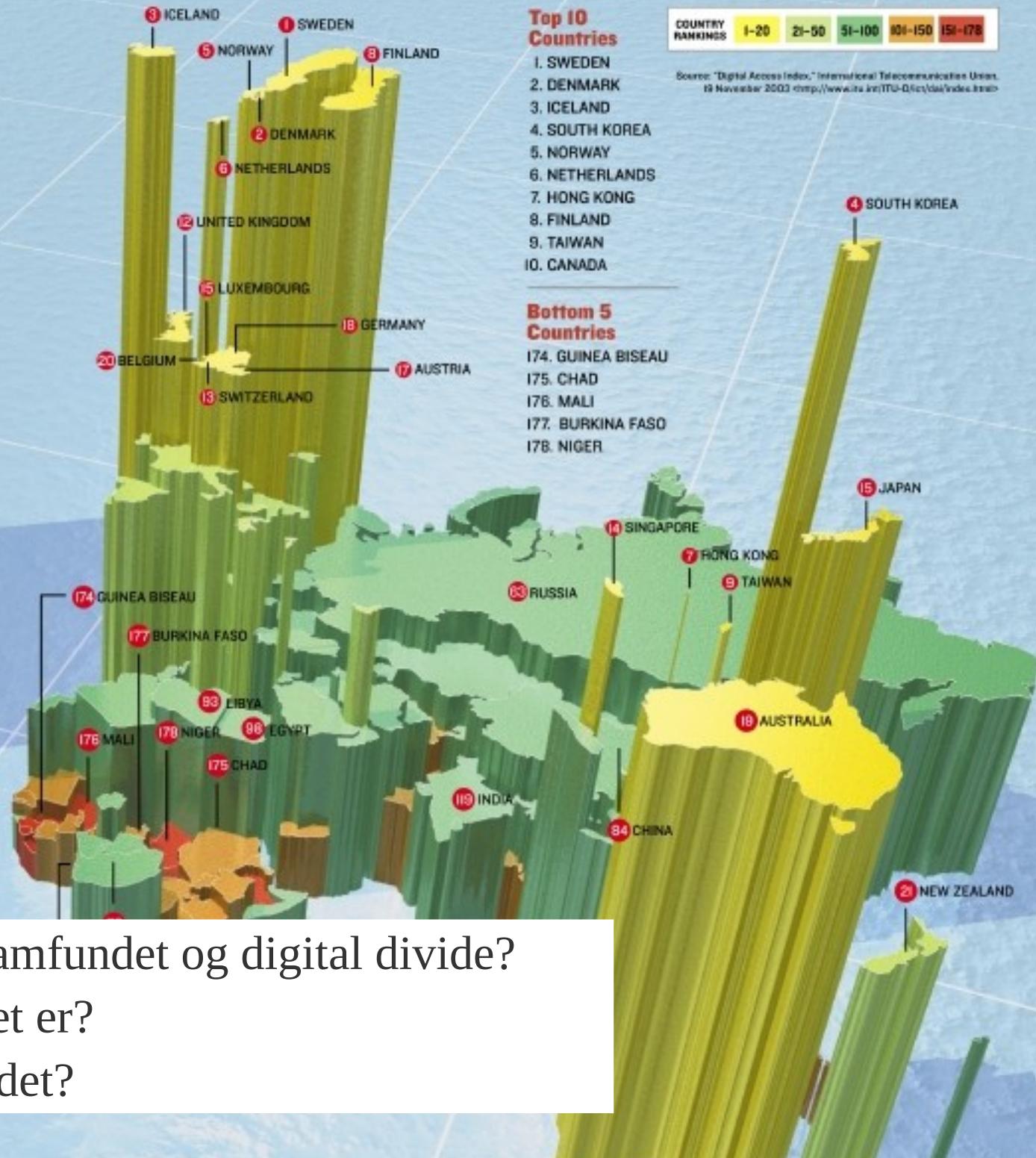
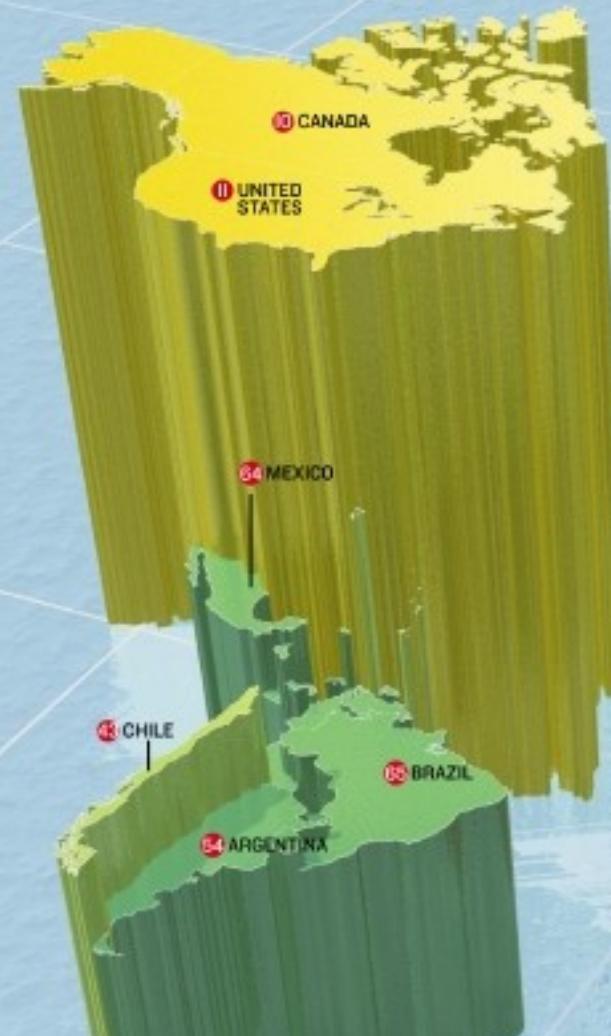
- Can we find more equitable ways of developing cities and settlements in an electronically mediated age?
 - Stephen gennemgår en lang række eksempler

“the poverty of connections” is now as important as traditional poverty which comes from the lack of housing, food, water, work and essential services. Such a ‘poverty of connections’ limits a person’s or a group’s ability to extend their influence in time and space, often condemning them to local, place-based ties and relationships.

[Stephen Graham – Bridging Urban Digital Divides](#)



Tænke, tænke



- Hvad *er* informationssamfundet og digital divide?
 - Hvad siger ANT at det er?
 - Hvordan analyserer vi det?