A cross comparison with the book publishing industry

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“Models of innovation in the Creative and Content Industries: Inspiring insights from the Cinema industry”

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The book publishing sector: the oldest subsector of the MCI
Contrary to the music and film sectors, where supports have changed several times over the last decades, the book industry still cares for a secular reference model…
The specific case of book publishing

- Innovation in the publishing industry used to be incremental rather than radical
  - A low growth business
  - Secular printing economic model

- The revolution of the Internet and ICT
  - Emergence of e-books, tablets…
  - New actors appear in the value chain

- New strategies and business models supported by e-readers and tablets
  - Zero marginal cost of producing additional books
  - New intermediaries and distribution processes
  - Unusual competitors
  - Management of digital rights and protection
The emergence of the e-book revolution

- Book publishing industry: traditional and low growth business
- Internet and ICT revolution: unusual disruptive and radical impact
- 2001-2004: first e-reader projects failed (heavy and low technology advanced materials, very high price)
- Implementation of new materials in new e-readers, specific reading software...

It is interesting to identify the successive technological developments
ICT publishing technologies milestones

- Designing a new digital ecosystem
  - Huge - and unused - investments for the publishing houses
  - e-book is an emerging and still undefined model
  - New technical skills and know-how
    - interoperability
    - specialized software expertise
    - management of new commercial relationships
    - new methods of digital marketing and distribution

- Pervasiveness of ICT in publishing value chain
  - Digitization of the editorial process
  - Self publishing
  - Printing on demand
  - On line distribution
  - E-commerce of traditional books
  - Content brokering
  - Retail efficiency

- The focus and structural dimension of e-books
  - Content (information)
  - Composer (software necessary to create an e-book)
  - Container (the distribution medium and/or file format)
  - Storage
  - Access (the technology and software used to provide access to the content)
  - Distribution platform (Apps) for Electronic books
Where and how R&D takes place in the book sector?

- Which economic actors are taking charge of R&D?
- Where they are located in the value chain and the culture ecosystem?
- How they are articulated with content production and producers?
Methodology for empirical analysis

- Systematic exploration of R&D concerns
  - technical documents and Internet websites

- Face-to-face interviews
  - publishing houses and technology professionals

- Cartography of the value chain and longitudinal study of the e-book publishing sector
  - analytical coding
  - main characteristics of all the versions of the most diffused e-readers and tablets:
    - Kindle, Kobo, Nook
  - Multiple layer mapping
    - Six main structural and technical layers
    - adapted from the classical Open Systems Interconnection (OSI) reference model, used in telecommunication and Internet economy
Significant outputs at every layer
### Level 1: Operating systems standards
A key role of e-ink and Electronic Paper Display

<table>
<thead>
<tr>
<th>Developer of E-ink and EPD</th>
<th>E Ink Corporation (US), Polymer Vision (the Netherlands), Plastic Logic (UK), PVI (Taiwan), SiPix (US), Bridgestone (Japan)</th>
<th>World's First Tablet Sized Flexible EPD (2005)</th>
</tr>
</thead>
</table>

- Aiming at imitating the look of physical print on paper
- Reducing energy requirements and autonomy
- Flexible technology adapted to various surfaces
Level 2: Terminals and hardware

Competition between e-book readers and tablets

- Softbook (1998)
- Franklin eBookMan (1999)
- Cytale Cybook (2001) project failed in 2002
- Sony Librié (2004) project failed
- Sony Reader Portable Reader System (2006)
- iRex iLiad (2006) project failed in 2010
- Apple’s iPhone (2006), Apple’s iPad (2010)
- Sony PRS-700 (2008)
- Polymer Vision Readius cell phone/e-reader (2008) project failed
- Barnes&Noble Plastic Logic Que eReader (2010)

Emerging price concerns
Versionning
Memory size
Interoperable formats
Sound
Enhanced books and book-apps
### Interactive technologies ; Developing interactions with consumers through social networks ; Consolidating competitive position through partnerships and consortia

**Level 3: Standards and software: the intermediary role of blogs, social networks, platforms, consortia and partnerships**

<table>
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<tr>
<th>Internet intermediaries Platforms</th>
<th>Publishing Blogs, Wikis, social networks</th>
<th>Platforms/Editor Consortia Partnerships</th>
<th>2010 Edigita (Rizzoli, Gruppo Gems, Feltrinelli), Italy</th>
<th>Standards</th>
<th>Internet Service Providers</th>
<th>Software</th>
<th>Content producers: terminals + content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards and Software</td>
<td>Goodreads.com</td>
<td></td>
<td>Eden (Flammarion, Gallimard, La Martinière), France</td>
<td></td>
<td></td>
<td></td>
<td>Sony TimeBook Town, Panasonic Words Gear</td>
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<td></td>
<td>Bookish reading club</td>
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<td>IZNEO Project (a group of French publishers specialized in the Graphic Novel segment)</td>
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<td></td>
<td>Scribd.com</td>
<td></td>
<td>Libranda (Planeta, Santillana, Random House Mondadori), Spain</td>
<td></td>
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<td></td>
<td>Saas or Cloud-Based Book Publishing models: Smashwords, Lulu, Blurb companies</td>
</tr>
</tbody>
</table>

- Digital Content
- Web enabled businesses
- Standard

- Standard
- Software
Level 4: Infrastructures and networks: the role played by connection to consumers

- Aggregating and distributing contents with collective platforms
- Promotion and marketing initiatives; Print on Demand
**Level 5: Middleware**: economic structuring and piracy concerns

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<tr>
<th>Middleware</th>
<th>Tools against piracy</th>
<th>Encryption</th>
<th>Digital asset management (DAM)</th>
<th>Digital rights management (DRM)</th>
<th>Digital object identifiers (DOI)</th>
<th>Privacy matters</th>
</tr>
</thead>
</table>

- Encryption, DRM, digital object identifiers
Level 6: terminals and users: technical interface and ergonomy

- Accessibility for disabled
- Green technologies
- Innovative business models
Conclusion (I): the publishers’ strategies v. hidden innovations

- Each layer is supporting specific strategic perspectives
  - Positioning, price, interaction with consumers…

- R&D and innovation are leading this evolutionary process
  - But publishers are not well aware of this
  - No willingness to build a model for using efficiently these innovations

- Publishers’ strategy is focused more on maintaining their secular place in the book value chain
  - An adaptation-imitation process
  - Follow the market needs without playing an effective role of leaders
  - New commercial strategies depending on the new technologies demand rather than updating their role to the new environment and changing cultural habits
  - No leading role nor a global reactive strategy against competitors and incomers
  - Global editorial projects and effective business models are still missing
The book industry is more converging with the **video-game industry**: emergence of augmented and enhanced books supported by downloading files, book apps or streaming (cf. comics, children books)

Collaborations with **game developers** to create content that combines the strengths and appeal of the book various formats are on the way

A growing **ecosystem of specialised technological companies** (the new middlemen providing e-readers, tables, ushering changes in format) emerges and supports publishers in the production of content: somehow, this is a similar phenomenon to the one observable in the **movie industry**, especially for the locus of innovation

**Conclusion (II): book, video-game and movie industries...some convergences?**

(Source: websites)
Thank you for your attention!

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