

# A.I., Law and Ethics

## Session 3

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# Innovation in Digital Ecosystems: Challenges and Questions for Competition Policy

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# 5. Considerations for the Competition Policy

# Considerations for the Competition Policy

The dynamics of digital markets reveal a paradox:

- On the one hand, digital ecosystems are characterized by a **pace of innovation rarely seen in economic history**. Indeed, an industrial revolution is underway with the development of breakthrough technologies such as artificial intelligence, advanced robotics, 5G and quantum computing, to cite just a few.
- Not only are innovations driven **by large companies** - the keystone players (Iansiti and Lieven, 2004) -, but they are also developed **by companies that are smaller** participants in their ecosystem, the so-called complementors. Thus, if innovations are produced by diversified players that can adapt to the various user profiles, they are compatible with each other.

# Considerations for the Competition Policy

- On the other hand, the same trends can also be understood with a **less optimistic perspective**.
- In the latter context, innovations developed by **keystone organizations in the technology sector would be mainly aimed at consolidating their dominant positions and extending them to adjacent markets**.
- The long-term counterpart of the gains for consumers would be a strengthening of the competitive foreclosure of dominant positions and their extension to related markets.
- This would be to the detriment of both competitors and firms participating in the ecosystems of the platforms themselves.

# Considerations for the Competition Policy

- The model of open digital ecosystems is usually based on three elements:
  - 1) complementarities between players,
  - 2) the pooling of resources and
  - 3) the facilitation of innovations developed by complementors.

# Considerations for the Competition Policy

The literature interested in market competition is increasingly focused on two important questions:

- 1) the damage to innovation that can result from the strategy of dominant firms and
- 2) the damage to trading partners that can also stem from these strategies.

# Considerations for the Competition Policy

- The acquisition strategy is not systematically negative for the consumer in terms of welfare.
- Indeed, the very investment capacities of dominant operators, their technological resources and advantages of size and scope combined with the network effects the dominant platforms have at their disposal may lead these “potential” innovations initially developed by complementors being improved and proposed at a much lower price, if not free.

# Considerations for the Competition Policy

- However, two competitive harms remain: the reduction of consumers' freedom of choice and possibly the freedom of competitors to enter the market.
- Indeed, there is an alternative to takeover to eliminate an innovative competitor: that of anti-competitive foreclosure. This can be done through cloning innovation, through predatory strategies such as tying or, when the target firm can only access the market through a key gateway, the dominant platform, a strategic reduction in interoperability.

# Considerations for the Competition Policy

- A key point is that these strategies for eliminating potential competition can also be implemented within digital ecosystems.
- Relationships with complementors can be characterized by both cooperative and non-cooperative logics. A platform can be encouraged to supplant its own complementors. It can implement such a strategy all the more easily if it controls access to the market and to the key resources of the ecosystem, and if it can detect potential competitive opportunities and threats even earlier.
- The platform not only controls a critical infrastructure but also enjoys a decisive informational advantage over its complements, as illustrated by the formal procedure opened in September 2018 against Amazon by the European Commission.

# Considerations for the Competition Policy

What are the advantages of the platforms vis-à-vis their complementors?

They are at least fourfold:

- 1) the capacity for early detection (nowcasting),
- 2) the financial capacity necessary for external growth,
- 3) the market position that makes anti-competitive foreclosure possible and
- 4) finally the technical, financial and human capacities to outperform third parties in terms of innovation.

About the latter point, these capacities are amplified by the two-sided business model, the advantages linked to network effects and the economies of scale and scope. Innovation and hence the competition process itself can be hampered by this economic power, which has the effect of making the market less and less contestable. Moreover, the development of artificial intelligence and quantum computing could further strengthen the advantage of dominant firms in informational and computational terms.

# Considerations for the Competition Policy

- The scenarios of “damage to innovation” and “damage to trading partners” could then be confirmed.
- However, how can we assess the effects of digital ecosystems on innovation incentives both for the dominant platform and for the other members of its ecosystem? Will the former benefit from a right to be lazy and the latter be discouraged from innovating? This is precisely the main question of this article.

# The Competition Law Issues

- Is the market position gatekeeper and structuring platforms still contestable?
- Are contractual relationships with complementors unbalanced at the expense of their capacity to innovate?
- Could the core structure of innovation altered by such a situation?
  - Incremental innovations rather than radical ones?
  - Disruptors kill zone through M&A and exclusionary practices?
  - Lock-in reinforcing or predatory innovations at the detriment of consumers and complementors?
- How to prevent and how to remedy to such situations?

Conclusion

# Conclusion

- Platforms' economy might be characterized by an increasingly concentrated market power and perhaps a less and less contestable one
- A damage difficult to characterize in terms of efficiency (zero-price models, exceptional pace of innovation...) but some concerns related to damages to innovation (radical one), trading partners, consumer freedom of choice, and perhaps market process itself
- A trade-off between short terms efficiency gains and long-term alleged risks
- Some classical debates in the history of competition law and economics
  - Fairness vs. efficiency
  - Liberty to access the market as a value in itself
  - Scope of essential facilities (platforms, data,...) and impact on incentives to invest and to innovate
  - False negative vs. false positive



# References

# References

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