Virtual Competition

UNCTAD Research Partnership Platform

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The Dynamics of Competition

The Promise of the Algorithm-Driven Economy

- Transparency and flow of information
- Lower Search Costs
- Dynamic competition
- Entry and Expansion
- Dynamic pricing
- Disruption and Efficiencies

- The Rise of Big Data and Big Analytics
The Perils of the Algorithm-Driven Economy

Competition, as we knew it -- the invisible hand of competition -- is being displaced in many industries with a digitalized hand.

- Collusion
- Discrimination
- Frenemy
The Collusion Analytical Framework

- The Messenger Scenario
  - The Algorithm as an Intermediary
- Hub and Spoke
  - Intentional and unintentional use of algorithms to align price.
  - *Eturas and Others*
- Tacit Collusion on Steroids: The Predictable Agent
  - *Fast* predictive & similar analytics
  - Adopt a similar approach to Mergers review?
- God View and Artificial Intelligence
  - Big data and big analytics
Behavourial Discrimination

- Price Discrimination and dynamic pricing.
  - Differential pricing and limited arbitrage

- Limitations to perfect discrimination.
  - Insufficient Data
  - Predictability and (Ir)rationality

- Controlled Ecosystems: The Truman Show

- The Rise of “Almost Perfect” Behavioural Discrimination
  - Over 100 biases, ...
  - Decoys, price steering, complexity, drip pricing ...
Frenemies

- The Dynamic Interplay among Frenemies
- Extraction and Capture
- The Gatekeepers – The rise of super platforms and how Data-Opologies can abuse their position.
- The Digital Butler
The Purist Butler

Entry barriers - data-driven network effects:
- Traditional Direct network effects.
- Spill-Over network effects.
- Trial-and-Error (learning by doing).
- Scope of Data.

Leverage the power of the super platform

“The goal is to build a personal Google for each and every individual”
But what about disruptive innovation?

The formidable market forces will fix it,…

‘In Silicon Valley a handful of giants are enjoying market shares and profit margins not seen since the robber barons in the late 19th century. “Competition is for losers” says Peter Thiel, a co-founder of PayPal, a payments system, and the first outside investor in Facebook.’

*The Economist*, Sep 17, 2016 (*The superstar company*)

Intellectual capture

Defenses used to shield the giants include: Network effects, interconnectivity, M&A, deep pockets,….
Enforcement

- **Competition law** -
  - Conceptual and practical challenges.
  - Identify the adequate level of intervention.
- **Privacy laws**
- **Customer Empowerment**
- **Ex-ante measures**
  - EU Commission ‘e-commerce sector inquiry preliminary report’
  - CMA ‘digital comparison tools’ market study and possible subsequent market Investigation.
  - OECD, EDPS, House of Lords, Joint France/German Report
To what extent does the “invisible hand” still hold sway?
What are the effects on choice and competition?
The end of competition as we know it.
In markets continually manipulated by bots and algorithms, is competitive pricing an illusion?
How ‘stable’ or ‘sponge-like’ is our competition law analysis?
As power shifts to the hands of the few – what are the risks to our democratic ideals, and our economic and overall well-being?
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THE PROMISE AND PERILS OF THE ALGORITHM-DRIVEN ECONOMY

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