



# The Polysaccharide Literature-A Journal Editor's Perspective

John Mitchell

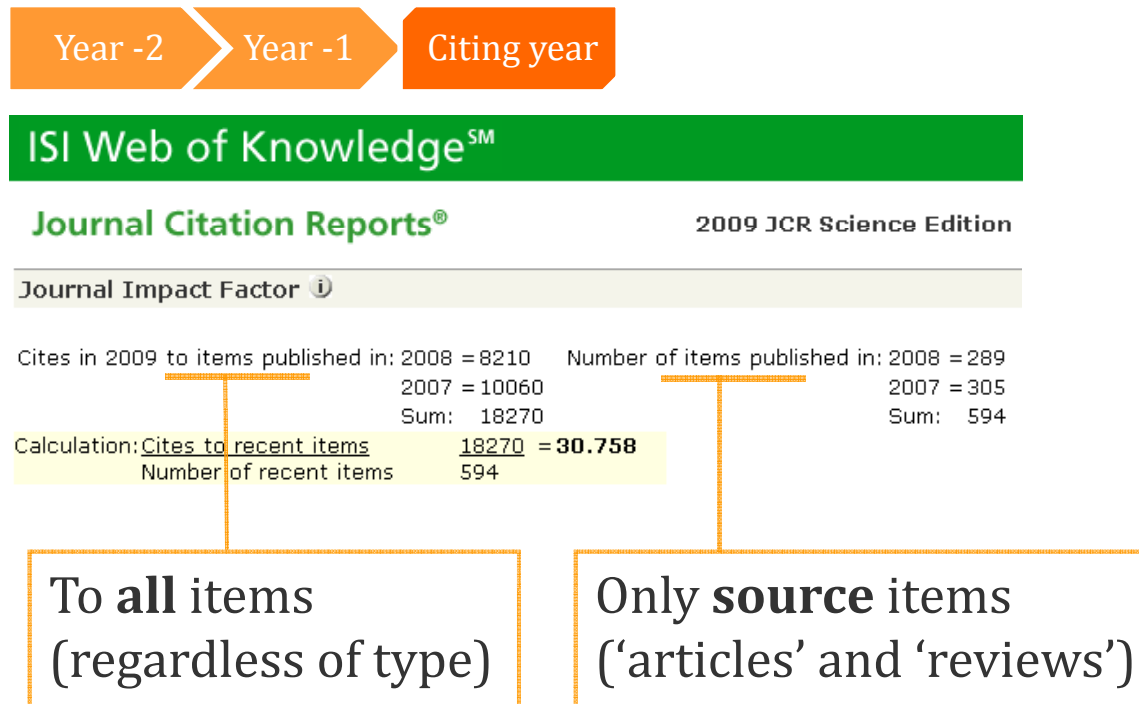
# Topics covered

- Journal matrices\*
  - Impact Factor
  - H-index
- What happens to a paper after submission
  - The growth in the polysaccharide literature
  - An editor's perspective
- Editorial Concerns
  - Self-Plagiarism
  - Salami slicing
  - Authorship
- The journal of the future

\*Acknowledgements to Dr Andrew Plume. Associate Director – Scientometrics & Market Analysis. Elsevier

# The Impact Factor

A ratio between citations and recent citable items published in a journal;  
the average number of citations received per published article.



Citations to non-source items (editorials, letters, news items, book reviews, abstracts, etc) may **inflate** the IF

# Five year Impact Factor



ISI Web of Knowledge<sup>SM</sup>

Journal Citation Reports<sup>®</sup>

2009 JCR Science Edition

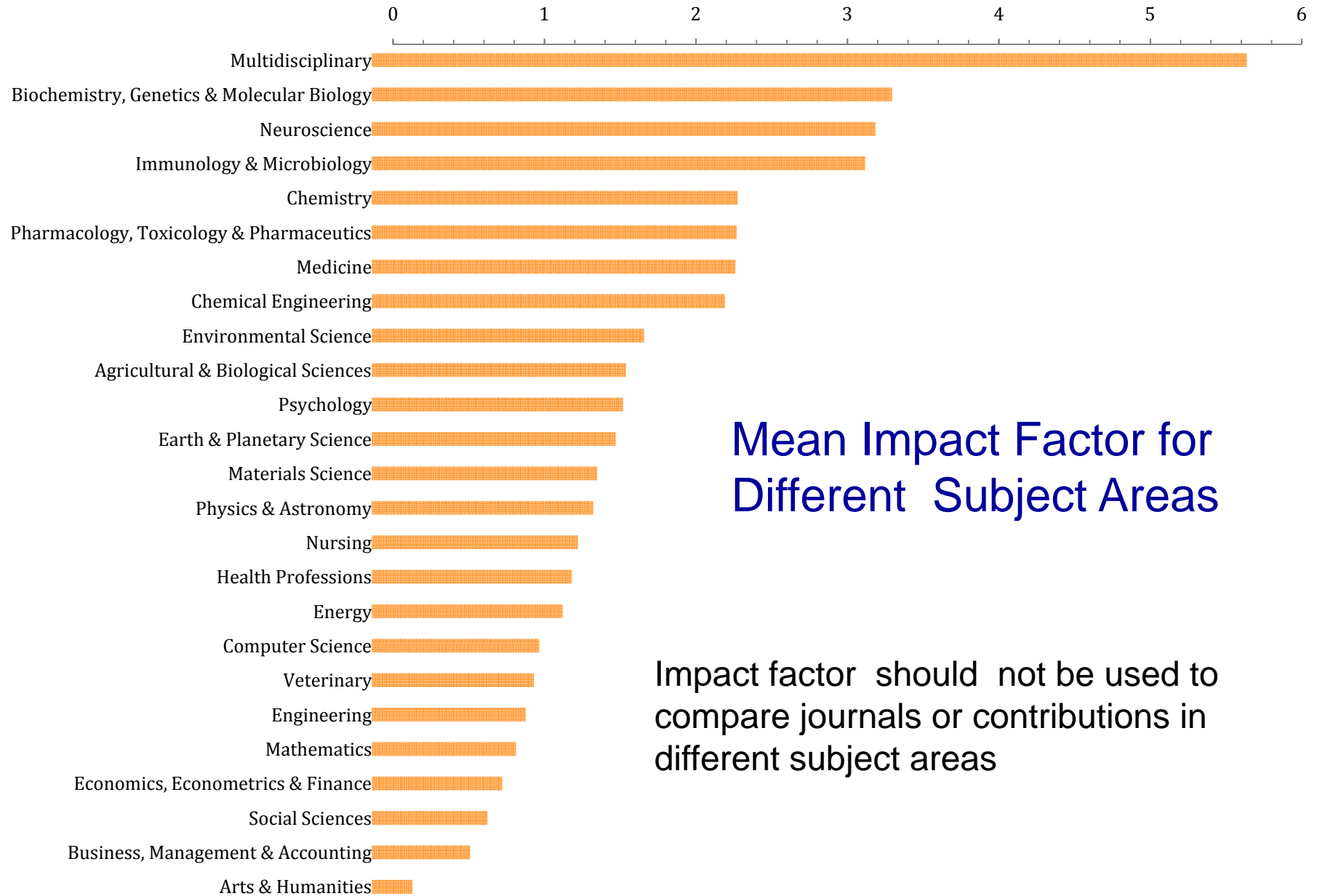
5-Year Journal Impact Factor ⓘ

Cites in {2009} to items published in:	2008 = 8210	Number of items published in:	2008 = 289
	2007 = 10060		2007 = 305
	2006 = 8869		2006 = 301
	2005 = 12419		2005 = 360
	2004 = 9641		2004 = 416
	Sum: 49199		Sum: 1671

Calculation: Cites to recent items	49199	=	<b>29.443</b>
Number of recent items	1671		

## Some Latest (2010) Two Year Impact Factors

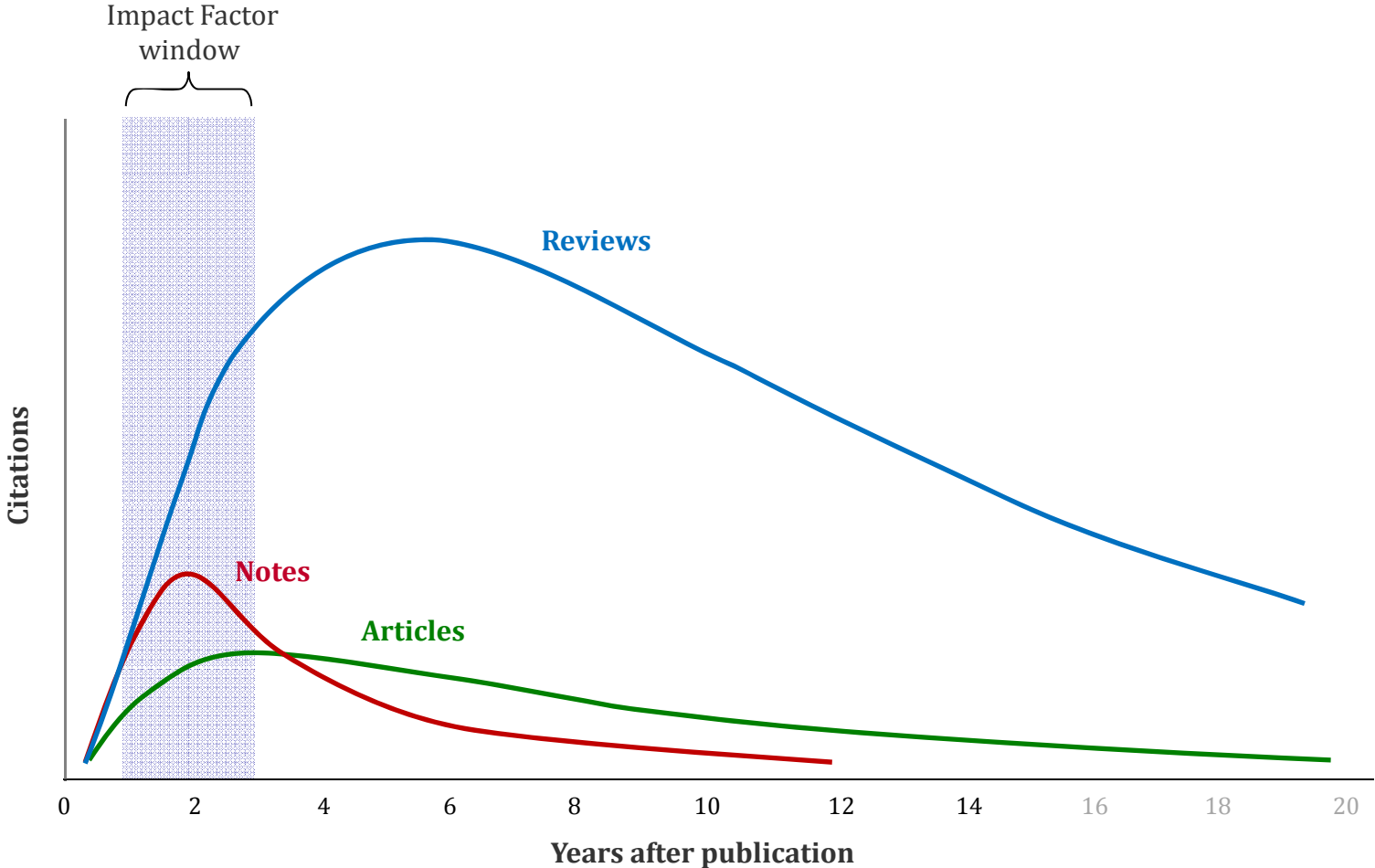
Biomacromolecules	5.33
Biopolymers	2.57
Carbohydrate Polymers	3.46
Carbohydrate Research	1.90
Cellulose	2.82
Food Hydrocolloids	2.66
Macromolecules	4.84
Polymer	3.83
Starch	1.26



## Mean Impact Factor for Different Subject Areas

Impact factor should not be used to compare journals or contributions in different subject areas

# Journal Editors Like Reviews



A number of suggested alternatives to the Impact Factor

## The Eigen Factor

Similar to Impact Factor, but considers 5 years

Self-citations excluded

Citations *weighted* by the EF of the citing journal



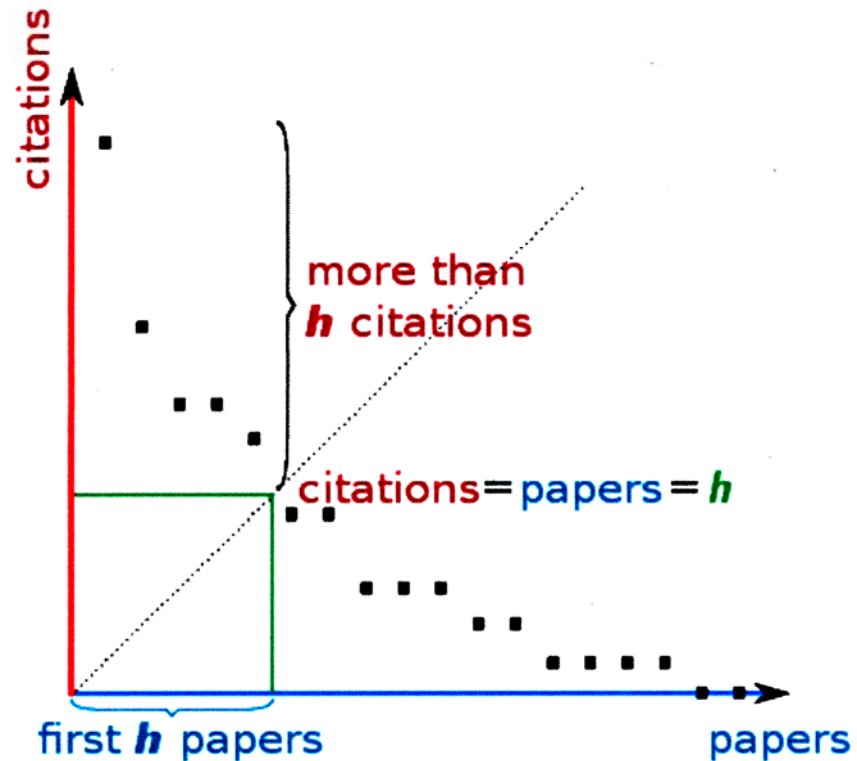
## Elsevier's philosophy on the Impact Factor

“Elsevier uses the Impact Factor as one of a number of **performance indicators** for journals. It acknowledges the many **caveats** associated with its use and strives to share **best practice** with its authors, editors, readers and other stakeholders in scholarly communication. Elsevier seeks **clarity** and **openness** in all communications relating to the IF and does not condone the practice of **manipulation** of the IF for its own sake.”

# H (hirsch) index

Rates individuals based on career publications  
Incorporates both quantity and quality  
Productivity and age constraints

Diagram  
source  
Wikipedia



J.E. Hirsch *Proceedings of the National Academy of Sciences of the United States of America* 102 (46): 16569-16572 November 15 2005.

# H-index

- h-index increases with age
  - Moderately productive physicist would have an h about equal to his research age
- Suggested relates to status in US academic hierarchy
  - $h \sim 8$  tenure
  - $h \sim 18$  full professorship
  - $H \sim 45$  full member US academy of sciences
- Above figures relate to physics will depend end on discipline
  - biological scientist with  $h=9$  as good as mathematician with  $h=3$  (difference in impact factor of journals)

# THE CHRONICLE OF HIGHER EDUCATION

October 14 2005

## **The Number That's Devouring Science**

**The impact factor, once a simple way to rank scientific journals, has become an unyielding yardstick for hiring, tenure, and grants**

By RICHARD MONASTERSKY

# THE WALL STREET JOURNAL.

June 5, 2006

## **Science Journals Artfully Try To Boost Their Rankings**

By SHARON BEGLEY

*Journal of*  
Documentation

Vol. 64, Iss. 2 (2008)

## **Is the impact of journal impact factors decreasing?**

Jan Reedijk

*Leiden Institute of Chemistry, Leiden University, Leiden, The Netherlands, and*

Henk F. Moed

*Centre for Science and Technology Studies (CWTS), Leiden University,  
Leiden, The Netherlands*

# Is the Impact Factor Important?

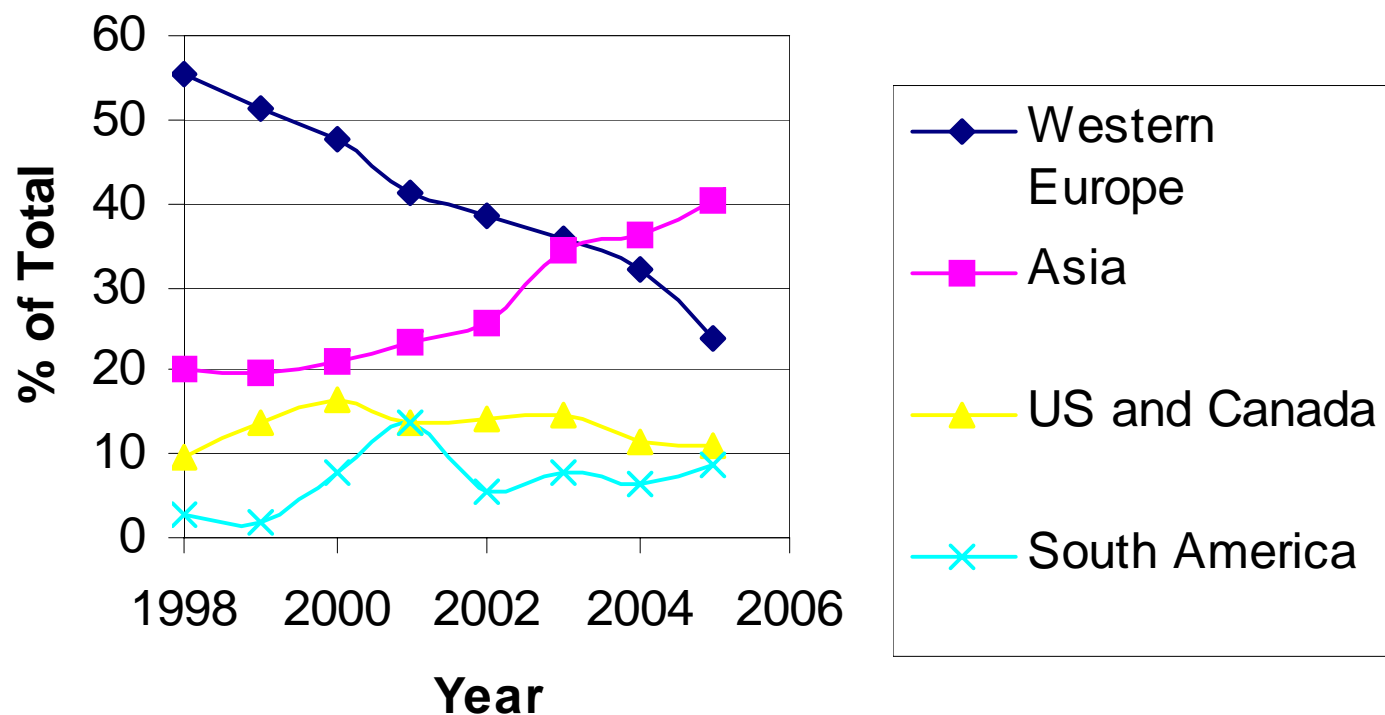
Yes. It is important to appreciate its limitations particularly it should not be used to compare different subjects

Impact factors and h-indices will be used to evaluate journals, individuals, research groups and institutions for the foreseeable future

# The polysaccharide literature

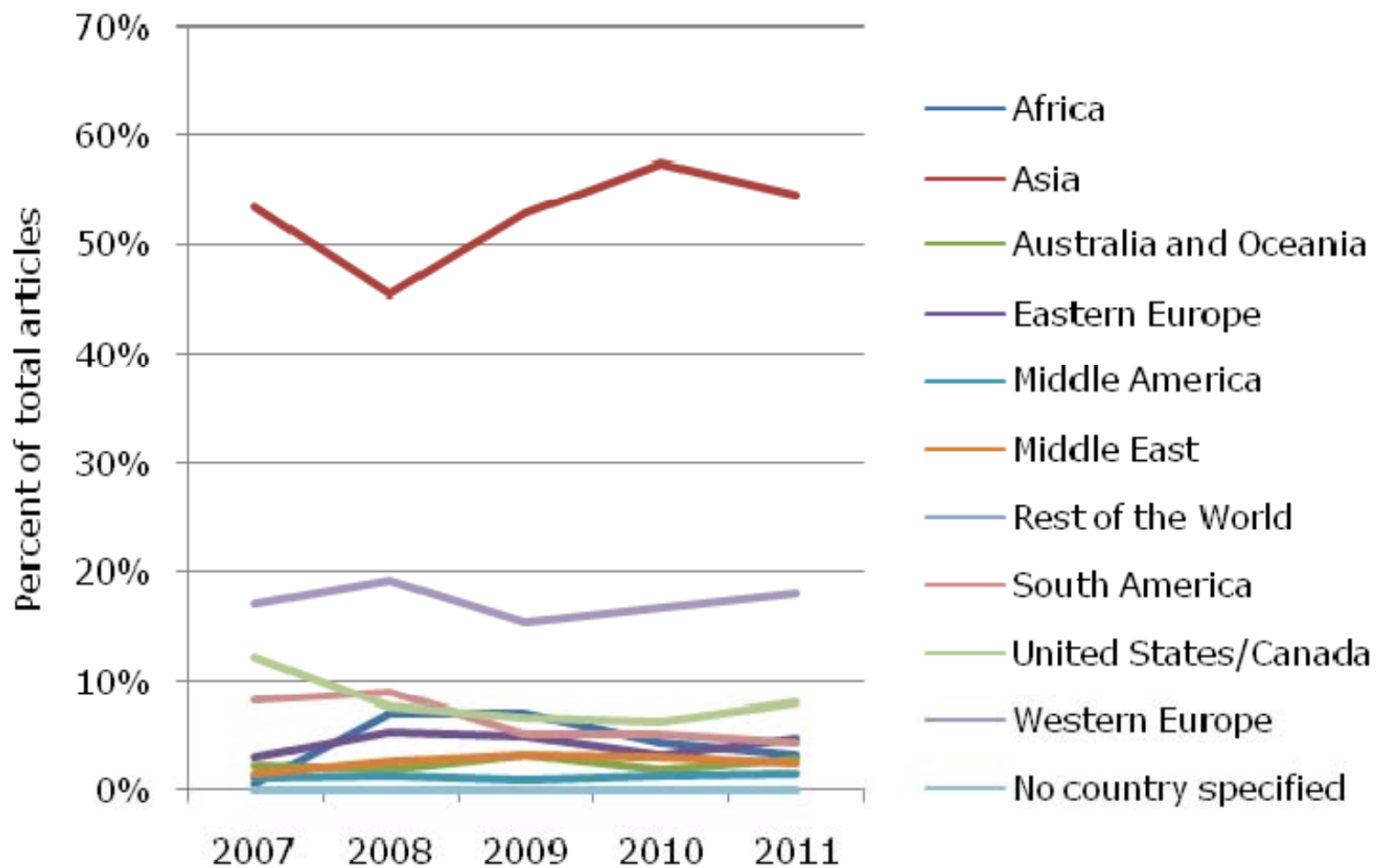
## A challenge for Europe

### Papers published in Carbohydrate Polymers by region



In 2008 50% of published papers were from Asia

## Papers accepted by Carbohydrate Polymers by Region





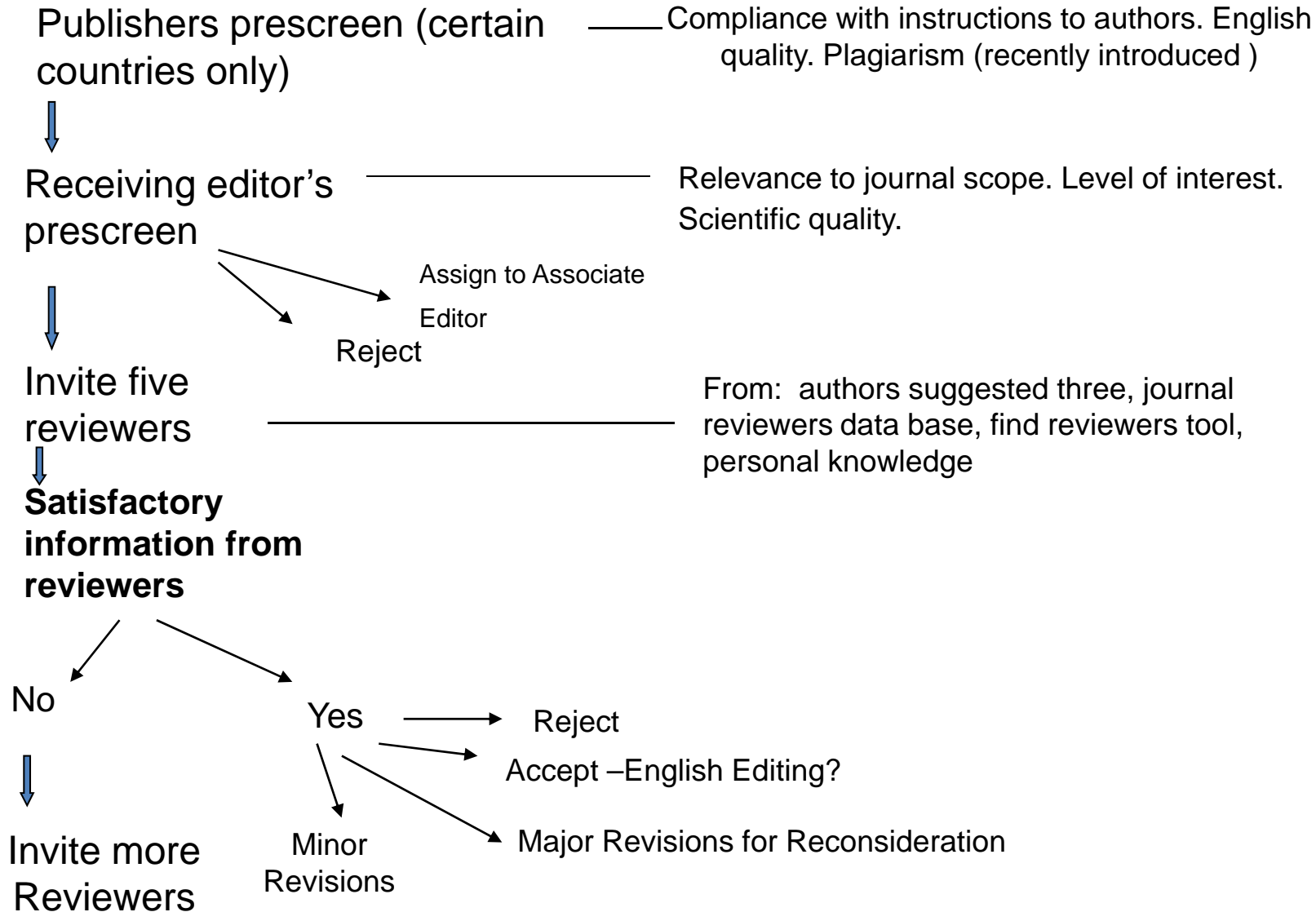
## Countries with most Carbohydrate Polymers downloads

<i>Country</i>	<b>Usage 2008</b>	<b>%</b>	<b>Usage 2009</b>	<b>%</b>	<b>Usage 2010</b>	<b>%</b>
<b>China</b>	151306	19.7	184154	19.1	250159	20.7
<b>United States</b>	77093	10	89134	9.2	143788	11.9
<b>Thailand</b>	55054	7.2	64774	6.7	80644	6.7
<b>Malaysia</b>	29680	3.9	43903	4.5	49424	4.1
<b>Iran, Islamic Republic</b>	22196	2.9	34960	3.6	46067	3.8
<b>Brazil</b>	31737	4.1	39165	4.1	41952	3.5
<b>Taiwan</b>	23361	3	33118	3.4	41783	3.5
<b>Korea, Republic</b>	30939	4	36080	3.7	40361	3.3
<b>France</b>	28818	3.8	36407	3.8	38983	3.2
<b>United Kingdom</b>	29733	3.9	32941	3.4	36445	3
<b>Japan</b>	26762	3.5	31524	3.3	35318	2.9
<b>Total</b>	<b>767416</b>	<b>100</b>	<b>965851</b>	<b>100</b>	<b>1210621</b>	<b>100</b>

## Carbohydrate Polymers Citations For Papers Published in 2007 and 2008

<u>Keyword</u>	<u>Citations per publication</u>	<u>Number of publications</u>
Composite	5.8	43
Ant-bacterial, microbial, viral	5.6	40
Drug delivery	5.5	68
Chitosan	5.1	193
Alginate	4.8	45
Food	4.0	42
Cellulose	3.6	141
Starch	3.5	204
Pectin	3.2	35

# Paper Trail



Author republishes work that he/she has previously published.

Recent Examples :-

Almost word for word repetition of previously published work. Only the title has been changed

Results of research original but paper written to a template. Extensive repetition of Introduction, materials and methods as well as text in results. Very high text matches found by anti-plagiarism software

“Same” material recharacterised. Only novelty was determination of an aspect of bioactivity

# Salami Slicing

Splitting up a piece of research into the smallest publishable unit

“It is important to appreciate that the majority of the best papers are structured in such a way that a hypothesis is tested or a question answered.

Young (and old) researchers should ask themselves the question - *Why are we doing the work?* The first answer should not be "so we can publish a short paper." For example there are infinite number of new materials that can be prepared by graft modification of polysaccharides but just to produce a new material without any thought of its potential utility or how the work can answer a scientific question is of little value. Increasingly papers of this type will not be sent out for review.” (Mitchell and Kennedy 2011)

Jelen, P., Dejmek, P., Everett, D., Kelly, A., Roupas, P., Smith, D., et al. (2009). IDJ shares concerns about plagiarism in scientific publications. *International Dairy Journal*, 19,1-2.

Mitchell, J., & Kennedy, J. Thirty years of *Carbohydrate Polymers*—Meeting the challenge of safeguarding journal quality. *Carbohydrate Polymers* (2011), doi:10.1016/j.carbpol.2011.08.063

Authorship is restricted to those who:

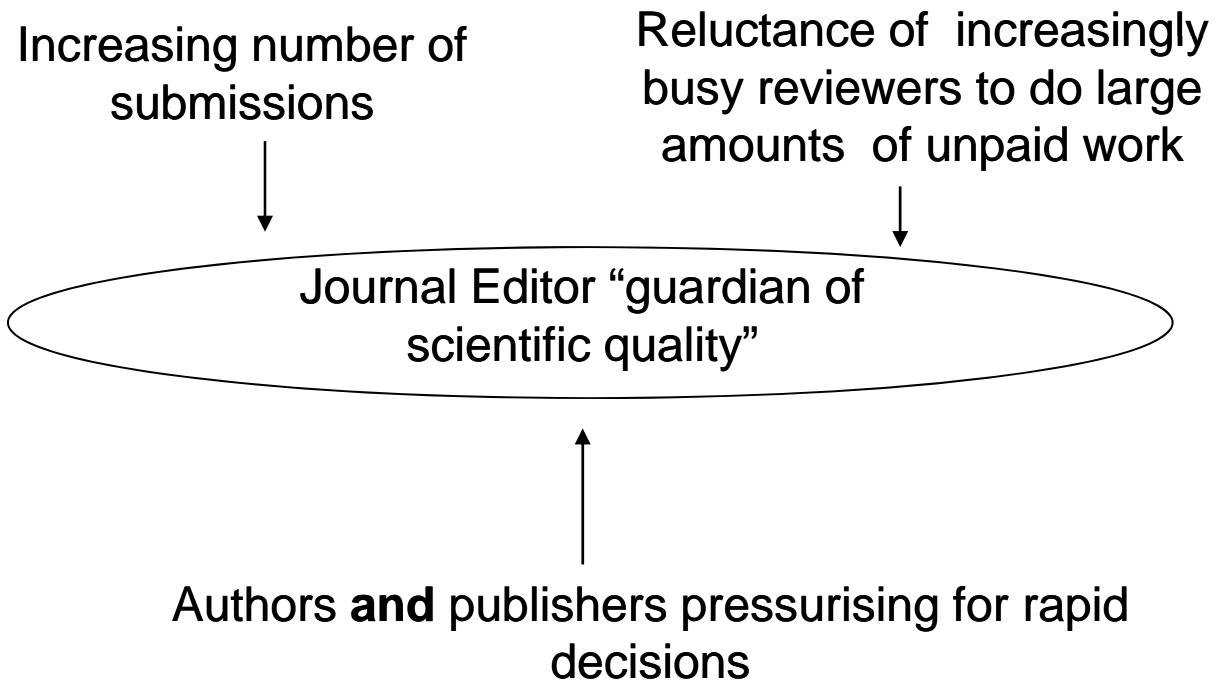
1. Have contributed **substantially** to one or more of the following aspects of the work: conception, planning, execution, writing, interpretation, and statistical analysis.
2. Are willing to assume public responsibility for the validity of the work.

Journal of Food Science guidelines

# Journal of the Future

All electronic. No paper copies.

Allows much more information in different sections e.g. source data.





Thank you for listening