The Radical Shift:
From Industry to Ecosystem

A New Paradigm for
Innovation-driven Global Markets
Abstract

An increasing problematic of the present economic structure is the thinking in terms of industries. As research has shown, industrial structures are dissolving and together with this dissolution theoretical frameworks developed during the era of the physical place become rapidly irrelevant in times of a dominant shift towards the virtual space. The new conceptual approach differentiates between dependent interactions of products, infrastructure and the ecosystem. This concept gains importance, if the present turbulences on markets and those within national economies want to be understood.

The ‘Gang of Four’ (Amazon, Apple, Facebook and Google) is continuously outperforming traditional enterprises, since they do not think in terms of outdated cost leadership or differentiation strategies anymore. Path-dependent organisational thinking creates problems in a world, which shifts towards keystone, niche and dominator strategies being based on platform innovation of the Internet. These developments require cross-functional research in which, e.g., biology is an important contributor towards the economic understanding of an ecosystem for which a precise definition is still missing.

This paper introduces to ongoing research which presently analyses and processes case-specific data, whose objective it is to lead towards a more precise understanding of the economic ecosystem.

Keywords: Ecosystem, platform innovation, keystone, niche and dominator strategies, industrial renewal.
The Core Problematic
(cited in Walton et al. 2011)

- ebooks are the single best-selling category in American publishing (AAP)
- Amazon’s Kindle e-book sales exceed hard covers (Financial Times 20.04.2011)
- By the end of 2012 Google’s Android OS will account for half of the world’s smart phone market seriously impacting Nokia/Microsoft (Gartner Research)

- In 10-15 years energy suppliers will be marginalised
- Conventional heating/boiler systems will disappear
- Physical disc sales will decline by $4.6b until 2014; replaced by streaming/digital downloads (Oestreicher. 2012)
- 3-D laser printers start impacting on manufacturing of plastic, wood and metal commodities
From Biological to Economic Ecosystem
(cited in Walton et al. 2011)

- **Biological environment** (Clapham cited in Campbell. 2008, Odum. 1971)
  - All interacting organisms living in a particular area
  - All nonliving physical components of the environment with which the organisms interact
  - … so that a flow of energy leads to clearly defined trophic structure and biodiversity and material cycles

- **Economic ecosystem** (Moore. 1993)
  - An economic community supported by a foundation of interacting organizations and individuals
  - [which] produces goods and services of value to customers, who are themselves members of the ecosystem.
  - Over time, members co-evolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies.
The Concept of the Internet-based Ecosystem
(cited in Walton et al. 2011)

- Globalisation and the Internet [are] the equivalent to large scale climate change and – according to Moore’s theory – companies [are] now embedded within this [business] environment (Gruber. 2001, Oestreicher. 2012)

- [e]volution on the Internet is no different from physical evolution but with vastly compressed life cycles and faster generic mutation (Dar. 1999)

  - But incumbent industries think in two dimensions: products and markets
Conventional Logic vs Value Innovation
(after Kim et al. cited in Oestreicher. 2012)

Conventional Logic vs Value Innovation

- Conventional Logic Red Ocean
  - Core activities (established RPV)
- Value Innovation Logic Blue Ocean
  - Disruptive Technology
  - Dissolution of the ecosystem by (external) toxic factors
  - Addition of (external) technologies
  - Consumer behaviour changes
- Industrial structure
Product Failure & Segmentation Design

Consumer markets:
- Geography
- Demography
- Psychography
- Behaviour
- (Attitudinal)

Business markets:
- Demography
- Operating variables
- Purchasing approaches
- Situational factors
- Personal characteristics

Reality(?):
“… customers don’t know what they want. They never will.”


(Brown cited in Baker. 2007 cited in Oestreicher. 2010.)
(Just) Angular Strategic Thinking

The crucial variable C: Consumers

* Blue Ocean: Value Innovation Logic
* Red Ocean: Conventional Logic
** TRIZ Theory

New solutions partly reducing the damage of the old system**

New solutions reducing the damage of the old system**

Free consumption = 0-economy

Platform-based innovation

Product improvements

Marginal

Weak

Market linkages

Strong

Radical

Blue Ocean*

Red Ocean*
Measurement of different performance

**Sustainable Innovation**
Improved products for established markets

**Disruption from the inferior end**
Consumer expectations are exceeded by a business model of lower costs

New market disorganisation

Competition against Non-consumption

Non-consumers
Context of non-consumers

New entrants introduce new paradigms by superior strategies = toxic infiltration

Trajectory of organisational improvements

Trajectory of consumer expectations

(after Christensen et al. 2004)
The Industry Paradigm

The ‘Old’ Industry Pattern

Collaboration: Customers as Marketing Objects

Control: Product
Microsoft, Intel, iPod, iTunes

Autonomy: Infrastructure
Microsoft + Intel
iPod + iTunes
The Shift

Collaboration: Ecosystem

Platform
Internet

Control: Product
Autonomy: Infrastructure

Innovation

Collaboration: Interaction of all Participants

Ecosystem

Control: Strategies
Autonomy: Creation of Values

Eco
Innovation:
- Especially process

Imitation:
- Parallel developments

Invention:
- None

Collaboration:
- Orientation towards the known
- Orientation towards daily business
- Indicators for internal rivalry

Control:
- Of the known
- Rejection of new ways
- Change does not take place
- Defending of the “créneau”

Global perspective
- Local sensibility

Autonomy:
- Process
- Known customers
- Prolongation of achievements
- Protection of RPV

Transformation
Degree of innovation
Revolution

Radical
Quality (business as usual)

Incremental
Process
Result of work
Business model

Dimensions of innovation

(Oestreicher, 2012)
Conclusion

Persona: Who are we?
- An established industry

Puzzle: What surprises us?
- The dissolution of our ecosystem

Performance: What do we measure?
- Manufacturing by established resources, processes and values

Paradigm: How do we compete?
- By a double two-front war
  - Marginal vs radical innovation
  - New entrants with superior strategies vs established RPV

Technology:
1. Physical place vs virtual space
2. Path-dependency vs disruptive technology

Market linkages:
1. Dissolution of the ecosystem
2. New entrants’ and consumer innovation

Control = lost

Autonomy = shift of power

Collaboration = discontinuous

(after Keidel. 2010)
Bibliography


