

# The dynamics of the digital ecosystems, proprietary vs. open source approach

## *The business ecosystem logics*

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“Towards a network of digital ecosystems: which technology, which research and which instruments ?”

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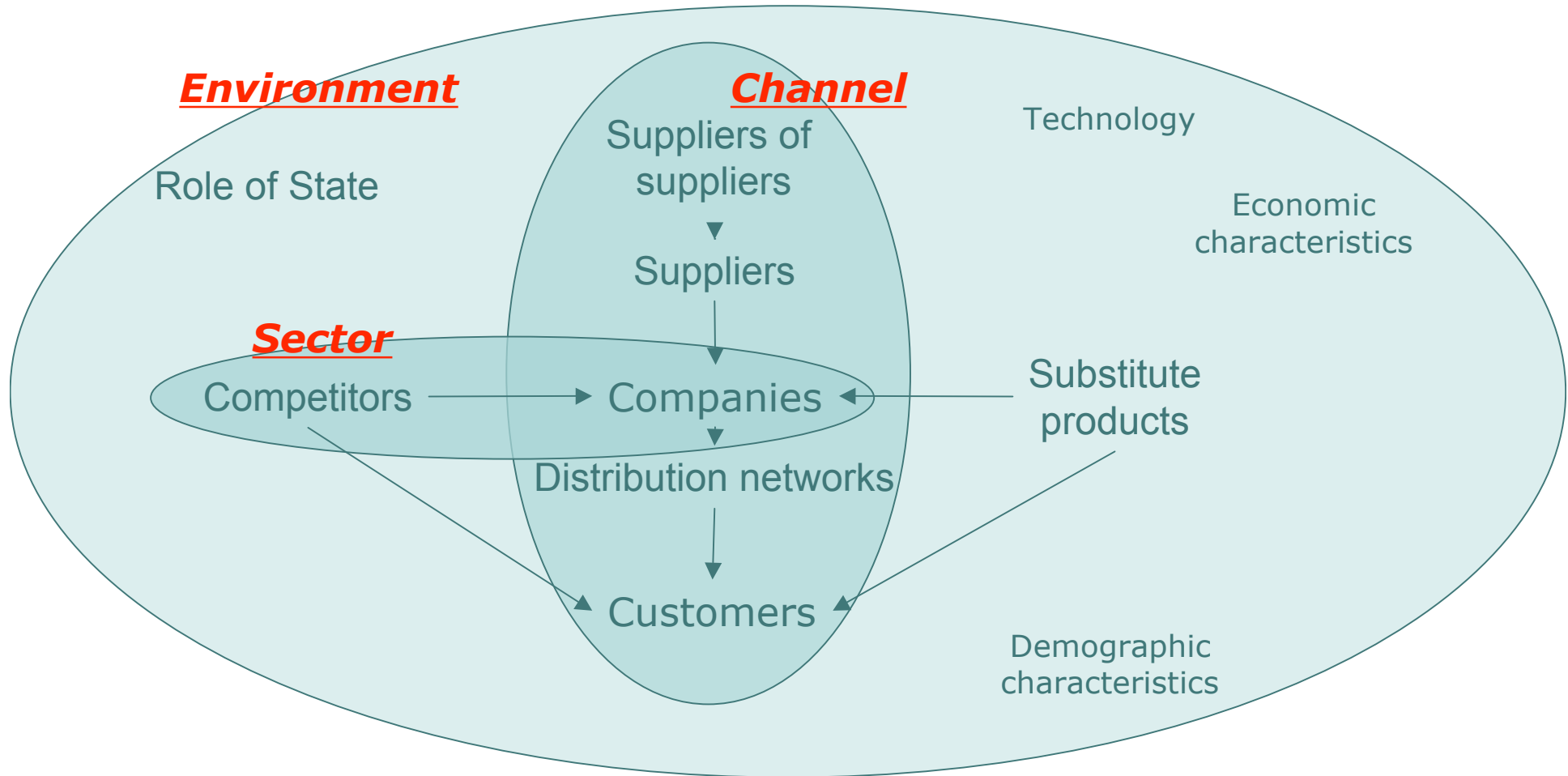


# Purpose

- Understanding the Business Ecosystems logics
- Use of the opposition Microsoft / Linux to explain the Business Ecosystems dynamics



# What is companies' strategic situation ?





# Current context of evolution

- ➡ ○ Companies have multiple relationships with external "partners"
- ➡ ○ These relationships can be direct or indirect, formal or informal
- ➡ ○ The "partners" are not only companies
- ➡ ○ These relationships link several branches of industry
- ➡ ○ The "partners" pursue a common goal



## Current context of evolution : New models of analysis

- The strategic analysis must take into account these external elements and their dynamic
- Insufficiency of current tools in strategic management
- Which types of relationships?



# Which types of relationships?



## Verticals relationships:

- Channels
- Suppliers – Customers
- A direct complementarity
- Cooperation
- Subcontracting



# Which types of relationships?



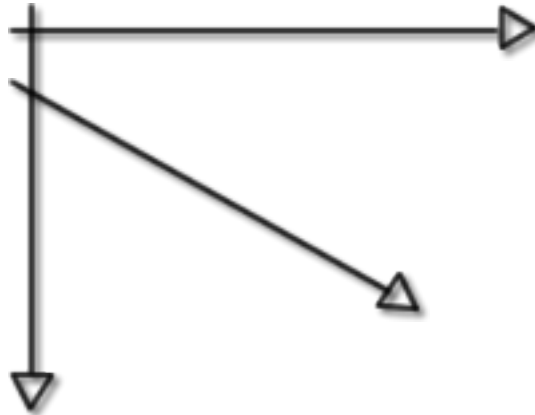
Horizontal relationships:

- Sector, industry
- Competitors
- Substitutability
- Competition but also cooperation
- « Coopetition »

*Cooperation + Competition*



# Which types of relationships?

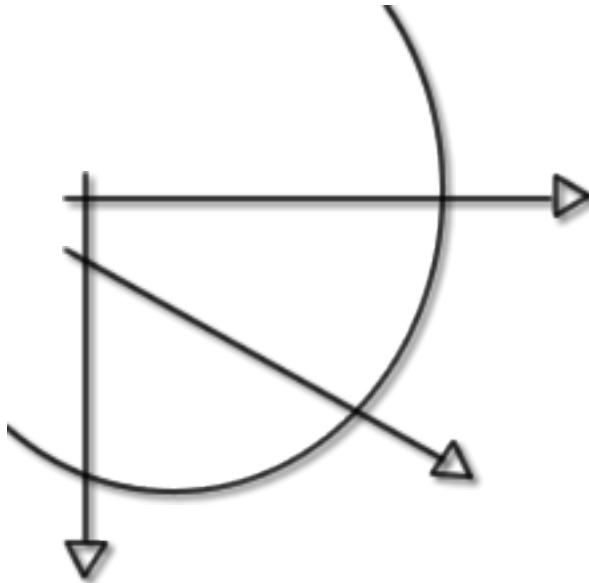


Transversal relationships:

- Nor complementarity, nor direct substitutability
- A common goal
- Agreements between sectors



# Which types of relationships?

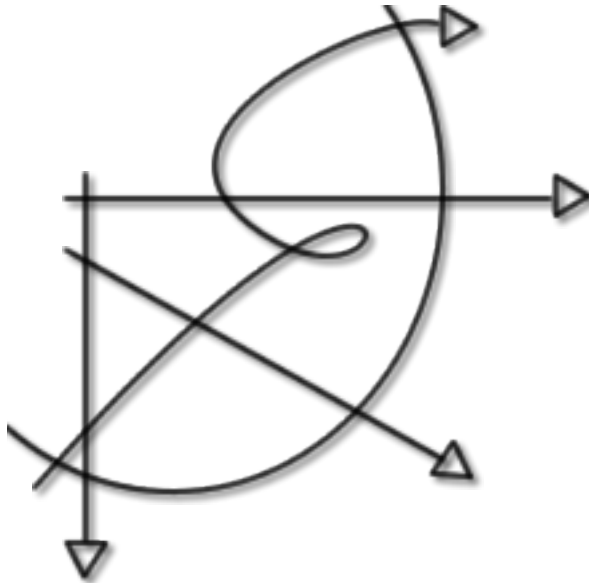


Intangible relationships:

- A common culture
- Behavior standards
- Informal and Indirect



# Which types of relationships?



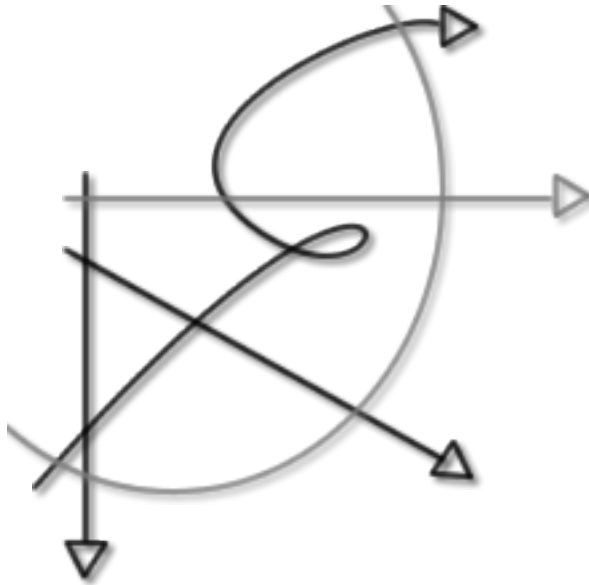
Vertical relationships  
+ horizontal relationships  
+ transversal relationships  
+ intangible relationships

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Synergies



# Which types of relationships?



Companies evolve within a **Business Ecosystem** :

- A logic of global analysis with its multiple partners
- Gestalt theory

Need a “platform” (services, tools, or technologies) to manage the business ecosystem



# The Business Ecosystem concept in Strategic Management

- James Moore (1993 Harvard Business Review ; 1996, « The Death of Competition »), uses the ecosystem metaphor in the business world
- IT companies use this concept to promote their products (Cisco, SAP,...)
- For a few years, several scientific works have tried to better understand this concept
- We will identify the main rules



# The main rules

- A standard or a know-how is used by several companies. That will make it possible to develop one or more central competences.
- The companies using these competences will constitute a strategic community of fate on the principle of the Co-evolution.
- The companies search an network effect (the increasing value of a product or service as the number of people using it grows)



# The main rules - leadership

- One (or several) companies will have the role of leader.
- The company leader will have to develop a vision shared by the other members of the Business Ecosystem
- The leader will guide the central competences
- The leadership can evolve and have an influence on the business ecosystem evolution



# The main rules - keystone

- The crucial role of “keystone” organizations
- « Keystone can increase ecosystem productivity by simplifying the complex task of connecting network participants to one another or by making the creation of new products by third parties more efficient » (I&L-03)
- Keystone : a value dominator
  - Higher complexity of relationships
  - Higher level of turbulence and innovation



## The main rules - diversity

- Actors of a Business Ecosystem are heterogeneous (companies, institutions, trade unions, special interest groups...)
- Actors of a Business Ecosystem come from different industries. There is a convergence of industries.
- A company can belong to several Business Ecosystems



## The main rules - competition

- There is an strong competing dynamics on the intra-ecosystem level (to acquire the place of leader);
- There is also a strong competing dynamics on the inter-ecosystem level (competition between Business Ecosystems);
- “Coopetition” is necessary to the development of a Business Ecosystem



# Competitive dynamics between Business Ecosystems

- Example of the opposition Microsoft / Linux
- Two perspectives but only one explanation : a development in terms of Business Ecosystems
- Study of Linux and Microsoft development in a preceding work

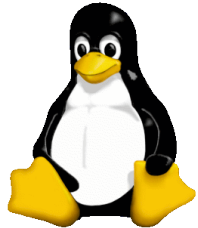
*(Gueguen G. et Torrès O. (2004), "Fondements et dynamiques concurrentielles des écosystèmes d'affaires : l'exemple de Linux contre Microsoft", Revue Française de Gestion, janvier-février).*



# Competitive logics

## Microsoft vs Linux

- Two very different models for the same product : Operating Systems
  - Initial mode of constitution
  - Mode of coordination:  
“the Cathedral and the Bazaar”
  - Strategic mode of development
  - Proprietary vs. open
  - A threat for Microsoft in terms of expectations modifications:
    - Customers, suppliers, "stakeholder“, legislation...





# Birth and life of a Business Ecosystem

- Microsoft Windows: series of agreements, break-ups, aggressive competing behaviors, lawsuits with multiple actors, hegemonic behavior
- Linux: 1991 Linus Torvalds, free development, development of activities by new or established companies



## Intra-ecosystemic competition: search for leadership

- Confrontation of Microsoft with IBM, complementarity with Intel, series of co-operation and competition (IBM, AOL, Apple,...): coopetition
- For Linux, various actors play a driving role
- The companies feel threatened by the power of Microsoft and seek an alternative



## Inter-ecosystemic competition : To impose a standard

- “Enemies” of Microsoft will support the development of Linux (Sun, Oracle, IBM)
- Fight between lobbies (BSA vs CCIA)
- Linux is identified since 1998 as an important threat for Microsoft
- The traditional economic model of the software (proprietary) is modified (open)



# Conclusion

- The logic of the Business Ecosystem exists for proprietary as for open source

Business Ecosystems Rules	Proprietary	Open source
Leadership	+++	+
Community	+	+++
Keystone and platform	+++	+
Shared central competences	+	+++



# Conclusion

- Importance of competition
- A Digital Ecosystem (like a Business Ecosystem) needs competition as much as cooperation
- But it deals with competition on a common interest basis
- This type of competition maintains the players' contribution



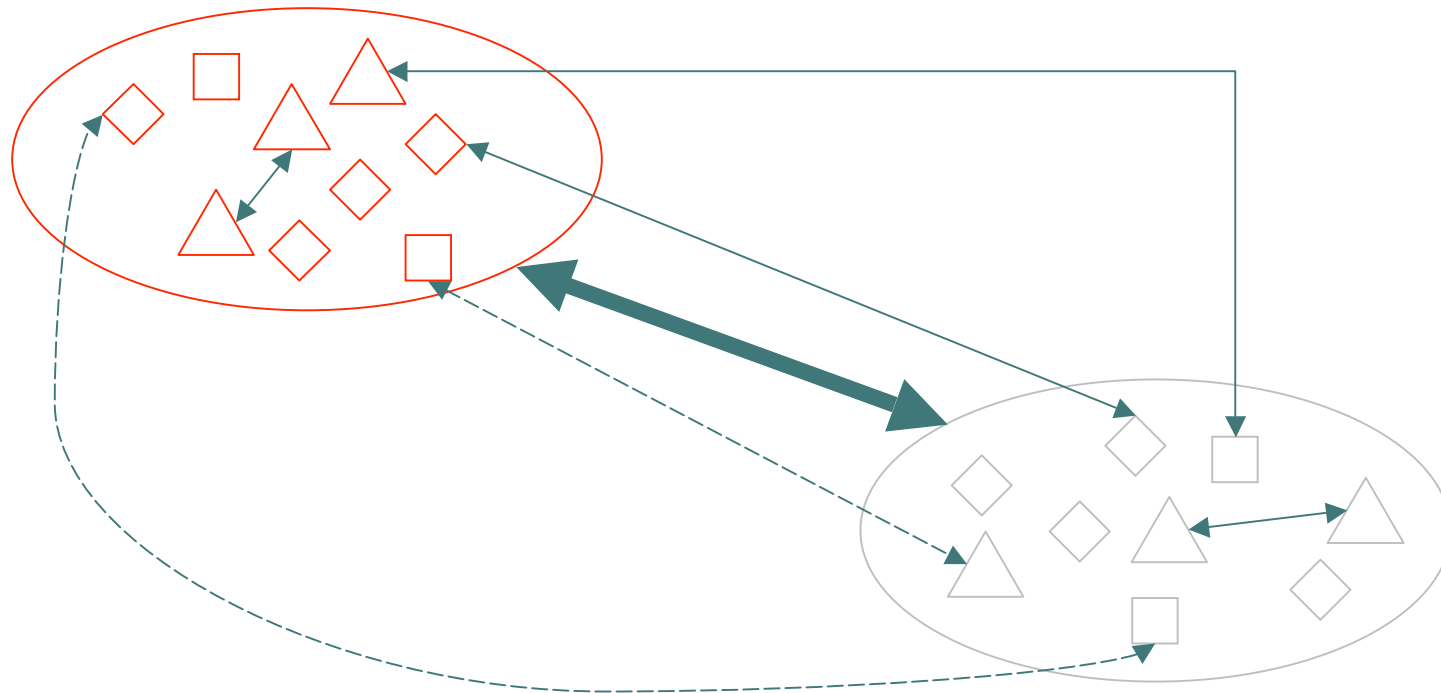
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# Competing logics

Business Ecosystem A



Business Ecosystem B



# Competitive logics

