



DRAFT VERSION –
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Social Capital and The Learning Intensive Society

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Long-term Vision and Strategy for
the 21st Century, KDI-WB
Conference, December 4 & 5, 2006

Three premises

Mankind is at a turning point, the beginning of a new rationality in which science is no longer identified with certitude and probability with ignorance. ... science is no longer limited to idealized and simplified situations but reflects the complexity of the real world, a science that views us and our creativity as part of a fundamental trend present at all levels of nature.

Ilya Prigogine, *The End of Certainty: Time, Chaos and the New Laws of Nature*

The End of Certainty

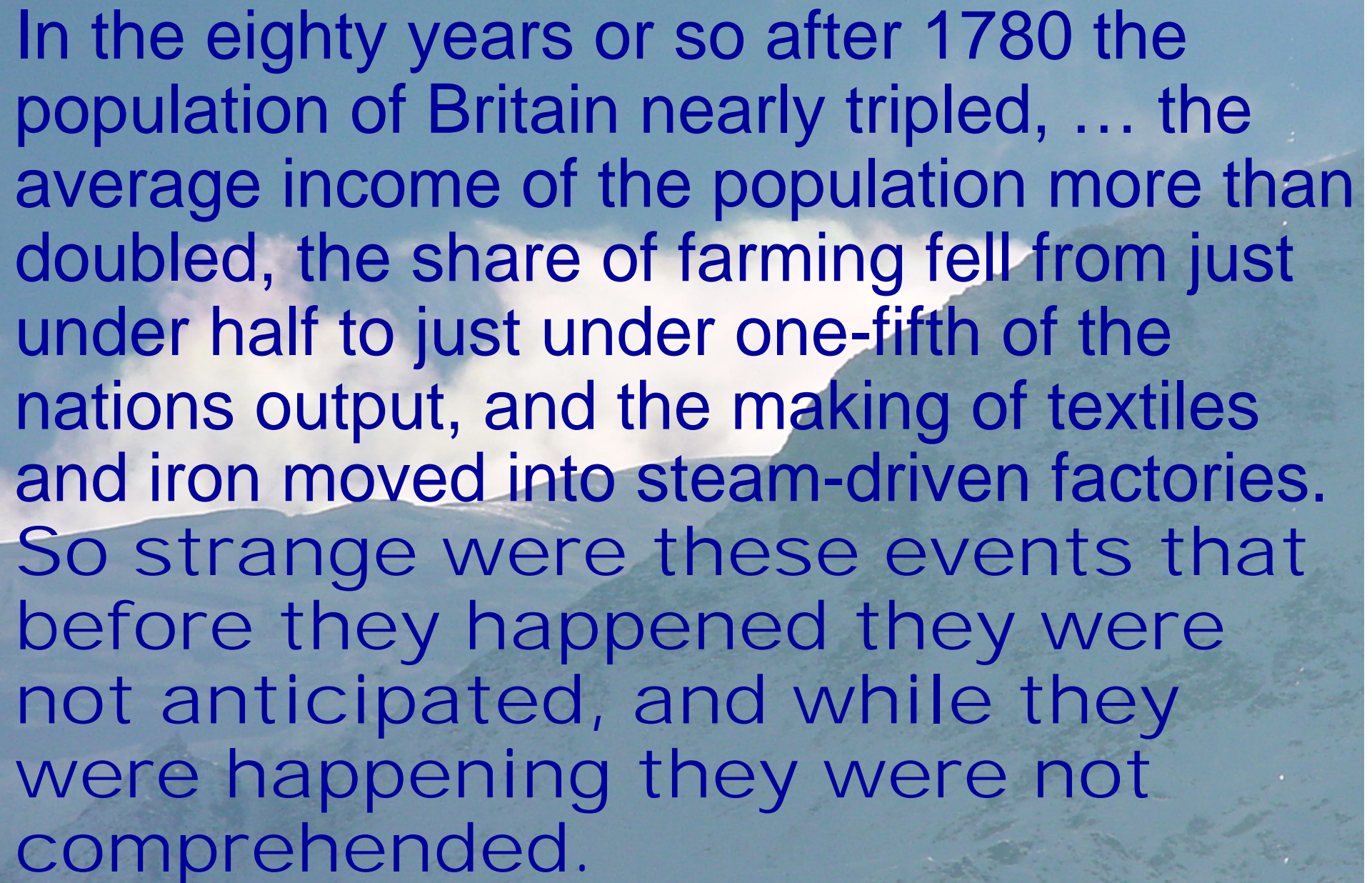
... we are now able to include probabilities in the formulation of the basic laws of physics. Once this is done, Newtonian determinism fails; the future is no longer determined by the present....

The world is non-ergodic

... almost all of the issues that we are concerned with in this room are uncertainty issues. Some result straightforwardly from simply not having enough knowledge. Faced with that kind of uncertainty, we can acquire more knowledge and therefore convert uncertainty into risk, which is what human beings have done for a long period of time. Other uncertainty issues, however, arise from the non-ergodic aspects of the systems with which we are concerned.

That is, the systems in which we are interested reside in a world of continuous change, in many dimensions—not only in terms of physical change but also change in the social structure and behavior of human beings. Furthermore, to make our lives even more difficult, all the theory that we have in economics, at least all of the theory that is well developed, is *static* theory. Whether one looks to neoclassical price theory or its derivatives, it is all a static body of theory. However, all of the important issues with which we are interested here concern a *dynamic* world, one of continuous change.

Douglas North



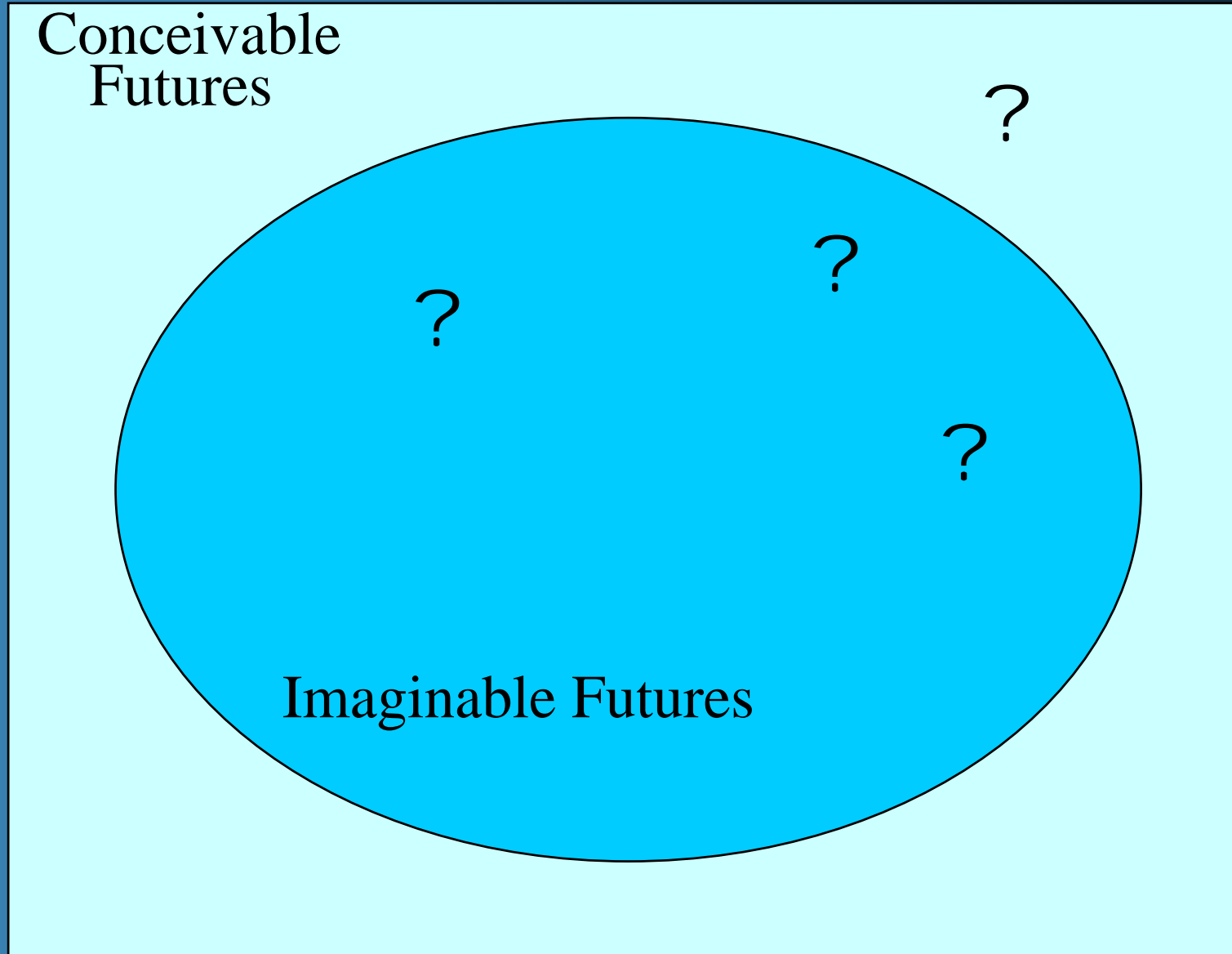
In the eighty years or so after 1780 the population of Britain nearly tripled, ... the average income of the population more than doubled, the share of farming fell from just under half to just under one-fifth of the nations output, and the making of textiles and iron moved into steam-driven factories. So strange were these events that before they happened they were not anticipated, and while they were happening they were not comprehended.

D. N. McCloskey, "The Industrial Revolution in Britain 1780-1860"

Telling stories about the future

- Types of stories
 - Optimisation
 - Contingency
 - Exploration
- Framing the narratives
 - Point-of-view
 - Temporality
 - Protagonists
 - Rules

Thinking about the future: How to select which stories to tell

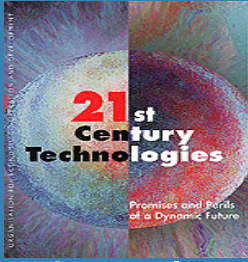


CITY OF THE FUTURE

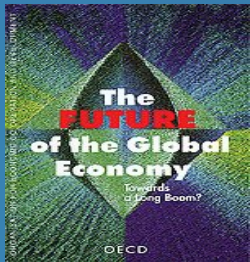
What will the city of tomorrow be like? Here is the giant plastic, metal, and unbreakable glass city of the 21st century. A city of science, of atomic power, of space travel, and of high culture. See page 240 for complete story.



An
example:
imagining a
learning
intensive
society.



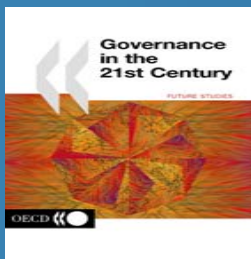
Technology



Economy



Society

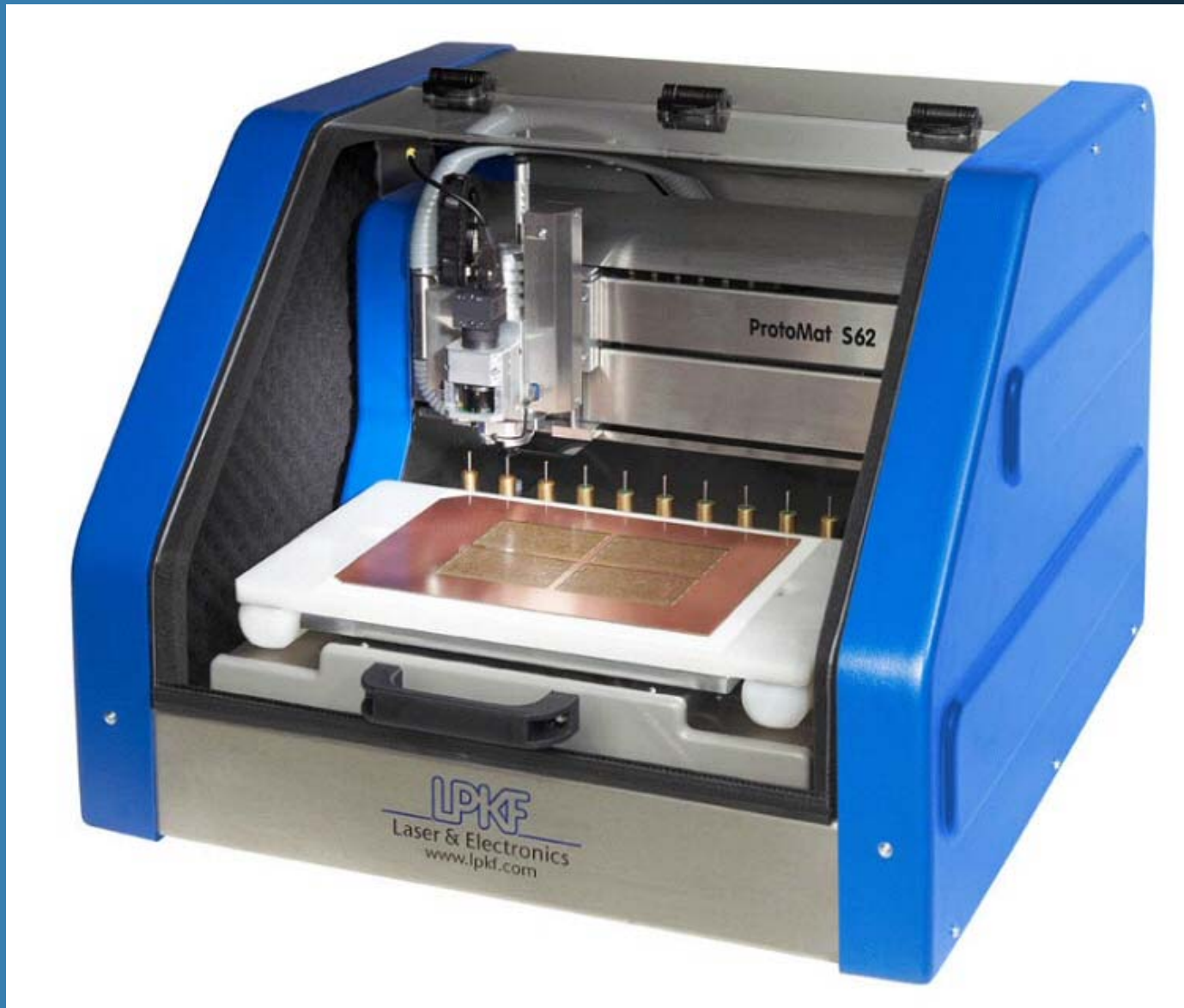


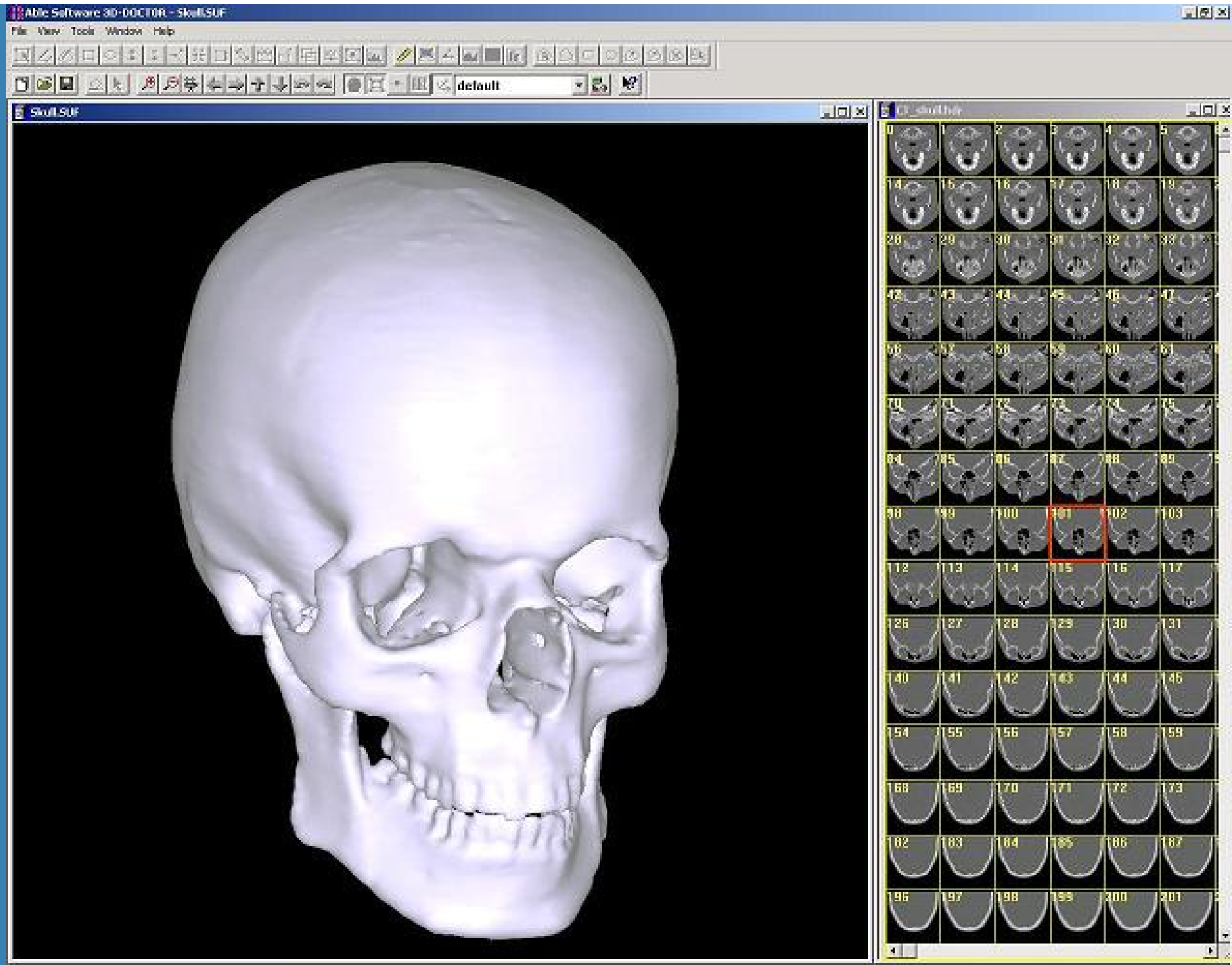
Governance

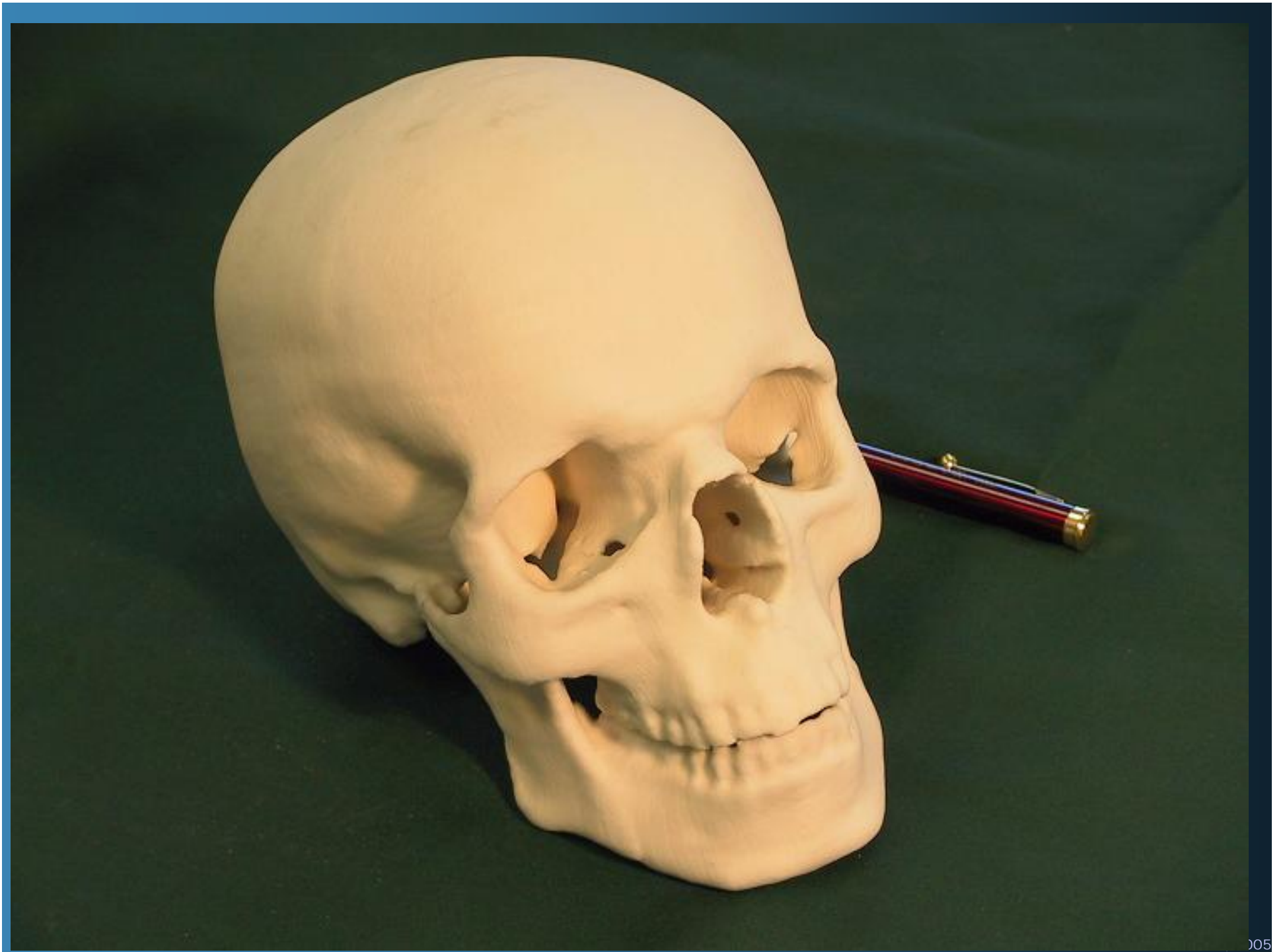
Rigorous Imagining: Learning Intensive Society

- A possibility space model
- Describes a society where incremental radicalism transforms everyday life
- Generational change
- Disrupts most institutions
- Alters culture & values

Beyond industrial production



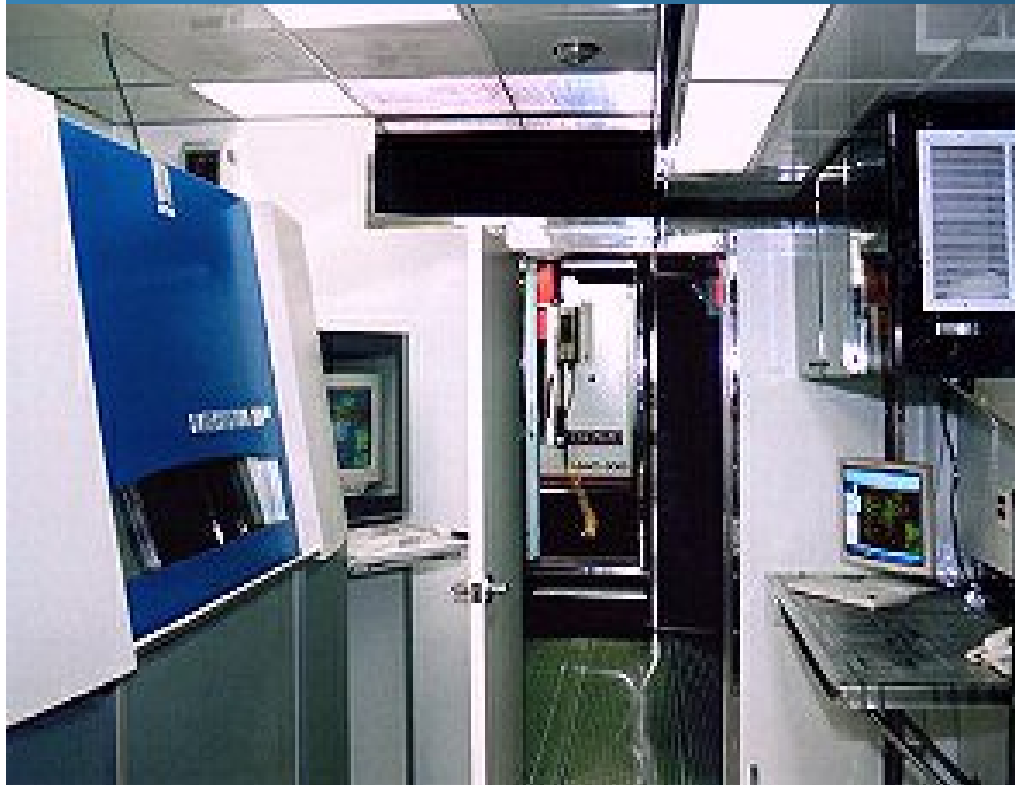




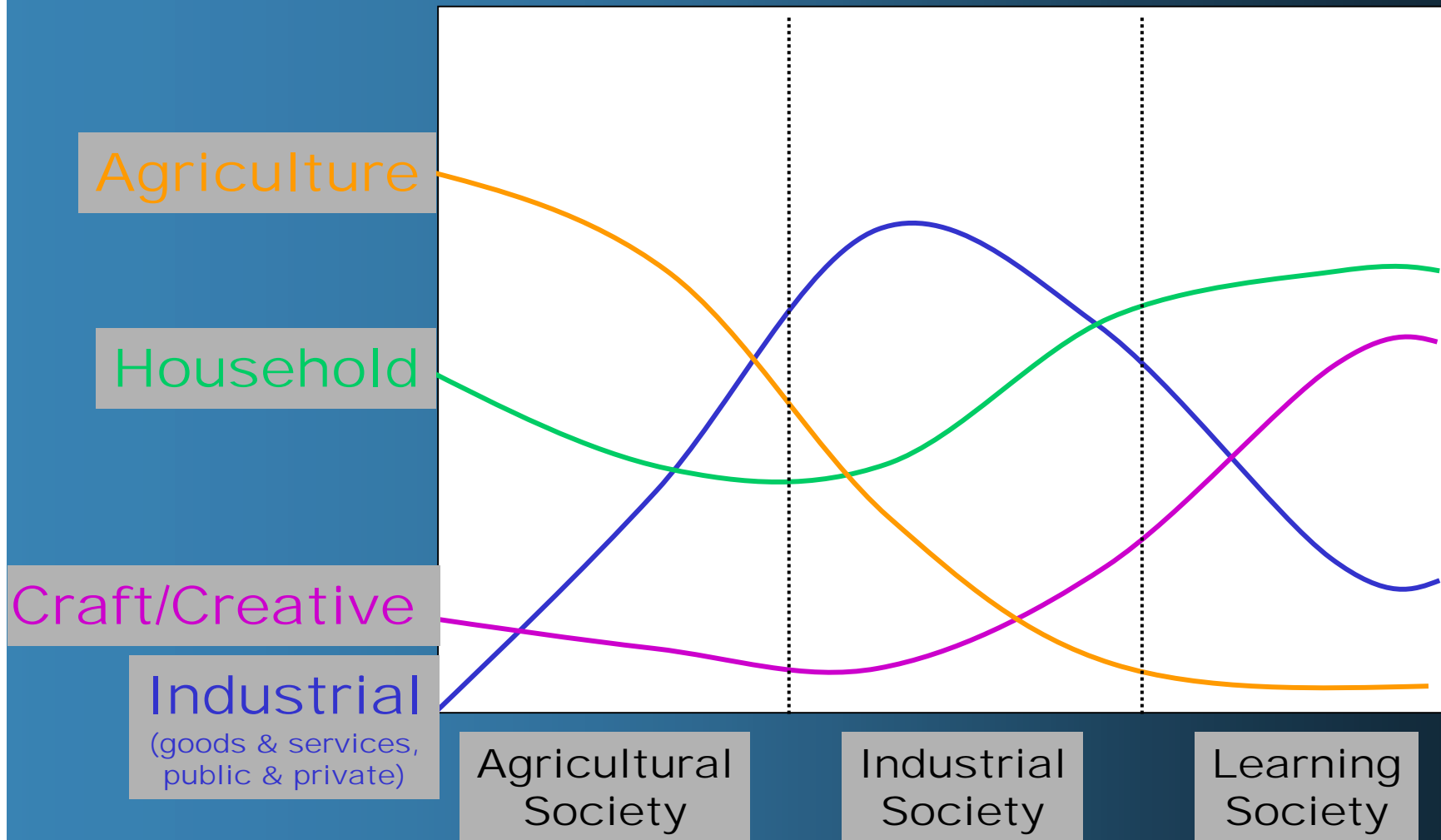
Castle Island,
Worldwide Guide to
Rapid Prototyping



US Army mobile rapid parts replacement pilot project



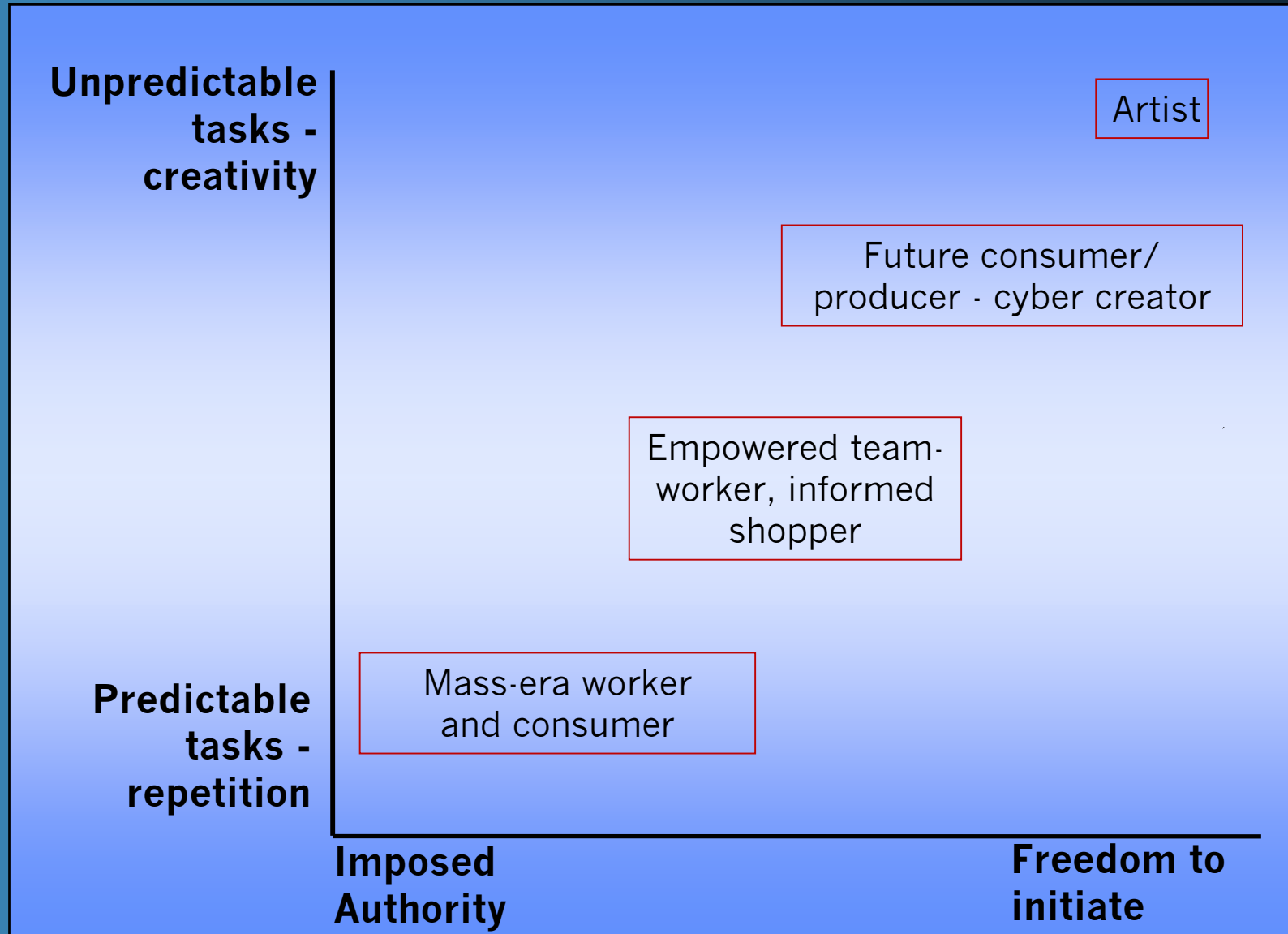
Industry is no longer primary source of value added.
Compositional Transformation
Share of total wealth creation by source



But can a non-industrial economy
(a non-innovation economy) really
create wealth?

- Will this new source of wealth be important enough to “replace” the industrial jobs and firms?
- Will this new source of wealth have the potential to continue the long trend of productivity growth that has underpinned rising standards of living and, more importantly, better quality of life?

Unique creation as source of value added

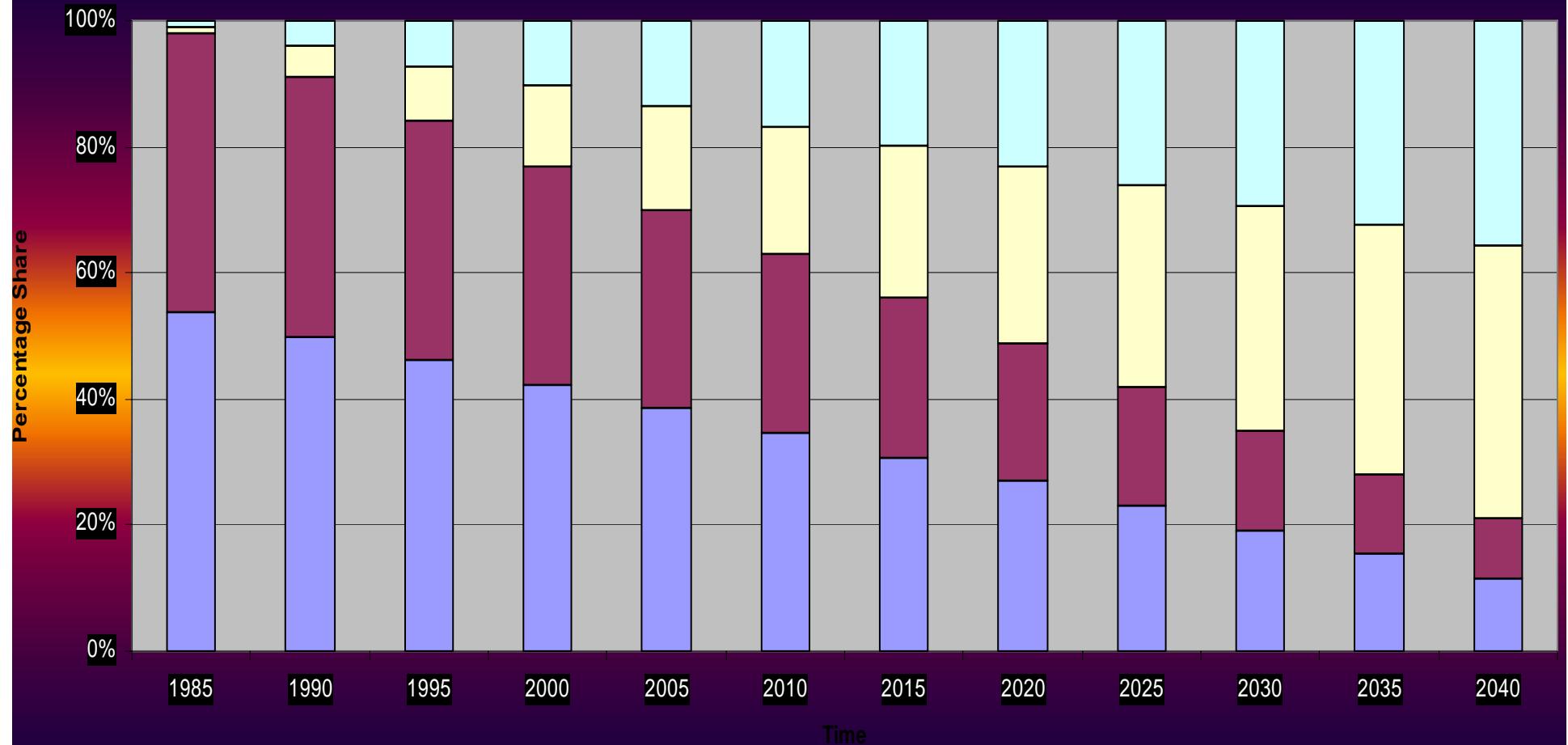


Fusing of supply & demand

The cornerstone of the Physiocratic doctrine was François Quesnay's (1759, 1766) axiom that only agriculture yielded a surplus -- what he called a *produit net* (net product). Manufacturing, the Physiocrats argued, took up as much value as inputs into production as it created in output, and consequently created no net product.

<http://cepa.newschool.edu/het/schools/physioc.htm>

Changing Composition of Output



Industrial products

Innovation (S&T/R&D)

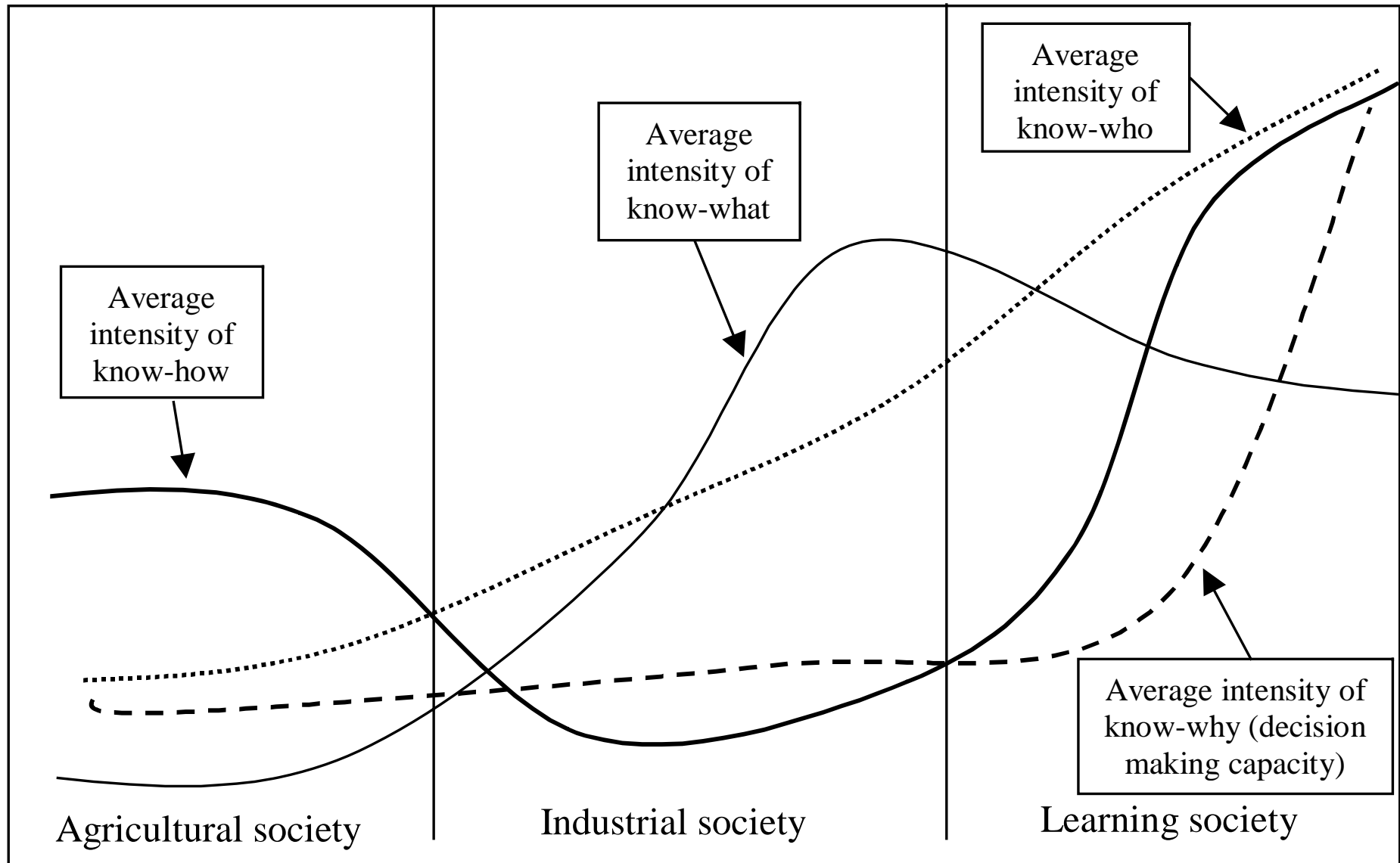
Personal products

Creativity (Refinement of taste)

Defining a more “learning intensive society”

- Learning in every day life:
 - Acquisition and use of **know-how**
 - Acquisition and use of **know-who**
 - Acquisition and use of **know-what**
 - Acquisition and use of **know-why**
- Cumulative over an entire population and over an entire lifetime

Average Learning Intensity of Daily Life



Scale of the transition: towards a learning intensive society

- Wealth, rules, governance, values
 - Physical/financial vs human capital
 - Simple vs complex property rights
 - Ex-ante vs real-time allocation of power
 - Shared values as basis for transaction trust (Universal Declaration of Human Rights)
- Quality of life
 - Mass production vs production for self/community
 - Life organized for work vs work organized for life
 - Hierarchy vs heterarchy
 - Imposed identity vs self-generated identity
 - Sen's definition of "freedom"

A photograph of a dilapidated wooden bridge over a stream. The bridge is made of weathered wood and appears to be in poor condition, with some planks missing and the structure leaning. The background shows a clear blue sky with a few wispy clouds and bare trees, suggesting a late autumn or winter setting. The overall scene conveys a sense of neglect and abandonment.

Don't build a
bridge to
nowhere.
Instead of
planning
use greater
complexity,
heterogeneity,
network density
and *capacity* for
spontaneity

A Perilous Transition?



Certainly, if we do it this way
A changed context for social capital?

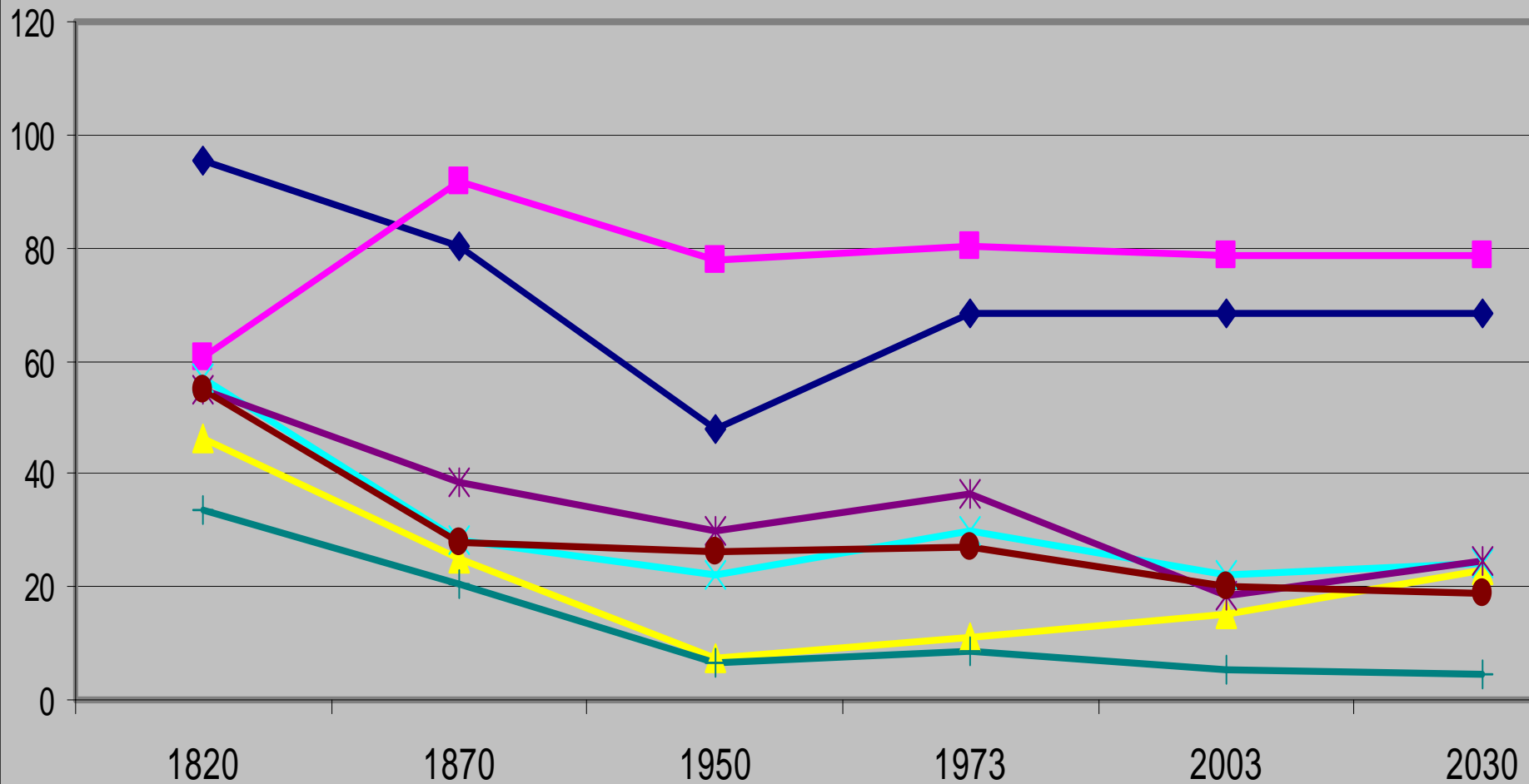
Why, what and how – Social capital in the Learning Intensive Society

- Why:
 - Subsistence versus post-subsistence
- What:
 - Utility versus joy
- How:
 - Planning versus spontaneity
 - Hierarchy versus heterarchy

Comparing social capital

- Long-run conditions
- Emergent conditions

Per Capita GDP relative to USA 1820 to 2030

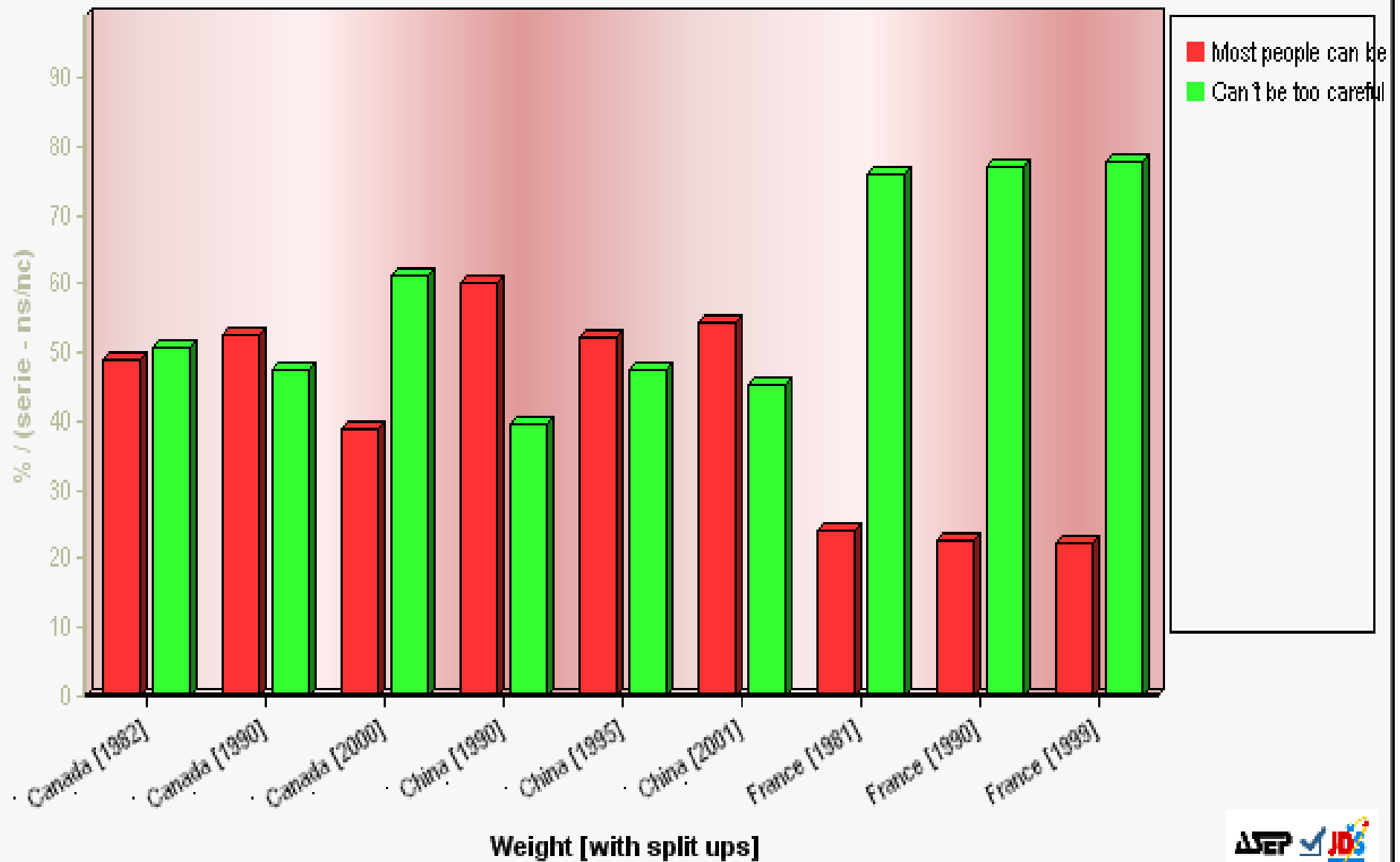


◆ Western Europe ■ Other W. Offshoots ▲ Asia (incl. Japan) * Eastern Europe
* former USSR ● Latin America + Africa

Source: Angus Maddison, forthcoming, OECD, 2007

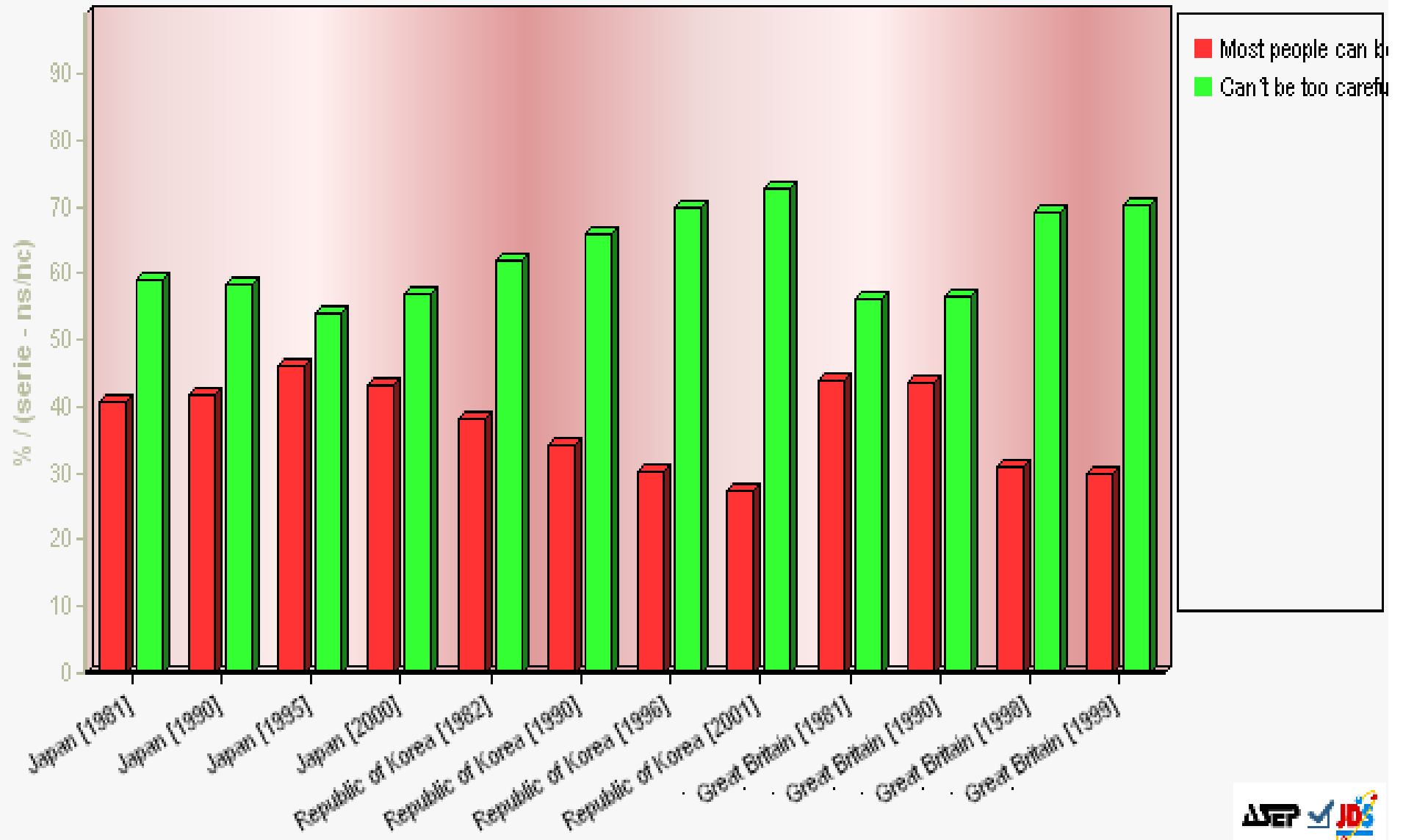
Trust over time

Most people can be trusted



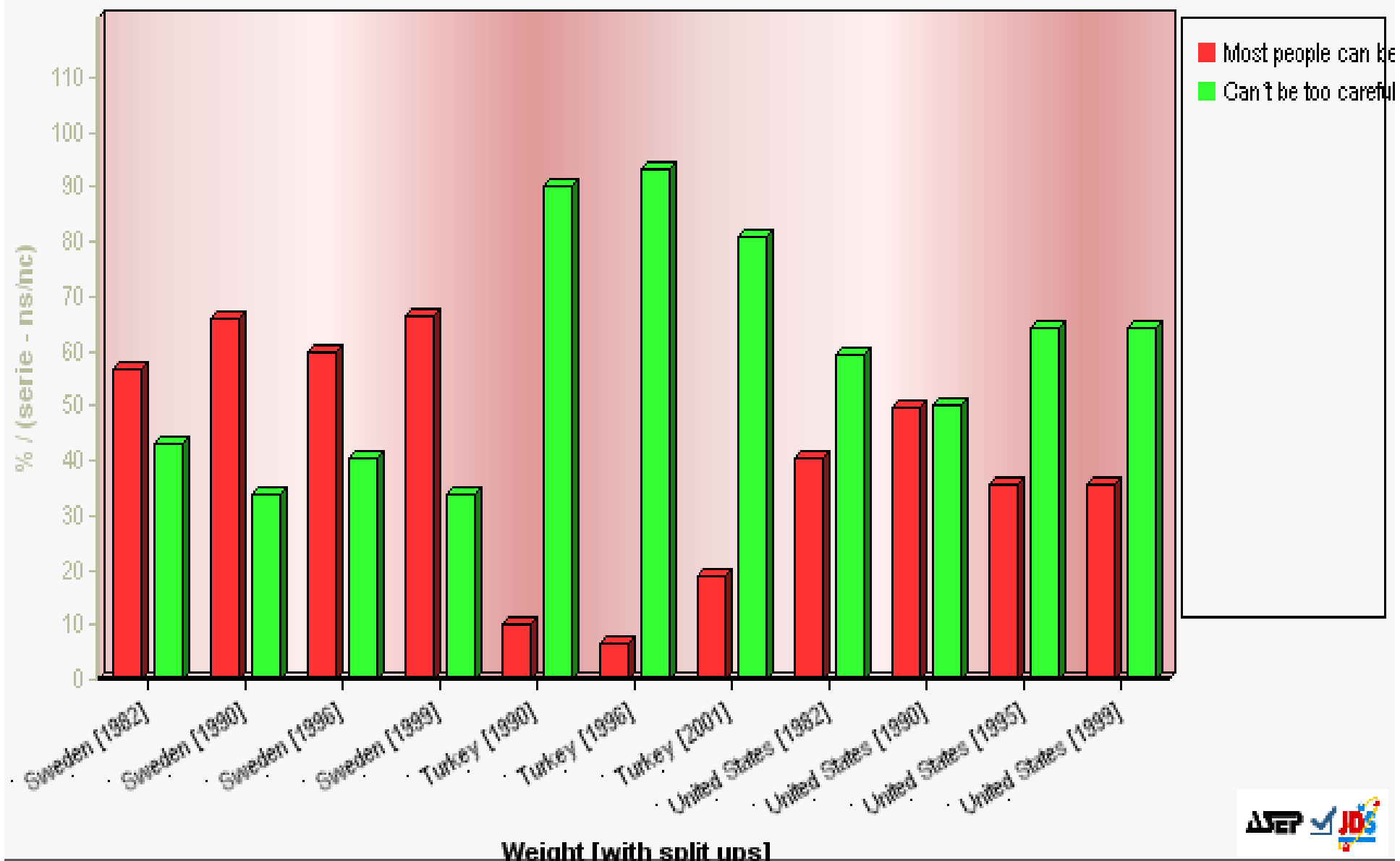
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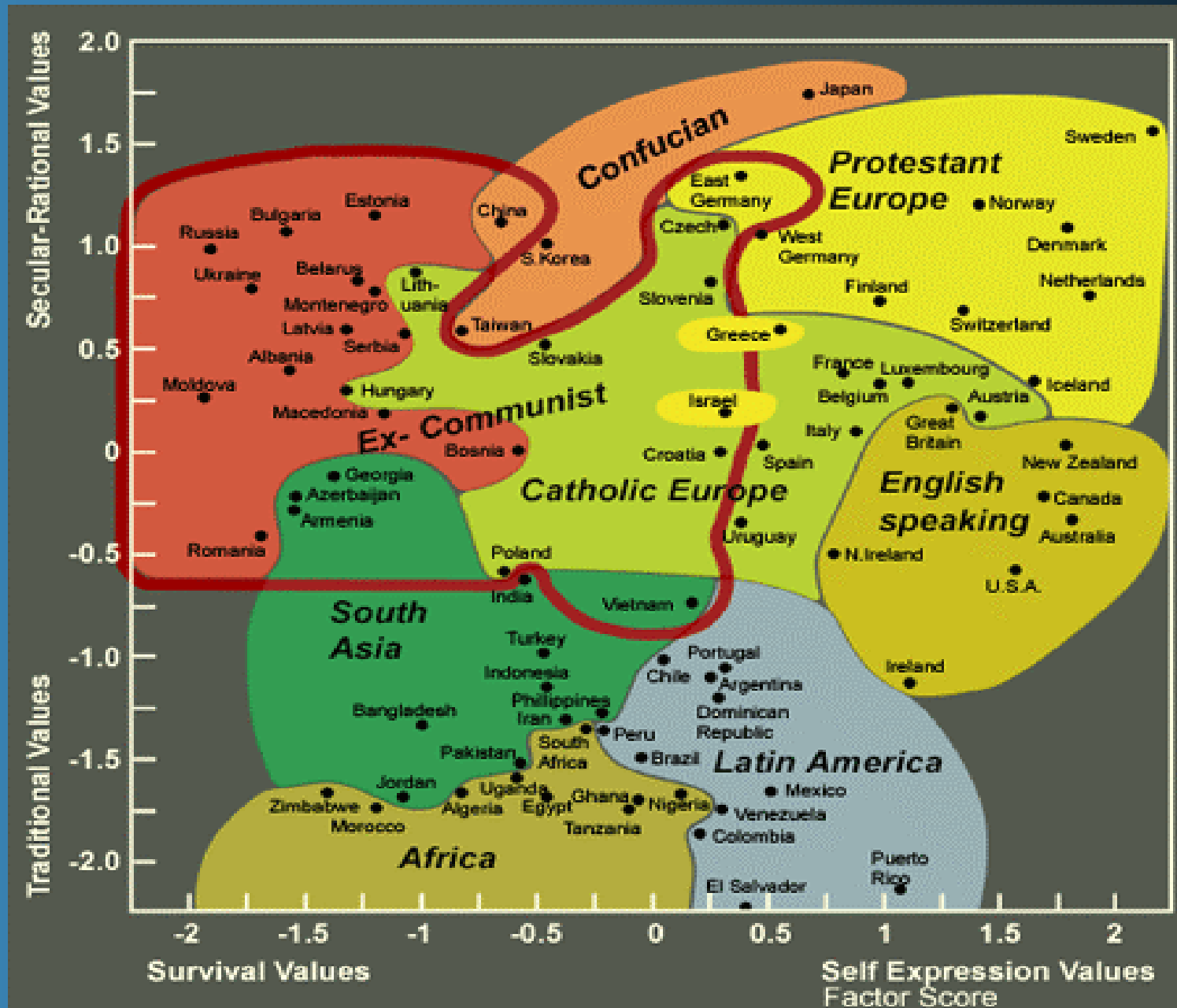


Trust over time

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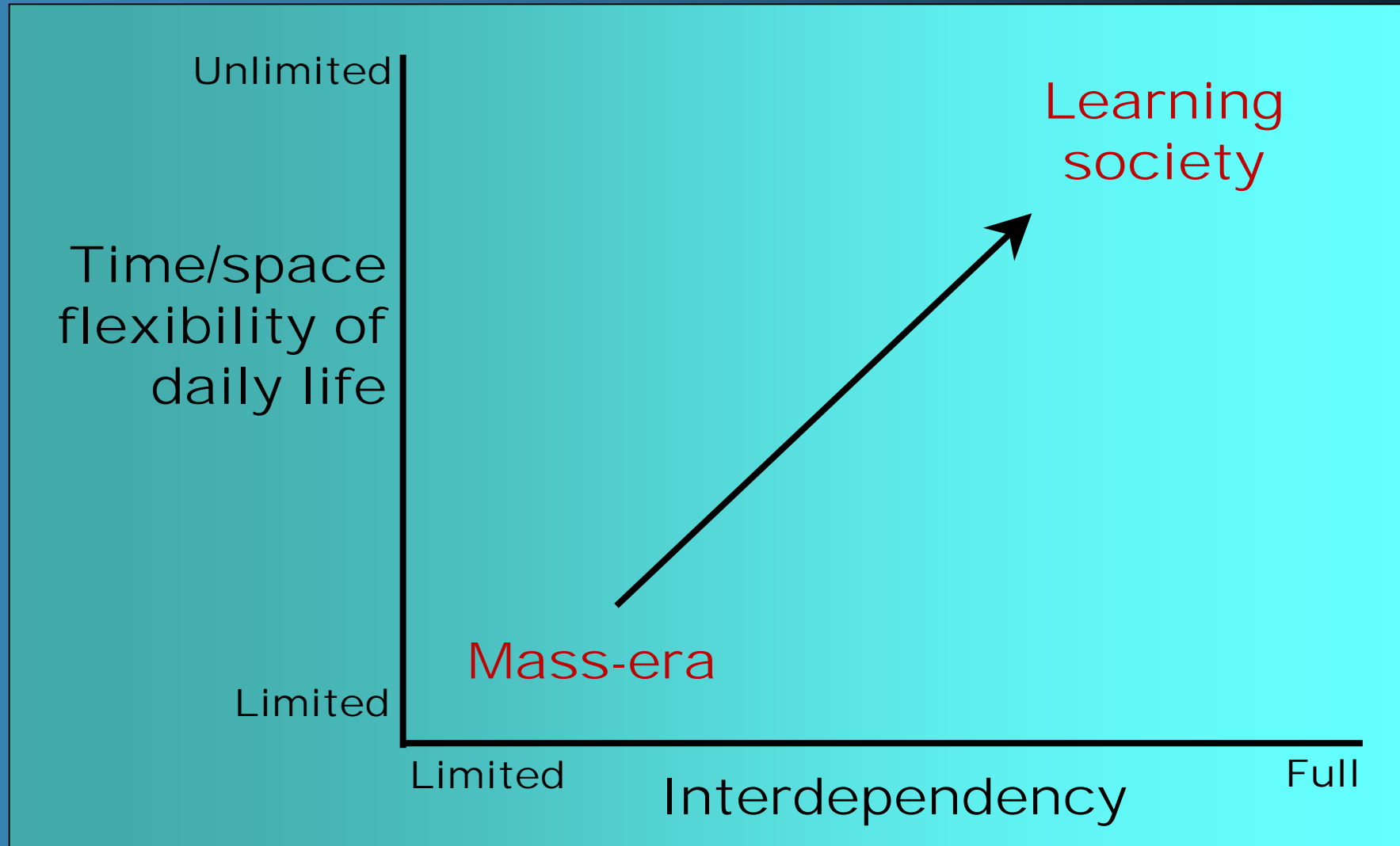
Inglehart-Welzel Cultural Map of the World



Social capital in a learning intensive society

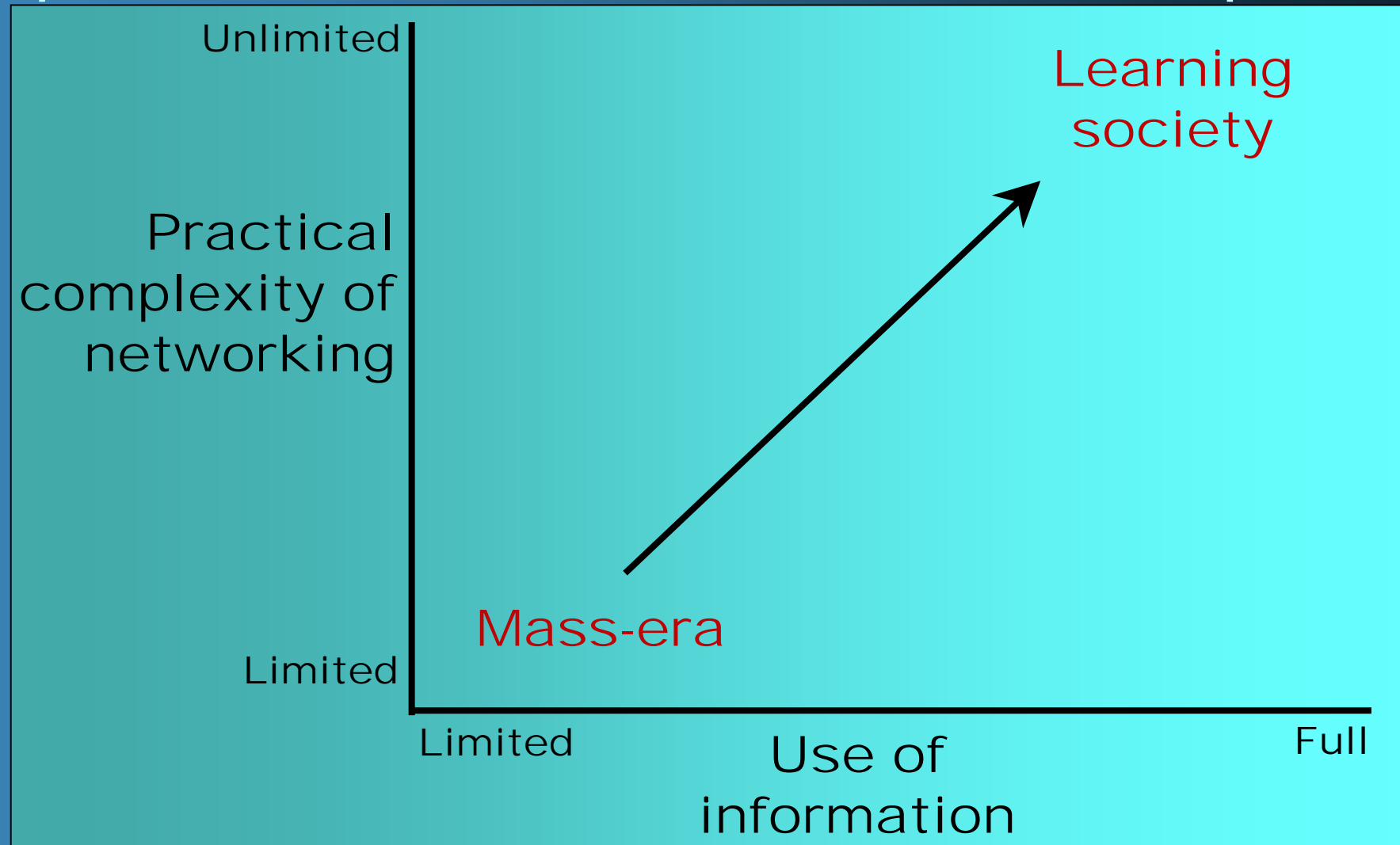
- Depends on:
 - How high is learning intensity?
 - How direct & complex is the interdependency of daily life?
 - How flexible are time/space choices?
 - How central is a much greater capacity to continuously generate self-community?

Asynchronous social capital?



Choice & necessity

Networking & information: towards spontaneous & fluid social capital?



Do we have the capacity to tell the stories that would allow us to embrace this spontaneity & fluidity?

All forms of social capital originate with the stories we tell

- Capital is capacity
 - Embodied in a stock & created with a flow
- Capital is speculative
 - it may or may not be productive/profitable/useful (when the time comes)
 - measuring it depends on accounting conventions
- Capital requires rules
 - e.g. land is surveyed, titled, etc.
- Social capital is intangible capital
 - a form of knowledge – the stories people tell about themselves & their relationships
 - its potential to be useful (productive of virtue or vice) is contingent on its veracity (as judged by the beholder(s))

There is a dramatic difference between stories that are imposed & stories we must invent ourselves

Which institution(s) can meet the challenge of improving narrative capacity?

- Telling one's own story: self-community, bottom-up collectivity
- Learning by doing & experimentation as paths to gaining the capacity to use diversity, complexity & all pertinent information to manage risk & achieve objectives
- Full transparency of what people know

“The human condition can almost be summed up in the observation that, whereas all experiences are of the past, all decisions are about the future. The image of the future, therefore, is the key to all choice-oriented behavior. The character and quality of the images of the future which prevail in a society are therefore the most important clue to its overall dynamics.”

Kenneth Boulding

Thank you

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