

# The Unbidden Revolution in Scholarly Publishing:

**After Philosophy There Must be Action** 

Martin G. Hicks

**International Chemical Information Conference, Nimes, 2005** 



# The Unbidden Revolution in Scholarly Publishing:

**After Philosophy There Must be Action** 

Victor Hugo, Les Miserables

"There comes an hour when protest no longer suffices; after philosophy there must be action; live force finishes what the idea has sketched."



#### This will not be about.....

"...people banging on about institutional repositories, more "green" and "gold" routes, librarians whining about rising costs, and publishers giving sales pitches on added value and hyperlinks to full text ..."



## Scholarly Publishing The Unbidden Revolution

Transition from traditional to web-based publishing

Faster publishing

**Better access** 

**Lower costs** 

**Lower prices** 

Better functionality

Better interactivity

Transition from oligopoly to free-market

Open Access is a catalyst for change



## **Changes are coming**

Alternative sources available via the web are going to create a growing problem for traditional STM publishers

**Harry Collier** 

Open Access could reduce cost of scientific publishing by up to 30%

Costs and business models in scientific research publishing, Welcome Trust 2004



## **STM Publishing 2002**

Journals: USD 3.5 billion of sales (50%)

**Databases: USD 1.3 billion** 

**Books USD 1.1 billion** 

Metadata (e.g. indexes) USD 800 million

Aggregation activities USD 300 million

An estimated 61% of scientific and technical information was published in electronic form (*i.e.* digital delivery)

Changing business models in the STM publishing marketplace. D.R. Worlock 2004



#### **Insufficient Access**

No research institution can afford to subscribe to all the journals that its researches need

All the potential advances from research are not being maximized (estimated loss £1.5 billion p.a. in UK)

In the digital age the barriers to access can be eliminated

Tim Berners-Lee et al. Open letter to RCUK, 2005



## **Crisis, what crisis?**

Scientific journals have been the fastest growing media sub-sector of past 15 years

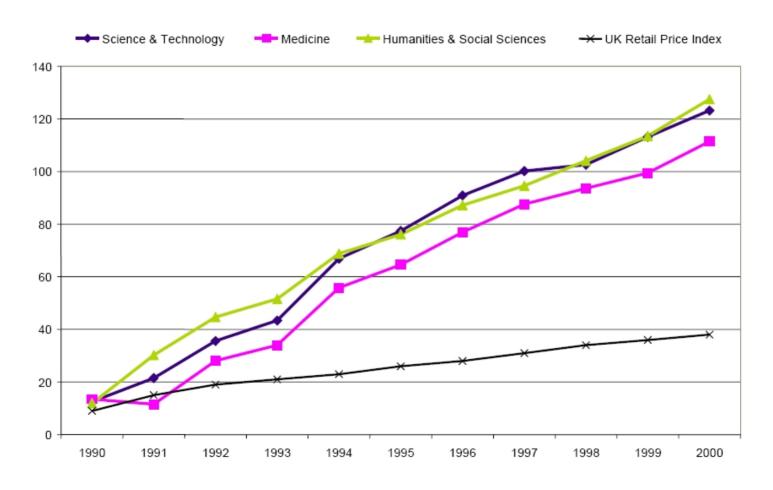
10% organic revenue compound annual growth rate over past 18 years

Industry growth has been so good that the OFT believes "the market for STM journals may not be working well"

MorgenStanley Industry Overview "Scientific Publishing: Knowledge is power" 2002



#### **Journal Price Increases 1990-2000**



Source: OECD report on scientific publishing 2005 citing Blackwell's Periodical Prices from DTI, *Publishing in the Knowledge Economy:* Competitiveness analysis of the UK publishing media sector, London, 2002



## **Too Expensive**

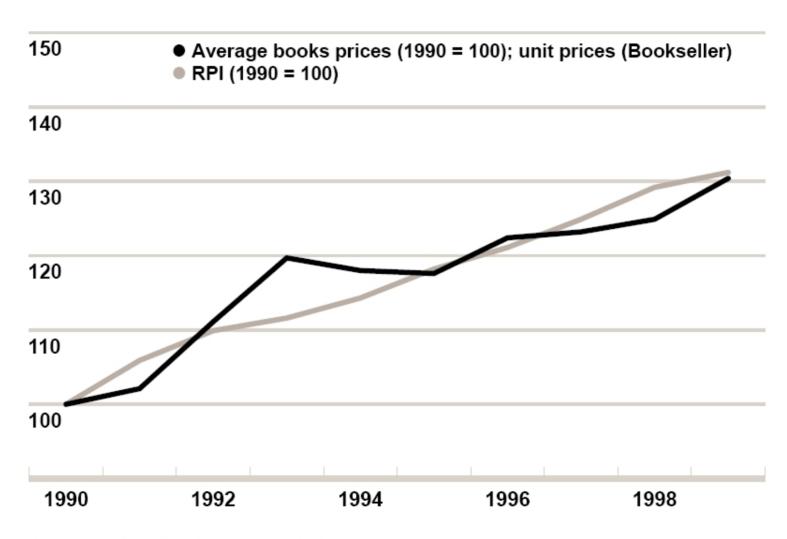
"Journals should give up what are effectively immoral earnings. They add no value to the scientific research, and yet it may take a year or more before they publish and they then charge people to read it.

Making money out of restricting access to research is immoral."

Richard Smith, former editor BMJ



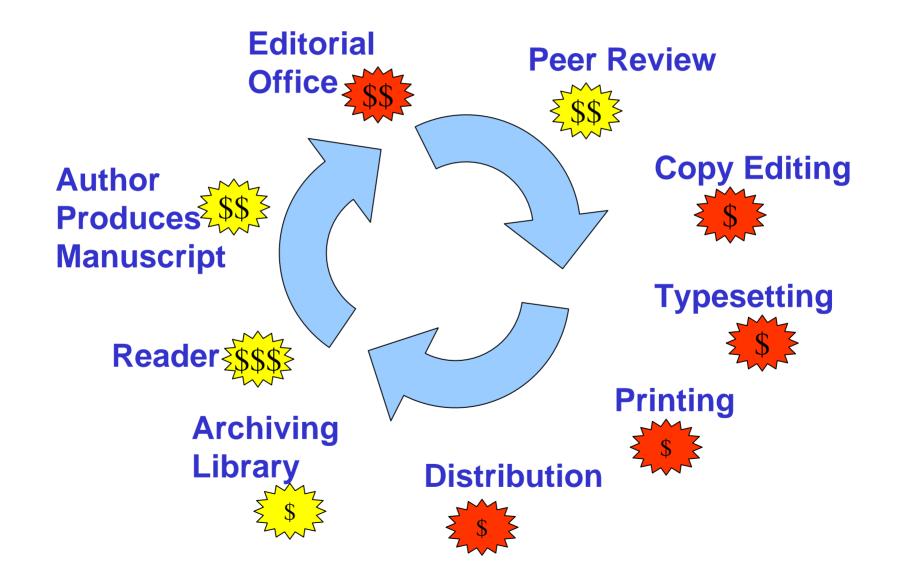
#### **Book Price Increases 1990-2000**



Sources The Bookseller, ONS

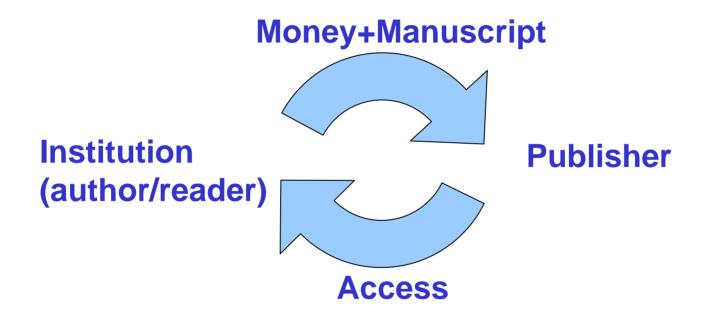


## **STM Publishing Cycle**





## STM Journal Publishing Reduced Model



How can this be self-sustaining?

After: Jonas Holmström, D-Lib Magazine, 10 (1), 2004



### **Incentives to Publish Research Articles**

Unlike book publishing – not for money

**Pursuit of Priority** 

Research Impact

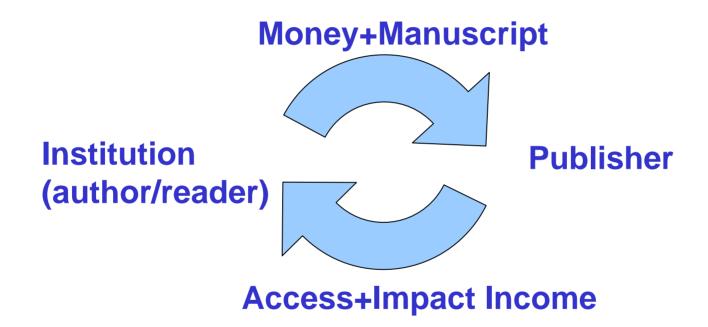
Measure of research progress and significance

Wide readership (access)
Citing - Citation impact factor

Impact Income ——— Publish or perish



## STM Journal Publishing Reduced Model



After: Jonas Holmström, D-Lib Magazine, 10 (1), 2004



## STM Publishing Market Characteristics

**Impact income** 

**Customer** is not user

**Big Deals** 

In a period of transition

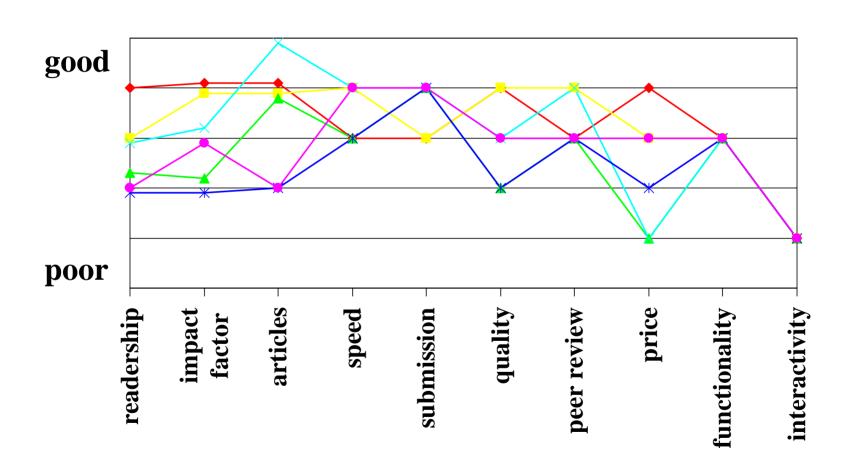
**Competitive growing market** 

**Cause distortions** 

Provide opportunities



# Characteristics of the top 6 journals in organic chemistry





## **Some Open Access Reading**

Peter Suber's blog

http://www.earlham.edu/~peters/fos/fosblog.html

**OECD** report on scientific publishing

**OECD 2005** 

Costs and business models in scientific research publishing
Welcome Trust 2004

Economic analysis of scientific research publishing

**Welcome Trust 2003** 

**JISC: Learned Society Open Access Business Models** 

M. Waltham 2005

Scientific Publications: Free for All, Tenth Report

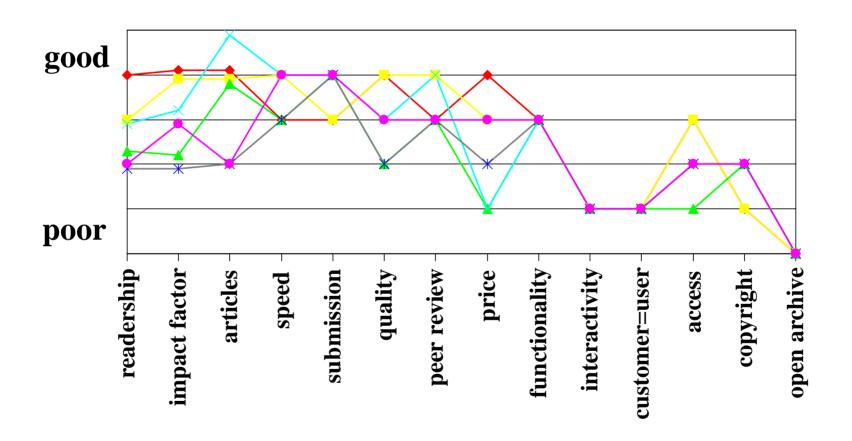
House of Commons, STC, 2004

Publishing in the knowledge economy

**Pira**, 2002

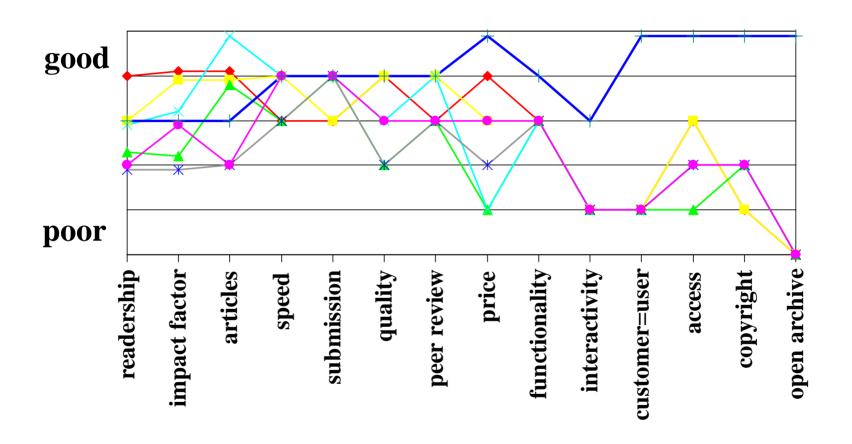


# Characteristics of the top 6 journals in organic chemistry (incl. Open Access attr.)





# Characteristics of the top 6 journals in organic chemistry (incl. Open Access attr.)





2006 Beilstein-Institut Workshop:

"Molecular Interactions - Bringing Chemistry to Life"

May 15th - 19th, 2006, Bozen, Italy

2006 Beilstein Symposium:

2nd International ESCEC Workshop on

**"Experimental Standard Conditions of Enzyme Characterization** 

(ESCEC)"

March 19th - 23rd, 2006 in Ruedesheim/Rhein, Germany

2004 Beilstein-Institut Workshop:

"The Chemical Theatre of Biological Systems"

May 24th - 28th, 2004, Bozen, Italy

2003 Beilstein Symposium:

1st International ESCEC Workshop on

**"Experimental Standard Conditions of Enzyme** 

Characterization"

Oct. 5th - 8th, 2003 in Ruedesheim/Rhein, Germany

2002 Beilstein-Institut Workshop:

"Molecular Informatics: Confronting Complexity"

May 13th-16th, 2002, Bozen, Italy.

2000 Beilstein-Institut Workshop:

"Chemical Data Analysis in the Large: The Challenge of the

**Automation Age**"

May 22th-26th, 2000 Bozen, Italy



## What do you need to launch a journal?

**Editor** 

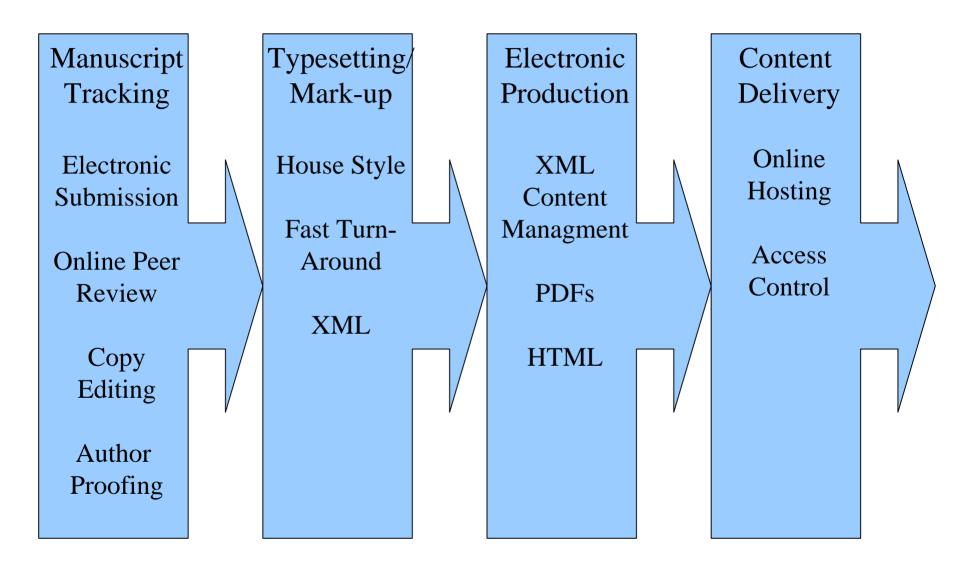
**Editorial Advisory Board** 

Infrastructure

**Business Plan** 



#### Infrastructure





#### **Business Plans**

Guide to Business Planning for Converting a Subscription-based Journal to Open Access v3

**Guide to Business Planning for Launching a New Open Access Journal v2** 

Model Business Plan: A Supplemental Guide for Open Access Journal Developers & Publishers



# **Beilstein Journal of Organic Chemistry**

#### Aims:

To be a high quality international publication that combines effective peer review with rapid publication and the widest possible dissemination

### **Advantages:**

Free access worldwide

No publication charges

Customer=user

**Author retains copyright** 

Open access archived

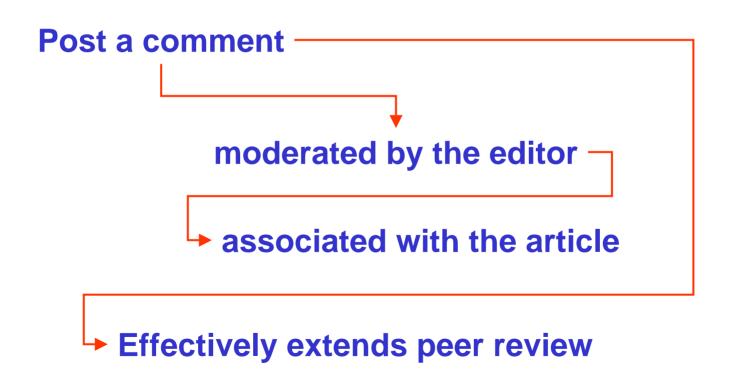
**Intuitive browsing** 

Interactive – post comments



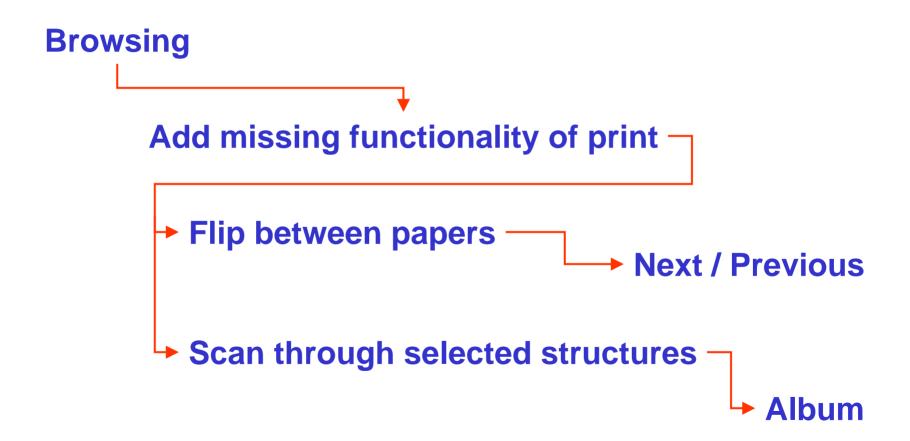
#### **Better Interaction**

### Take advantage of the web environment





## **Improved Functionality**





#### Beilstein Journal of **Organic Chemistry**

About the journal

Welcome to Beilstein Journal of Organic Chemistry

An online journal published by the Beilstein-Institut in cooperation with BioMed Central

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Eric M Flamme, William R Roush

Beilstein Journal of Organic Chemistry 2005, 1:7 (26 August 2005)

[Abstract] [Full Text] [PDF]

Full Research Paper Open Access

An exceptional P-H phosphonite: Biphenyl-2,2'-bisfenchylchlorophosphite and derived ligands (BIFOPs) in enantioselective copper-catalyzed 1,4-additions

T Kop-Weiershausen, J Lex, J-M Neudörfl, B Goldfuss

Beilstein Journal of Organic Chemistry 2005, 1:6 (26 August 2005)

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Mixtures of Monodentate P-Ligands as a Means to Control the Diastereoselectivity in Rh-Catalyzed Hydrogenation of Chiral Alkenes

Manfred T Reetz Mand Hongchao Guo M

Max-Planck-Institut für Kohlenforschung, Kaiser-Wilhelm-Platz 1, D-45470 Mülheim/Ruhr, Germany

Beilstein Journal of Organic Chemistry 2005, 1:3 doi:10.1186/1860-5397-1-3

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#### Reagent Controlled Addition of Chiral Sulfur Ylides to Chiral Aldehydes

Varinder K Aggarwal 🌌 and Jie Bi 🖼

School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, UK

Beilstein Journal of Organic Chemistry 2005, 1:4 doi:10.1186/1860-5397-1-4

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**Open Access** 



The Wellcome Trust is to become the first scientific research funder to insist that papers emanating from its grant awards are placed in an open access repository.

From 1st October 2005



# You've got to be very careful if you don't know where you're going, because you might not get there

Lawrence Peter "Yogi" Berra

A magic dwells in each beginning Jedem Anfang wohnt ein Zauber inne

**Herman Hesse** 



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