



The global voice of scholarly publishing

STM Report 2015: A Taster

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Journal@350

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The global voice of scholarly publishing

The STM Report

An overview of scientific and scholarly journal publishing

Celebrating the 350th anniversary of journal publishing



Mark Ware

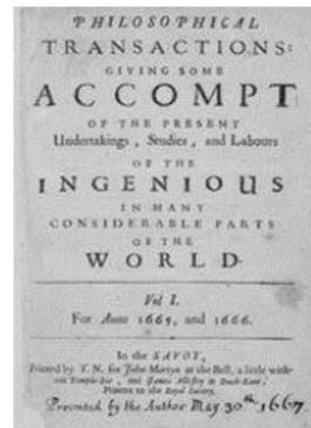
(Mark Ware Consulting & Outsell, Inc.)

Michael Mabe

(International Association of Scientific,
Technical and Medical Publishers)

Fourth Edition

March 2015



STM Market Characteristics

- Annual STM English language journal revenues about **US\$10 billion** in 2013
 - CAGR 4.5% (2008 US\$8 billion)
- Broader STM market (including books and datasets) about **US\$25.2 billion** in 2013
 - STM Books worth ~US\$5 billion; e books 17% and growing fast
- By geography
 - 55% US; 28% EMEA; 14% APAC; 4% RoW
- By employment: 110,000 globally
 - 20-30,000 in Europe

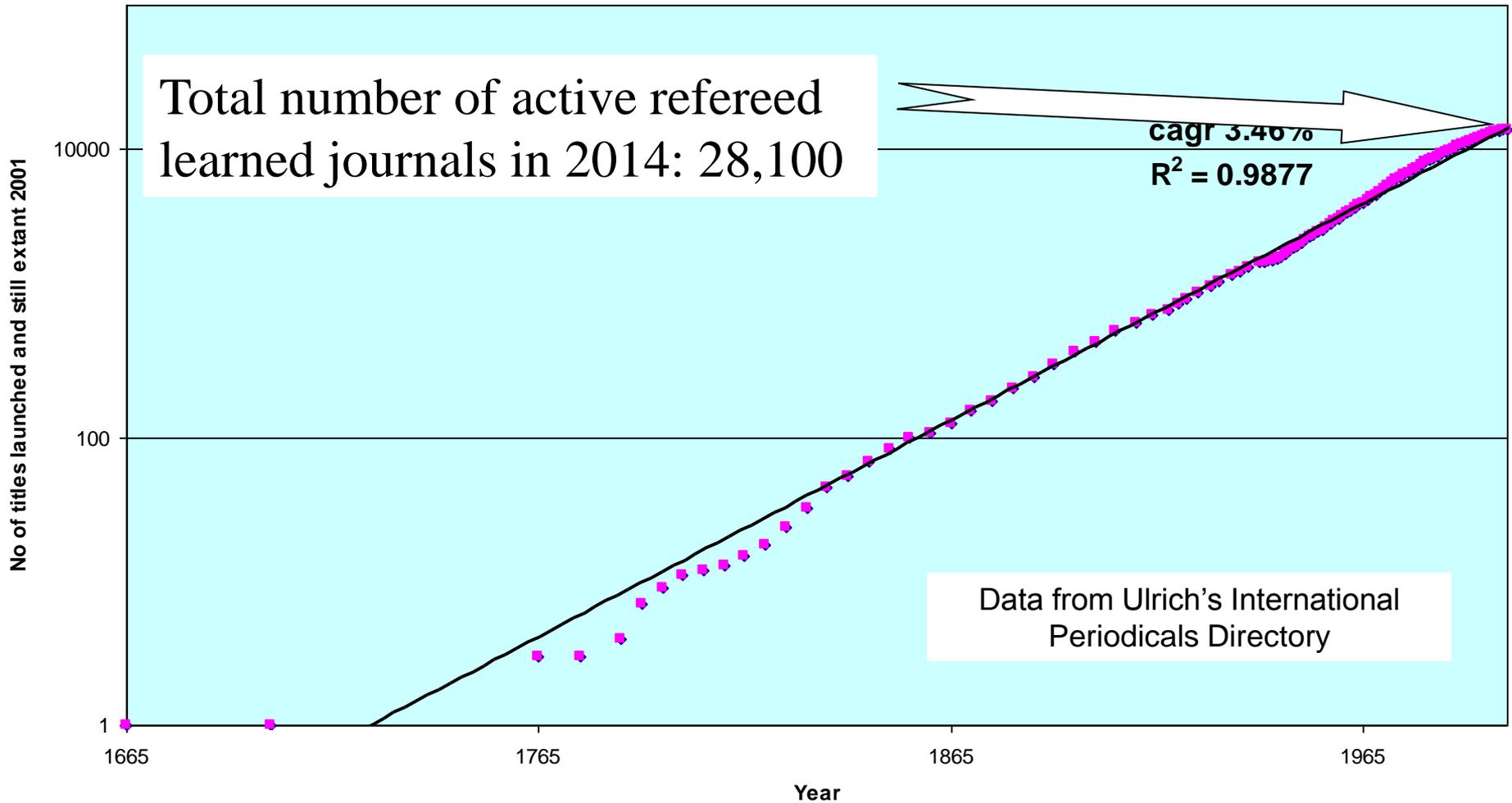
STM Journal Market

- 28,100 active scholarly peer reviewed journals exist late 2014
 - Growing at about 3.5%pa
- 2.5 m articles published per year
 - Growing at 3-4%pa
- USA dominates paper output still (23%) but China now in second place (17%)
 - US leads citations (36%), China 11th (6%)
- UK (7%), Germany (6%), Japan (6%) and France (4%)

Journal Growth 1665-2014

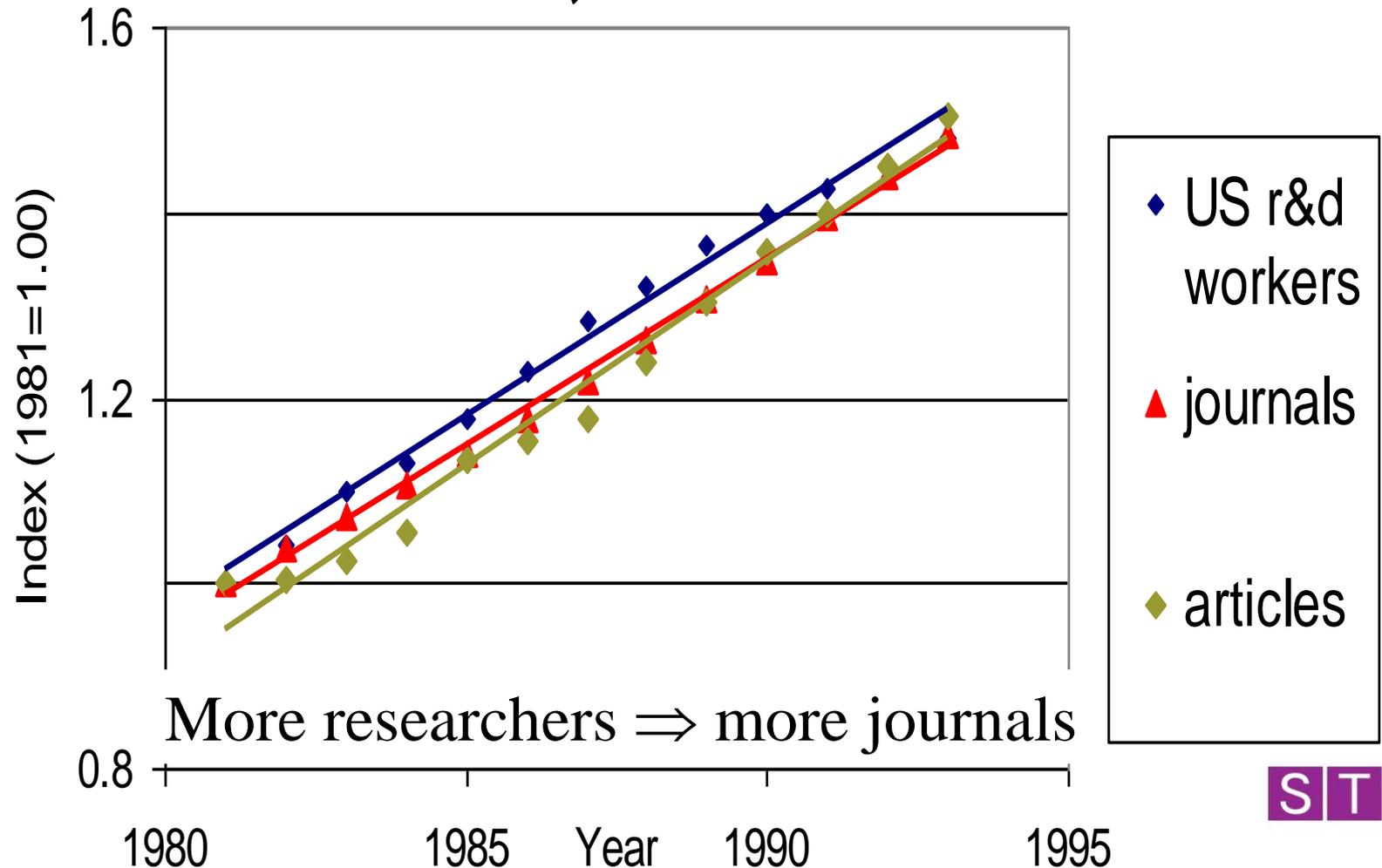
Journal growth

[Original Source: M A Mabe The number and growth of journals *Serials* 16(2).191-7, 2003]



Relationship of Journals & Researchers

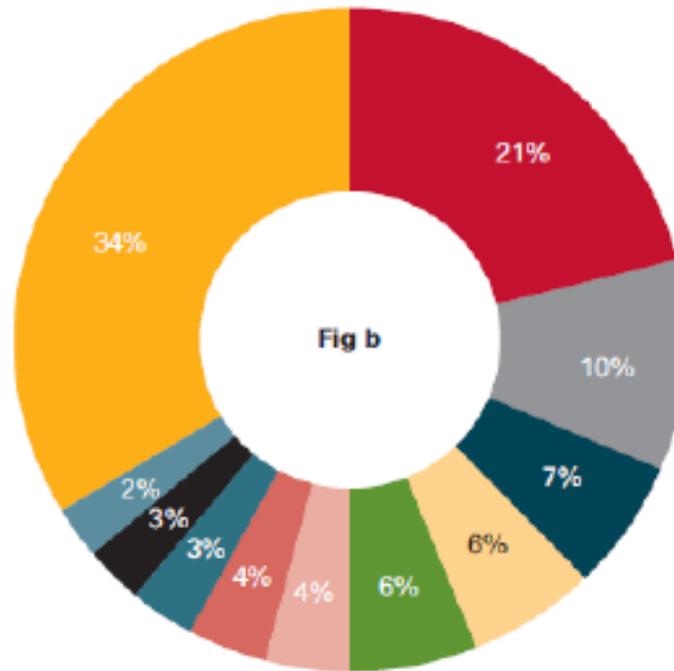
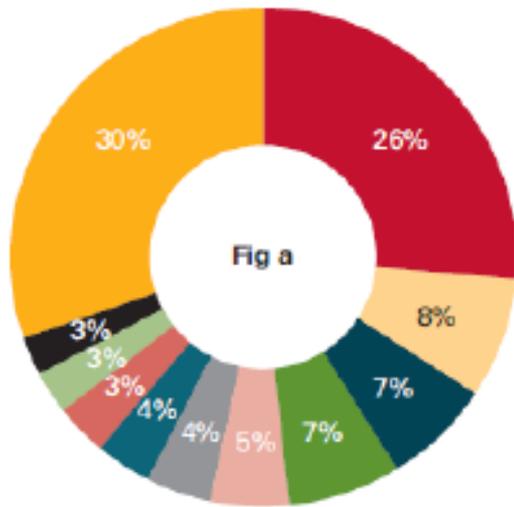
R&D Workers, Journals and Articles



Global Article Authorship

1999-2003
5.49M

2004-2008
7.33M



Key

- United States
- Japan
- United Kingdom
- Germany
- France
- China
- Italy
- Canada
- Russian Federation
- India
- Spain
- Other

Knowledge, networks, nations: Global scientific collaboration in the 21st century.
RS policy document, March 2011 – data from Scopus

Researchers

- Researcher core motivations for publishing unchanged
- Reading patterns are changing
 - Reading more (270 articles pa)
 - Reading times down (just over 30 min)
 - Search dominates over browse (discipline variation)
 - Very little time spent on publisher web sites
- Peer review viewed as fundamental
 - Much experimentation but little support for post publication review

Technology

- Virtually all STM journals are online
- Social networks have yet to make same impact in STM space as consumer media
- Except for healthcare professionals mobile devices have yet to significantly change how researchers interact with content
 - Less than 10% of STM platform traffic from mobiles
- Data, data, data!
 - Policies for deposit and sharing (RDA)
 - Data citation (DataCite)
 - Data journals
- TDM
 - CrossRef TDM tools, CCC and Infotrieve services

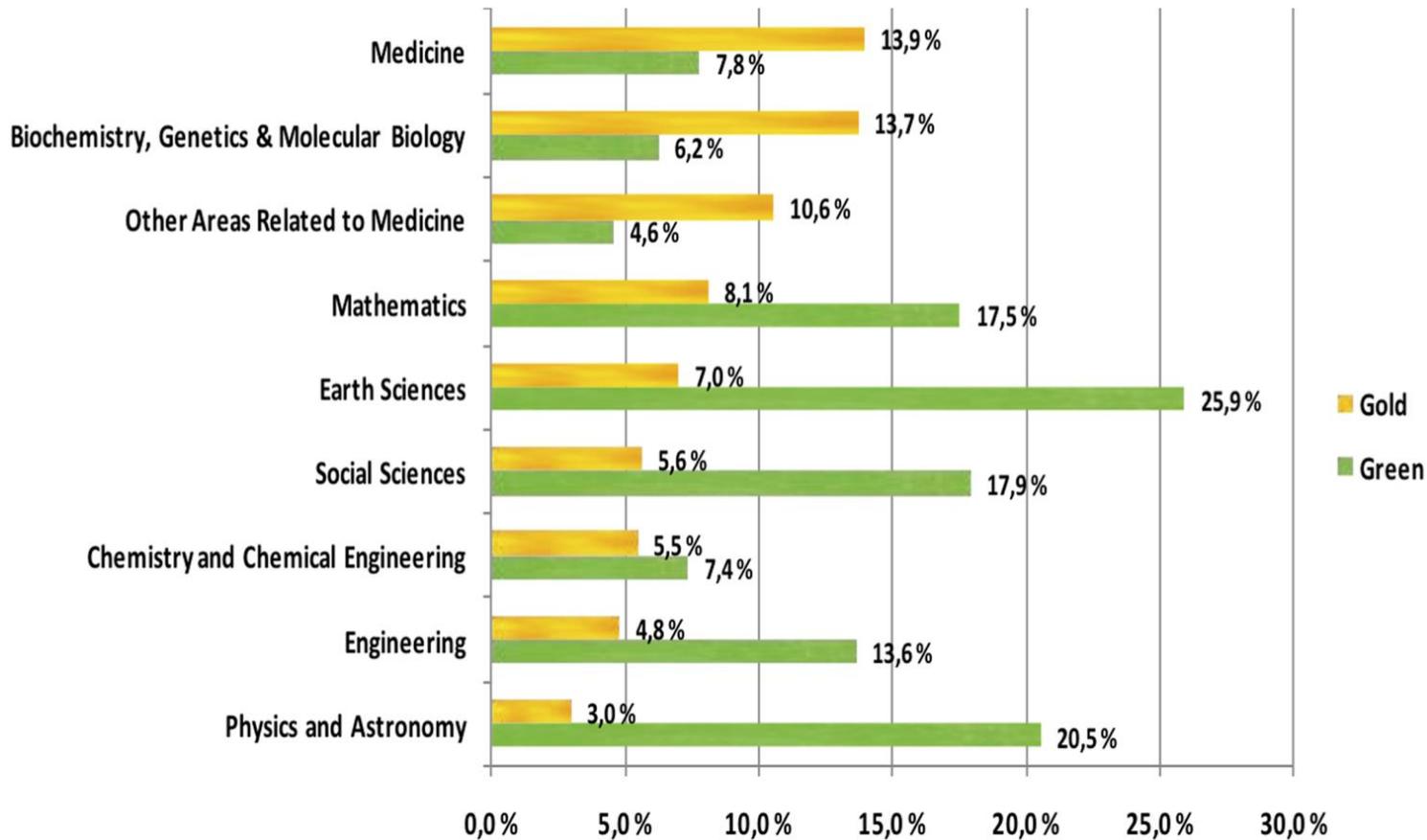
Business Models

- Aggregation the norm; licensing still dominant
 - Supply side: the Big Deal
 - Demand side: Consortia
- Access to STM content at an historic high
 - Annual fta downloads greater than 2.5 billion
- National site licences and public library access
- *Research4Life* provides free or very low cost access for 7,700 institutions in 109 developing nations to nearly 20,000 journals

Open Access

- Degree of penetration of various OA models is complex (not least because OA models are not all well defined)
- DOAJ lists 10,090 (7,245 in English) OA journals
- Overall OA article penetration about 27-29%
pace EC 50%!
 - 12% (Gold or articles in OA journals)
 - 5% (Delayed access on publisher websites)
 - 10-12% (self-archived copies)

OA Variability by subject



Source: Björk et al. 2010

Trends Since 2012 Report

- Web is now dominant
- Social networks yet to take off
 - Those that do exist are used mainly for reference or article sharing rather than social interaction
- Smart phone adoption – limited impact
 - except tablets with healthcare professionals (curiously appropriate one feels!)
- Access levels are high and continue to grow
 - 2.5+ billion downloads at very low cost (\$1 per paper)
- Big deal licensing remains majority model
 - Some criticisms but likely to evolve rather than die out
 - Still business model for 70+% of articles

Trends Since 2012 Report

- Globalisation continues apace
 - China moving to lead in article output
 - India and Brazil expanding research base
- In 2012 clear policy shift to Gold OA identified but in 2015 more Green tinted
 - Virtually all funders will pay for Gold APC but policies lean heavily to Green
 - Green = “nobody pays” model attractive for policy makers
 - Publisher unpopularity and lack of trust a major issue here

Future Prospects?

- Some constants in fast changing world
 - Oldenburgian functions remain fixed (registration, dissemination, certification and archive)
 - Author motivations remarkably constant
 - BUT mega journals seem to run counter to this
- Growth in volume and complexity
- Increased focus on data
- Open access transition will continue
 - Momentum for uptake remains but may stall at a mixed market position
 - Will apc rates rise or fall or stratify?
 - Top (high rejection rate) journals remain subscription-based?
 - Embargo periods remain of much debate but not change much?
 - OA in books and educational resources
- Accelerating pace of market and technology innovation
 - Set in part by leading consumer brands

Predicting the future...

"There will never be a mass market for motor cars — about 1,000 in Europe — because that is the limit on the number of chauffeurs available!" — Gottlieb Daimler, inventor of the gasoline-powered automobile, 1889

