Changing Business Models in Scientific, Technical and Medical Publishing Marketplace

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Paris
June 2004
STM publishing: market size

Revenue by Content Segment, 2002

- **Total = $7.0 Billion**
- **Medical** 36%
- **Scientific Publishing & Information** 42%
- **Technical** 22%
  - Technical Publishing & Information 17%
  - Geophysical Information 5%
- **Genetic Databases** 3%
- **Medical Publishing & Information** 33%

Source: EPS Market Monitor, November 2003
STM Publishing: Customer segments

Figure 22: Scientific & Technical Information Market by Customer Segment
Total = $4.5B

Source: EPS

Figure 23: Medical Information Market by Customer Segment
Total = $2.5B

Source: EPS

Academic sector is largest for both Scientific & Technical and Medical Information providers
## Competitive structure

- STM information providers compete strongly in certain areas, and often enjoy dominant positions in lucrative niches.


- Combined, the four leaders represent 49% of the market.

### Figure 29: Overall Market Shares of STM Information Providers, 2002

<table>
<thead>
<tr>
<th>Provider</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elsevier</td>
<td>25.8%</td>
</tr>
<tr>
<td>Thomson SHC</td>
<td>9.0%</td>
</tr>
<tr>
<td>&quot;New Springer&quot;</td>
<td>5.8%</td>
</tr>
<tr>
<td>Nature Publ Grp</td>
<td>2.3%</td>
</tr>
<tr>
<td>Veritas DGC</td>
<td>2.9%</td>
</tr>
<tr>
<td>Blackwell Science</td>
<td>3.2%</td>
</tr>
<tr>
<td>IHS Group</td>
<td>2.2%</td>
</tr>
<tr>
<td>Taylor &amp; Francis</td>
<td>3.6%</td>
</tr>
<tr>
<td>Am. Chemical Soc.</td>
<td>3.6%</td>
</tr>
<tr>
<td>John Wiley</td>
<td>3.6%</td>
</tr>
<tr>
<td>McGraw Hill</td>
<td>1.8%</td>
</tr>
<tr>
<td>IEEE</td>
<td>1.7%</td>
</tr>
<tr>
<td>Dialog (Thomson)</td>
<td>1.6%</td>
</tr>
<tr>
<td>Rest of Market</td>
<td>18.4%</td>
</tr>
<tr>
<td>35 Companies, Societies, and University Presses</td>
<td>18.4%</td>
</tr>
</tbody>
</table>

Source: EPS

*See Appendix 2 for full listing*
STM publishing: market breakdown

Revenue by Delivery Format, 2002

- Journals: $3.5 bn
- Other databases: $1.3 bn
- Books: $1.1 bn
- Meta-publishing: $0.8 bn
- Aggregation: $0.3 bn

Source: EPS Market Monitor, November 2003
STM publishing: market in transition

Print vs. Electronic Delivery, 2002

Scientific & Technical Information
- Print: 39%
- Electronic: 61%

Medical Information
- Print: 58%
- Electronic: 42%

Source: EPS Market Monitor, November 2003
Open access: key questions

- Is “author pays” economically viable?
- Will commercial publishers be forced to follow the OA pioneers?
- Is there room for hybrid models?
- How will commercial STM publishers be affected?
- What are they doing to counter the threat?
Open Archives v Open Access

Open Archives (institutional repositories)

- Interoperable (like Open Source)
- Way of storing and searching content
- Not necessarily free to end-user

Open Access (author pays)

- Content is free to the end-user
- Alternative publishing models (e.g. author pays BioMed Central, PLoS)
- Organised author self-publishing and peer review
Where is Open Archives going?

Open Archives now:
Early adopter institutions/disciplines organise access to their intellectual assets for internal and external user communities

And in the future?:
International searchable access to federated open archives (by discipline) containing free and paid-for content and pre- and post-prints

Barriers to progress?
• Can institutions/academics manage a vast publishing programme? (Content tagging, editorial, updating, version control, author control)
• Will federated search technologies work and really enable cross-searching?
• Will publishers release post-prints?
• Will user/author behaviour change?
The battle for content navigation

<table>
<thead>
<tr>
<th>PRIMARY</th>
<th>Abstracts and Intelligence</th>
<th>NAVIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ScienceDirect (Reed Elsevier)</td>
<td>Scopus Abstracting 14,000 titles</td>
<td>Scirus/Science Direct navigation</td>
</tr>
<tr>
<td>(Thomson)</td>
<td>Agreements with ACS</td>
<td>ISI Web of Knowledge (Science)</td>
</tr>
<tr>
<td></td>
<td>ISI Citation Indexes, Biosis Contracts with IEEE, CABI</td>
<td></td>
</tr>
</tbody>
</table>
Key battleground factors

- Persistent identity (DOI) and granularity
- Google, CrossRef and Cross Search
- Can scholarly standards be maintained in a period of rapid change?