

# **Evolutionary Economics in an era of Intellectual Monopolies and Techno- nationalism**

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Bengt-Åke Lundvall

Aalborg University

# Freeman's 1995 paper on how to understand historical evolution

Chris Freeman argues that long-term economic growth and structural transformation must be understood as the outcome of co-evolutionary dynamics among five interdependent subsystems: science, technology, economic institutions, political governance, and socio-cultural values.

Innovation alone is insufficient; sustainable progress requires coordinated change across knowledge systems, infrastructure, policy regimes, and societal norms. Need for holistic, non-linear model of development laying the groundwork for systemic approaches to understanding innovation and societal change.

He indicates that the next step must be to bring in co-evolution with NATURE as a system.

Source: Chris Freeman, 'History, Co-Evolution and Economic Growth', *Industrial and Corporate Change*, Volume 28, Issue 1, February 2019, Pages 1–44

# Evolutionary understanding of the emergence of the new world order

- Interaction and co-evolution between state, technology, organisational
  - **State intervention** in the US and China laid the ground:
    - The US weakening of anti-trust combined with extension of Intellectual property rights
    - China's establishing of digital firewall and move toward independent innovation
  - Hyper scale effects emerged through **self organised market processes**
    - Machine learning
    - Organisational innovation – platform enterprises
- Resulted in
  - Geo-political conflict between the US and China – digital dependence of Europe.
  - Tech giants operating as intellectual monopolies and major global actors
- **State intervention** to rein in the power of tech giants but also mobilizing them in geo-economic conflicts.
- Source: Rikap, C., and B. A. Lundvall. 2021. The Digital Innovation Race: Conceptualizing the Emerging New World Order.

# The role of AI in global transformation process

- AI has the potential to transform innovation systems. It is a general-purpose technology with the potential to transform processes of learning and innovation (Cockburn et al 2017; OECD 2019).
- A few tech giants play a key role in organizing and directing research in artificial intelligence
- The combination of techno-nationalism, concentration of the research and privatization of knowledge is a major problem, especially since artificial intelligence has a great potential to address global challenges.
- AI can be used to map the process of climate change and to foresee major ecological events and catastrophes. It can also be used in transport planning at the city level, or globally, reducing CO2 emissions.
- Evolutionary economics should revise its current understanding of intellectual property rights, anti-trust policy and the role of the state to cope with global challenges

# Power Dynamics in the Second Phase of Digital Transformation

As we move into the second phase of digital transformation, characterized by the consolidation of technological capabilities and the dominance of global tech giants, it is imperative for evolutionary economists to deepen their focus on power relations.

The scale, reach, and influence of corporations such as Microsoft, Amazon, Google, Meta, transcend traditional market boundaries, reshaping not only economic competition but also governance structures, cultural norms, and geopolitical landscapes.

This phase is not merely about technological adoption and innovation – it is about the structural reconfiguration of economies and societies under the weight of concentrated digital power.

Evolutionary perspective must go beyond ‘economics’ – requires a renewed focus on imperialism and state monopoly capitalism.

- Thanks for your attention