“If I were you I would not start from here.”
History of the scientific journal

• Start: 1665.
• Journal des Sçavans; Philosophical Transactions.
• Background:
  – increasing number of researchers,
  – systematic, empirical scientific methods,
  – need to know the results of colleagues,
  – disadvantages of the book.
• Goals:
  – to improve the communication among scholars; something in between books and letters;
  – to create a public record of original contributions to knowledge.
Evolution of the scientific journal

- Growing emphasis on quality assessment.
- Growing importance of branding.
- Present situation: peer review and quality assessment are the central aspects.
- The journal’s essential role is to enable managers to judge the quality of individual scientists.
The present situation

The present system of scientific journals has a number of problems:

– the system is sluggish;
– there is doubt about the system’s reliability;
– the system is (becoming) unaffordable.
## SAMPLE OF JOURNAL PRICES

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>1995</th>
<th>2001</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain Research</td>
<td>$10,181</td>
<td>$17,444</td>
<td>71.3%</td>
</tr>
<tr>
<td>Biochim. Biophys. Acta</td>
<td>$7,555</td>
<td>$12,127</td>
<td>60.5%</td>
</tr>
<tr>
<td>Chem. Phys. Letters</td>
<td>$5,279</td>
<td>$9,637</td>
<td>82.6%</td>
</tr>
<tr>
<td>Tetrahedron Letters</td>
<td>$5,119</td>
<td>$9,036</td>
<td>76.5%</td>
</tr>
<tr>
<td>Eur. Jrnl. of Pharmacology</td>
<td>$4,576</td>
<td>$7,889</td>
<td>72.4%</td>
</tr>
<tr>
<td>Gene</td>
<td>$3,924</td>
<td>$7,443</td>
<td>89.7%</td>
</tr>
<tr>
<td>Inorganica Chim. Acta</td>
<td>$3,611</td>
<td>$6,726</td>
<td>86.3%</td>
</tr>
<tr>
<td>Intl. Jrnl. of Pharmaceutics</td>
<td>$3,006</td>
<td>$5,965</td>
<td>98.4%</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>$3,487</td>
<td>$6,270</td>
<td>79.8%</td>
</tr>
<tr>
<td>Theoretical Computer Science</td>
<td>$2,774</td>
<td>$4,608</td>
<td>66.1%</td>
</tr>
<tr>
<td>Jrnl. of Exp. Marine Bio. &amp; Eco.</td>
<td>$1,947</td>
<td>$3,501</td>
<td>79.8%</td>
</tr>
</tbody>
</table>

*Uit: Mary M. Case, Pittsburgh conference 2001: Scholarly Communication. A System in Crisis*
THE EFFECT OF JOURNAL PRICES ON UK ACADEMIC LIBRARIES

Graph and statistical information compiled from the SCONUL Statistics by LISU, the Library and Information Statistics Unit, based at Loughborough University
Innovation is complicated because

• commercial publishers are mainly in it for the money

• many academics want to stick to the traditional quality measures
SPARC ALTERNATIVE JOURNALS CAN SAVE LIBRARIES MONEY WITHOUT SACRIFICING QUALITY

<table>
<thead>
<tr>
<th>Title</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topology &amp; Its Applications</td>
<td>$2,672</td>
</tr>
<tr>
<td>Journal of Crystal Growth</td>
<td>$9,220</td>
</tr>
<tr>
<td>Evolutionary Ecology (price reduced in 2001)</td>
<td>$467</td>
</tr>
<tr>
<td>Topology</td>
<td>$1,303</td>
</tr>
<tr>
<td>Organic Geochemistry</td>
<td>$2,513</td>
</tr>
<tr>
<td>Sensors &amp; Actuators, A &amp; B</td>
<td>$5,313</td>
</tr>
<tr>
<td>Machine Learning</td>
<td>$1,050</td>
</tr>
<tr>
<td>Plant Ecology (formerly Vegetatio)</td>
<td>$2,861</td>
</tr>
<tr>
<td>Tetrahedron Letters</td>
<td>$9,624</td>
</tr>
<tr>
<td>Chemical Physics Letters</td>
<td>$10,264</td>
</tr>
<tr>
<td>Jnl of Logic &amp; Algebraic Programming</td>
<td>$747</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebraic and Geometric Topology</td>
<td>Free</td>
</tr>
<tr>
<td>Crystal Growth &amp; Design</td>
<td>$1,781</td>
</tr>
<tr>
<td>Evolutionary Ecology Research</td>
<td>$340</td>
</tr>
<tr>
<td>Geometry &amp; Topology</td>
<td>Free</td>
</tr>
<tr>
<td>Geochemical Transactions</td>
<td>$100</td>
</tr>
<tr>
<td>IEEE Sensors Journal</td>
<td>$395</td>
</tr>
<tr>
<td>Jnl of Machine Learning Research</td>
<td>Free</td>
</tr>
<tr>
<td>Jnl of Vegetation Science</td>
<td>$450</td>
</tr>
<tr>
<td>Organic Letters</td>
<td>$2,609</td>
</tr>
<tr>
<td>PhysChemComm</td>
<td>$100</td>
</tr>
<tr>
<td>Theory &amp; Practice of Logic Programming</td>
<td>$300</td>
</tr>
</tbody>
</table>

$46,034 $6,075 $39,959
Present trends

- Incremental changes: print → electronic
  - by publishers themselves
  - co-publishing (HighWire)
  - new e-journals (academic community)
- Innovations: emphasis on communication
  - discipline oriented: archives, publication sites, portals
  - institution oriented: repositories
- A worldwide movement towards Open Access:
  - PLoS, BOAI, Open Archive Initiative, SPARC
History

To fully understand our position and our purpose, a basic understanding of the current state of scholarly communications is beneficial. Here you will find a short history of academic publishing and the scientific journal, as well as some insight into the situation that sparked the formation of GAP and Roquade, the two initiatives that ultimately combined to create FIGARO. The name FIGARO is an acronym partially taken from the names of these previous projects: Federated Initiative of GAP and Roquade.

Read more...
“FIGARO”? Federated Infrastructure GAP and ROquade
FIGARO’s participants

• University of Utrecht (co-ordinator).
• Core consortium members: Universities of Delft, Hamburg, Oldenburg, Firenze; Daidalos.
• Content providers:
  – SME’s: DiG (Poland), Lemma (Netherlands).
• Dissemination: SPARC.
• 1,4 million euro provided by EC.
FIGARO’s mission

• As a partner organisation within the European academic community, our mission is to enhance scientific communication by improving the speed, simplicity and cost, which we aim to do through innovations in scholarly publishing.

• We strive to provide effective and efficient e-publishing services to individual scientists and scientific organisations through the use of a shared organizational structure and the utilization of open source and standard base software tools wherever possible.

• We are committed to supporting our customers by facilitating scientific communication and the publishing process in a way that allows them to retain ownership of their work as well as present their own profile or identity.
Main features of FIGARO

- Providing an infrastructure for academic e-publishing that allows for modular use
- Facilitating a gradual transition from rather traditional to innovative models
- Not a publisher, in the traditional sense of the word, but assistance to scientists, research groups, institutes to become publishers themselves
- Decentralised structure
- Not for profit
Publishing services

- moderated pre-print service
- traditional electronic publishing
- Publication site with peer review

technical and organisational infrastructure
FIGARO’s business model

• Organisation
  – Network, not hierarchical
  – Strong input from customers
  – No central branding

• Economics
  – Not for profit
  – Preferably open access
FIGARO’s network organisation

Service providers

- back office of the publishing process
- maybe also other service providers

Front offices (university press, publishing company, library)

- intermediate to academic community (scientists, editorial boards, academic organisations, etc): franchisees

Co-ordinator:

- recruiting new front offices
- stimulating synergy between front offices
- regulating the dynamics within the network
Academic community

FIGARO
FIGARO’s financial model

The back office is a financially independent entity, working on a cost recovery base

- the costs for maintenance and innovation of the back office are paid by the front offices
- the higher the use of the back office, the lower the price

A front office needs money to pay the back office

- structural funding from its parent institution
- traditional model: subscription fees
- new models: towards open access
Open access: about costs

• “Open Access” does not mean that there are no costs involved.
• “Open Access” does mean that the costs are not paid by the reader.
• This is fair: actually, every scientific journal has some kind of monopoly from the viewpoint of the reader: the reader has no alternative.
Open Access models: who pays?

- authors, paying for publication ("IFWA")
- authors, paying for peer review
- institutions or societies supporting a journal or site
- institutions or societies buying the right for their members to publish in a certain medium
- grants, donations, sponsorships
A dilemma

• It is rather easy to construct a completely new economical model for academic publishing, in accordance with the interests of the academic community.

• Its is rather difficult to imagine how the present economical model may evolve into this new model.
When everything is under control, you are going too slowly.

Mario Andretti
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Read more...
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Read more...

www.figaro-europe.net

www.roquade.nl