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THE POWER OF INNOVATIVE ECOSYSTEMS

# IS SINGULARITY THE RIGHT ANSWER TO OUR FUTURE

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# Predicting is Very Difficult, Especially if It's About the Future.

- *“Everything that can be invented has been invented.”*

▣ *Charles Duell, head of the U.S. Patent Office, 1899*

# Predicting is Very Difficult, Especially if It's About the Future.

- *"I think there is a world market for maybe five computers."*
  - ▣ *Thomas Watson, chairman of IBM, 1943*
- *"Computers in the future may weigh no more than 1.5 tons."*
  - ▣ *Popular Mechanics, forecasting the relentless march of science, 1949*

# About Weight.

	2000 Desktop	2010 iPhone 4
<b>Processor</b>	500MHz	1 Ghz
<b>Screen</b>	786k pixels	614k pixels
<b>Data Speed</b>	up to 12.5 MB/s	up to 20MB/s
<b>Storage</b>	30GB	32GB
<b>Dimensions</b>	37 x 37 x 42cm	11 x 6 x .8cm
<b>Weight</b>	15kg	140g

# Predicting is Very Difficult, Especially if It's About the Future.

*"There is no reason anyone would want a computer in their home."*

▫ *Ken Olson, president, chairman and founder of Digital Equipment Corp., 1977*

• *"Who in their right mind would ever need more than 640k of RAM!?"*

▫ *Bill Gates, 1981*

# About a Computer at Home.

- *Do you know of a household (in a developed world), that does not own a computer these days?*
- *In 1977 - 50 stores*
- *In 1982 - 30.000 stores*  
*in USA catered to computer hobbyists. In five years they increase to 30.000*

*(Naisbitt 1984)*

# Megatrends 1984

- John Naisbitt predict information society:
- ...*“i” society start in 1957,*
- ... *problem of selection:*

The Google logo is displayed in its characteristic multi-colored font (blue, red, yellow, blue, green, red).

future

About 1,050,000,000 results

# The New Capitalism (1986)

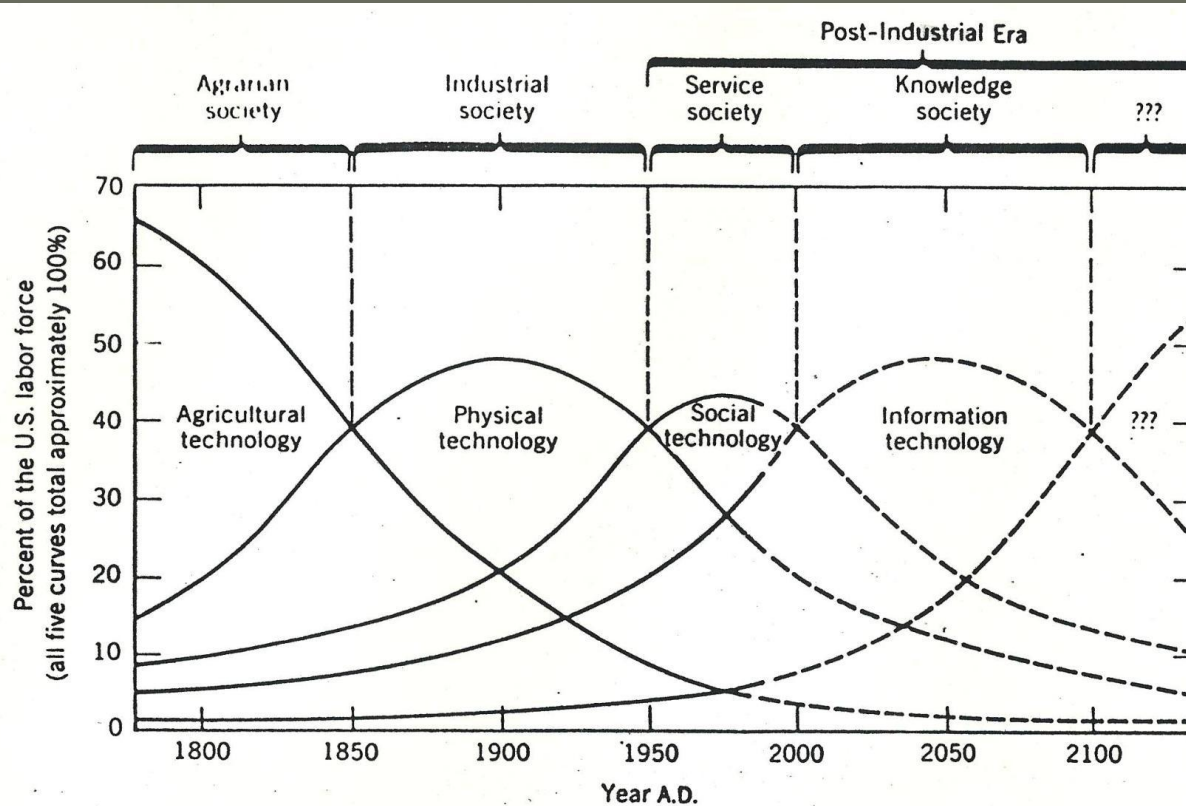


Figure 2-1. The evolution of technology.

Source: "The Life Cycle of Evolution," *Technological Forecasting and Social Change* (forthcoming).

Source: W. Halal 1986



# Important Trends for the Future

*John Naisbitt :*

*More art and spirituality.*

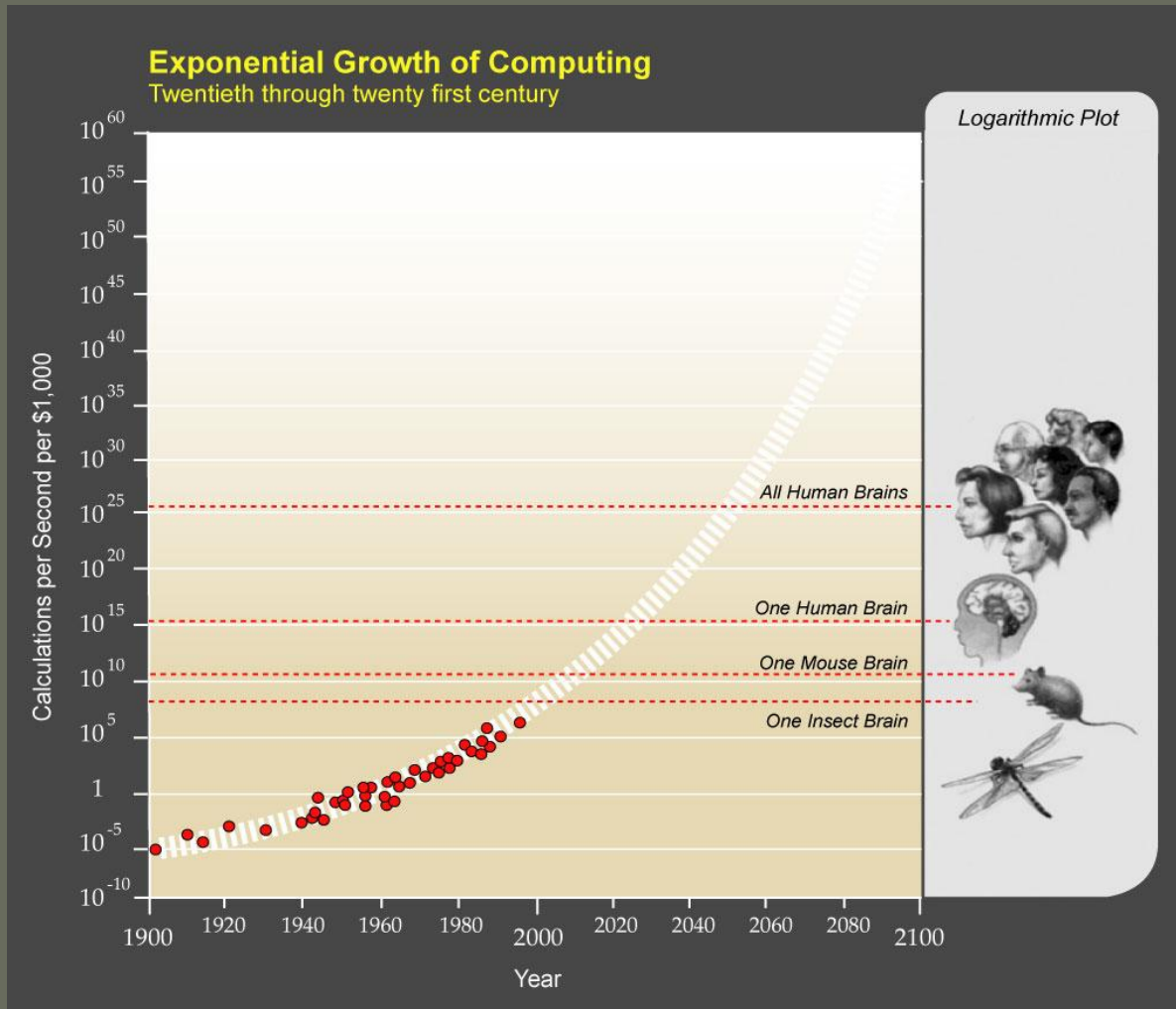
*Carl Johan Calleman:*

*Consciousness and co-creation.*

# Singularity era.

- *It based on exponential growth*
- *Where the “returns” of an evolutionary process, the speed, cost-effectiveness, or overall “power” of a process increase exponentially over time.*

# Exponential growth (2005)



Source: R. Kurzweil 2005

# Singularity era.

- *Technological and biological evolution*
- *Shrinking transistors on an integrated circuit as an approach to making more powerful computers provides exponential growth until the method exhausts its potential. When this happens, will shift a fundamental change in the approach.*

# About human capability



# About Human Capability



# About Ecology



*Consciousness*



# About Ecology



*Technological and biological innovation*





# Climate Change



*Replace  
fossil fuels*



# Singularity – a great promise





**Thank you.**