

Global Digital Value Chains and Competition Law

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“Drastic” innovation & Global Value Chains

- Development of General Purpose Technologies in the IT sector
- “Growth bottleneck”: Technical choices made in early periods constrain the choices made later.
- “Dominant vendor” or lead firms – not challenged by new technologies in direct competition with the lead firm but by firms attempting to meet unserved demand outside the original GPT cluster [Bresnahan & Yin (2016)]
- Global allocation of labour and capital in the context of Digital GVCs

Characteristics of a Value Chain

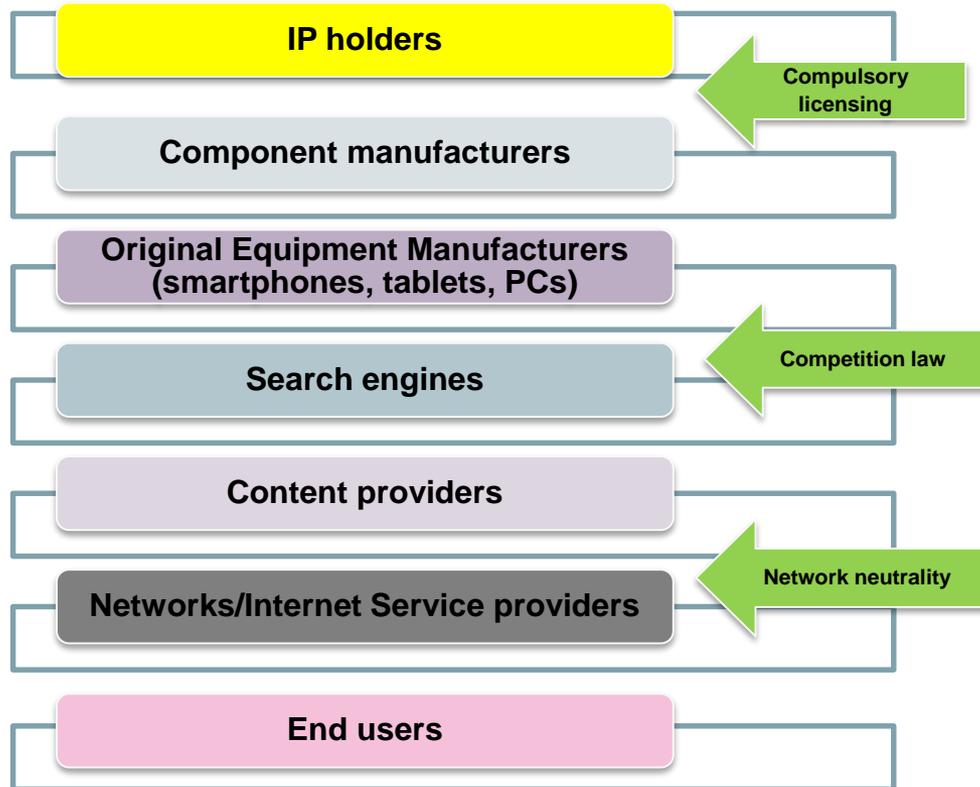
- Systemic, coordination-driven
- Embeddedness of linkages between actors
- Transnational production

Six Dimensions of the GVC Analysis



Digital Value Chains

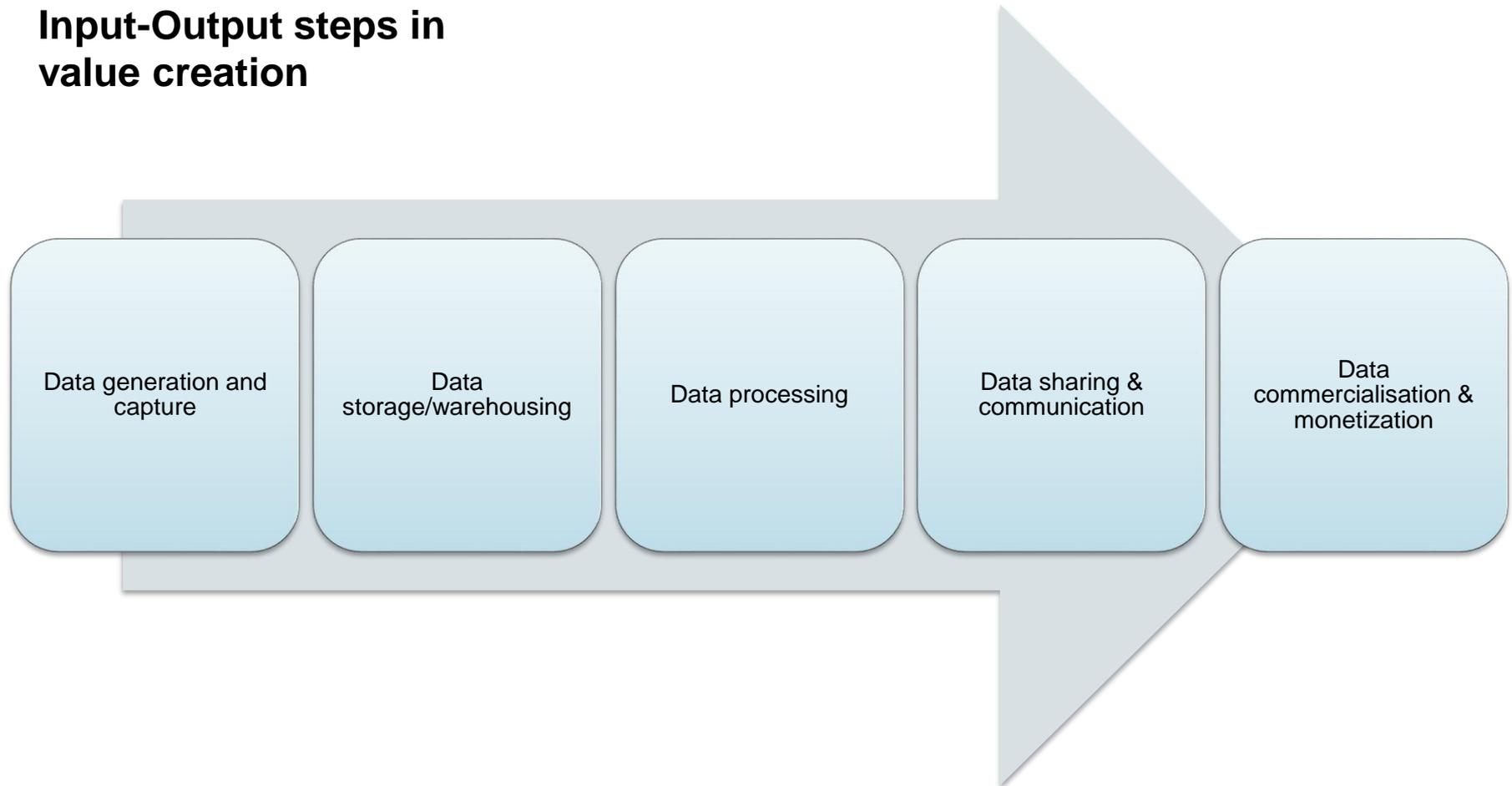
An illustration



- *Market power in multiple segments of the chain*
- *Co-opetition (frenemies)*
- *Allocation of the total surplus value of the value chain: vertical competition*
- *Extraction of revenue: limiting the market power of other segments of the value chain to increase your share*
- *Different ways of public action (competition law, net neutrality, compulsory licensing, regulation)*
- *Competition for capital*

Is the consumer still at the end-point of the global data value chain?

Input-Output steps in value creation



Follow the value

Financialisation & global markets

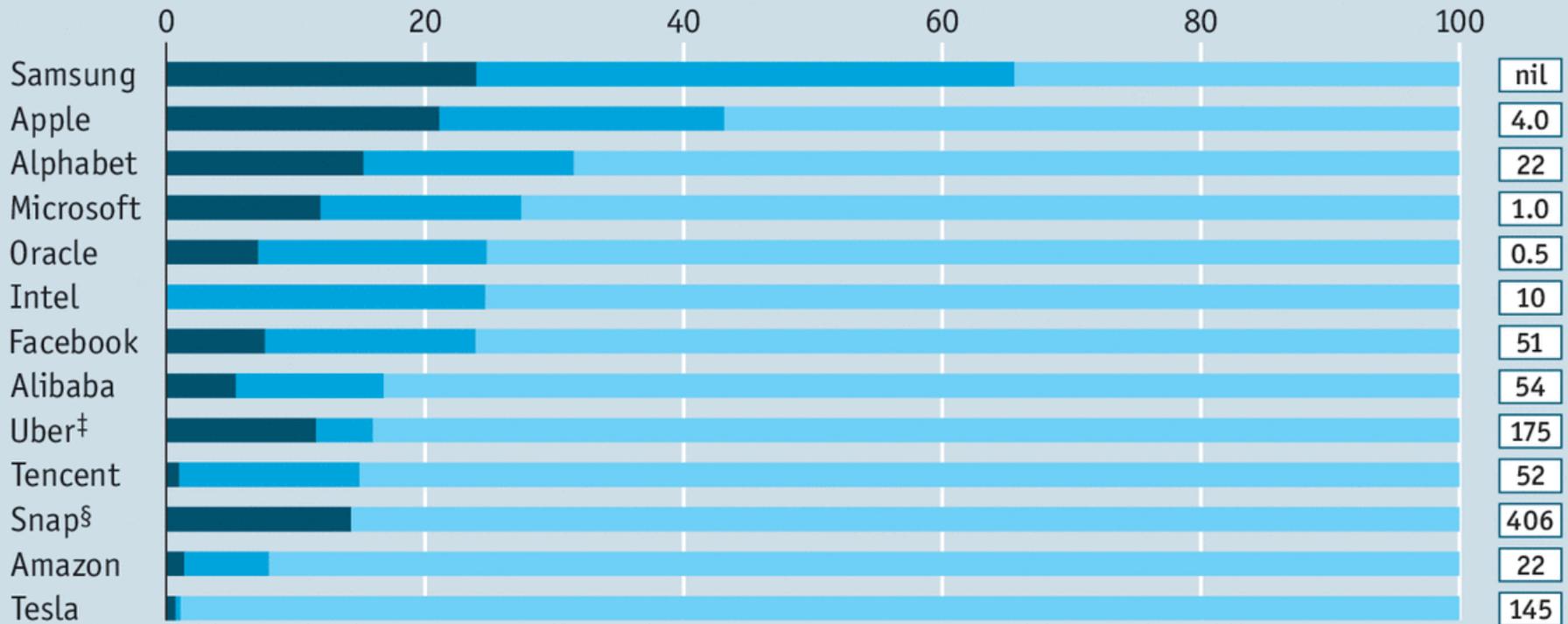
“Shares of technology firms trade on their highest ratio to sales since the turn of the century”

The good, the mad and the ugly

Market value of technology firms, %

Comprising: ■ net cash ■ profits*: ■ until 2020 ■ after 2020

Sales, % increase on a year earlier[†]



Sources: Bloomberg; company reports

*Present value †Latest ‡Implied by latest funding §Reported IPO value

The distributional effect of digital value chains and “disruptive innovation”

- Should we only focus on consumers?
 - “Algorithmic” consumer as the “*ligne Maginot*” to the algorithmic seller
 - Relatively simple solutions?: Prohibition to vertical downstream integration in certain cases?
- Important trans-jurisdictional wealth transfers and drive towards global concentration
 - Will data and algorithmic capability win every “local” knowledge and “domain expertise”?
 - More concentration, less focus
 - “Gosplan 2.0”?: sensors, algorithms, databases, socio-metrics: beyond the price system
 - From local to global oligopolies/monopolies? Is this “disruptive” innovation?
 - E.g. From travel agents to OTA
 - E.g. From local stores to global marketplaces
- The bigger picture: digital platforms and industrial policy
- Should competition law facilitate and promote “productivity enhancing asset redistribution”

IP rights & Innovation

- Scientific progress
- Dynamic efficiency and increase of the total factor productivity
- Incentives to invest in technology

Privacy & Data protection

Regulation

- Rules with regard to the collection, processing, storage, usage and portability of personal data

Polycentric competition law

The broader public interest

- Fair Access to Technology - a level playing field for comparable digital services
- Digital agenda and the Single Market
- Industrial policy

Consumer welfare

- Affordable prices & large output
- Higher Quality
- Freedom of consumer choice
- Open and non-discriminatory markets in a data-driven economy

Some research <https://www.ucl.ac.uk/cles>

- Ioannis Lianos & Riccardo Savona Siemens, Digital Value Chains and Competition Law (UCL CLES Research Paper 02/2017 forth.)
- Ioannis Lianos, Polycentric Competition Law (UCL CLES Research Paper 03/2017 forth.)
- Ioannis Lianos, Global Value Chains in Competition Law (UCL CLES Research Paper 04/2017 forth.)