

# JOURNAL PUBLISHING IN A NETWORKED AGE

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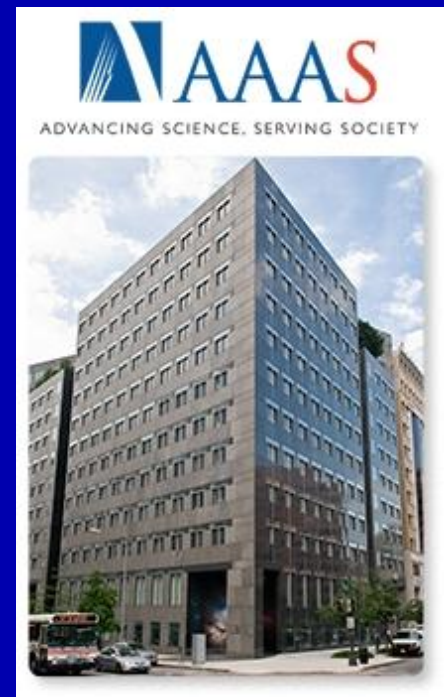
# ABOUT SCIENCE

- Founded in July 1880
- Largest paid circulation of any peer-reviewed general science journal
- Reaches an audience of millions through Web properties
  - Early adopter of Web channel for content (second journal put online by HWP)
- Science brand extended into several other journals and properties, all online-driven
  - Science Signaling
  - Science Translational Medicine
  - Science Careers



## ABOUT AAAS

- Global organization, serving individual members and 262 affiliated societies
- Mission: “Advance science, engineering, and innovation throughout the world for the benefit of all people”
  - Science policy advocacy and information
  - Education initiatives and public and press outreach
  - Science workforce diversity and opportunity
  - Advance international cooperation in science
  - Publishing (including *Science* and affiliated products)



## THE CHALLENGE OF NETWORKED INFORMATION

- Publishers must still be publishers – but also:
  - Business model innovators
  - Indexers and search-engine optimizers
  - Content enhancers and managers
  - Multimedia producers
  - Data stores, data visualizers, data syndicators
  - Social-media mavens
  - Technology companies
  - “Post-bibliometricians”

## PUBLISHERS AS . . . BUSINESS MODEL INNOVATORS

- Open access
  - The “elephant in the room” for traditional journals (and the societies that depend on them)
  - Current networked information environment strongly rewards open information
  - But how to maintain viability?



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### bmj.com upsets Google

23 Mar, 12 | by BMJ Group

Two friends of mine are about to buy a domiciliary care business, and over dinner the other week we discussed their website and how effective search engine optimisation can ensure it shows high in any Google search.

Before long we were lamenting Google's business practices and commercial dominance, something I [blogged](#) about in late 2011. I had lots to say about this. Earlier that week I'd returned to work after a week's holiday and learned that Google had de-indexed bmj.com, apparently without notice.

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### BMJ Web Development Blog

Keep abreast of the technological developments being implemented on the BMJ journal websites.

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FROM: GOOGLE.COM/HASBRO/CNNMONEY

<http://bit.ly/GQjQqA>

## PUBLISHERS AS . . . MULTIMEDIA PRODUCERS

- Why multimedia?
  - Because we can
  - Because it serves users
  - Because it serves authors
  - Multimedia as data
  - Feeding multiple devices and channels
  - Plug into viral and external networks

## MULTIMEDIA AT SCIENCE

- *Science* Podcast – main introduction to our content for tens of thousands of users a week
- “Produced” video projects – more labor intensive; hit-and-miss success
- Author-supplied video – increasing as a quasi-standard part of papers





## PUBLISHERS AS . . . DATA STORES/VISUALIZERS/SYNDICATORS

- New focus on “Big Data”
- Data services: New frontier of publishing/outreach value
- Examples
  - Semantic enrichment of content
  - Data visualization (<http://bit.ly/TuCkSw>)
  - Syndication (and use) of linked open data (<http://linkeddata.org/>)

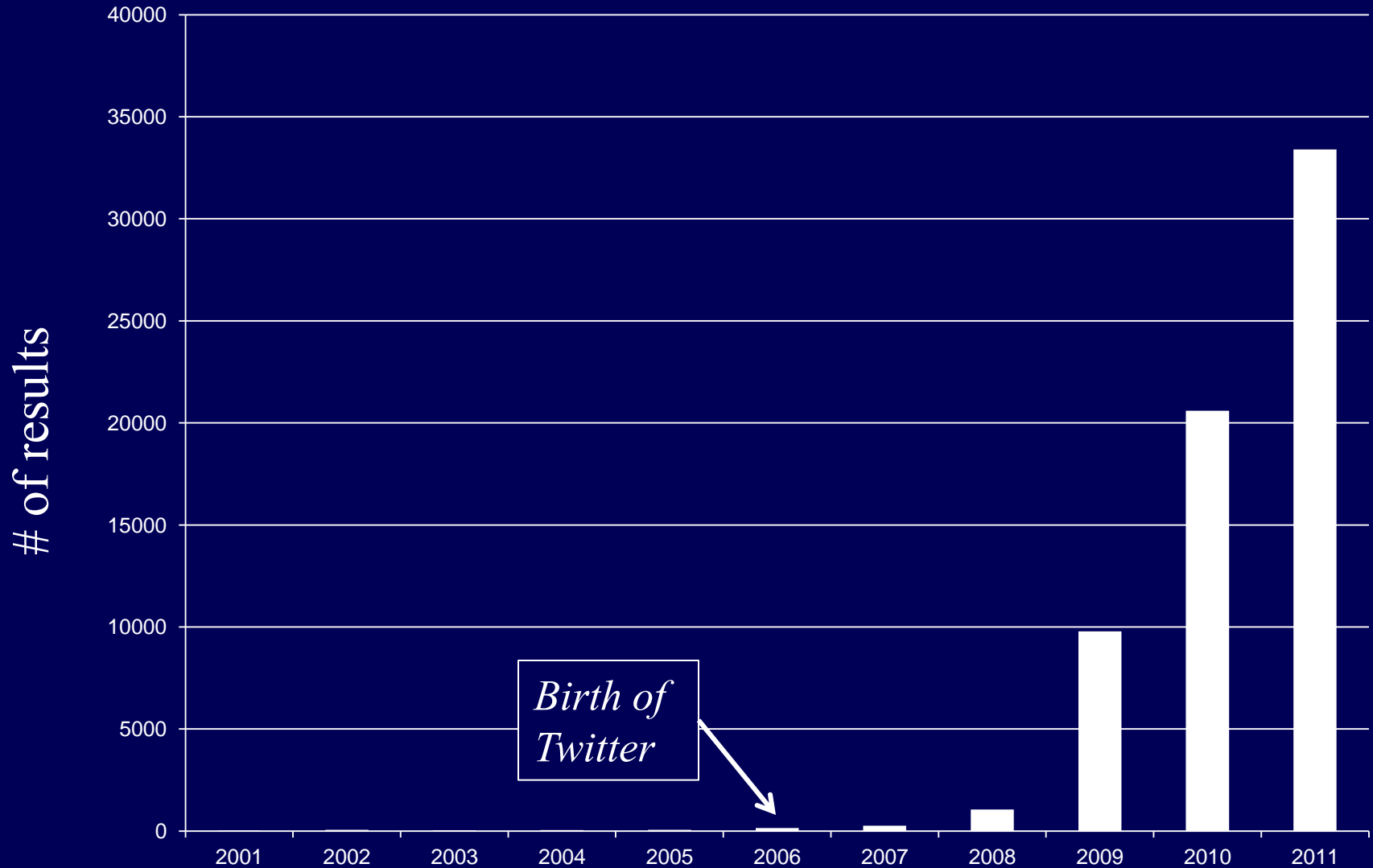
## PUBLISHERS AS . . . SOCIAL MEDIA MAVENS

- Why social media?
  - Because it's where users are
  - Increasing importance in content filtering/findability as alternative/supplement to search tools – word of mouth on steroids
  - Capturing (part of) the conversation
- *Science* Magazine:
  - >100K Facebook “likes”
  - ~70K Twitter followers

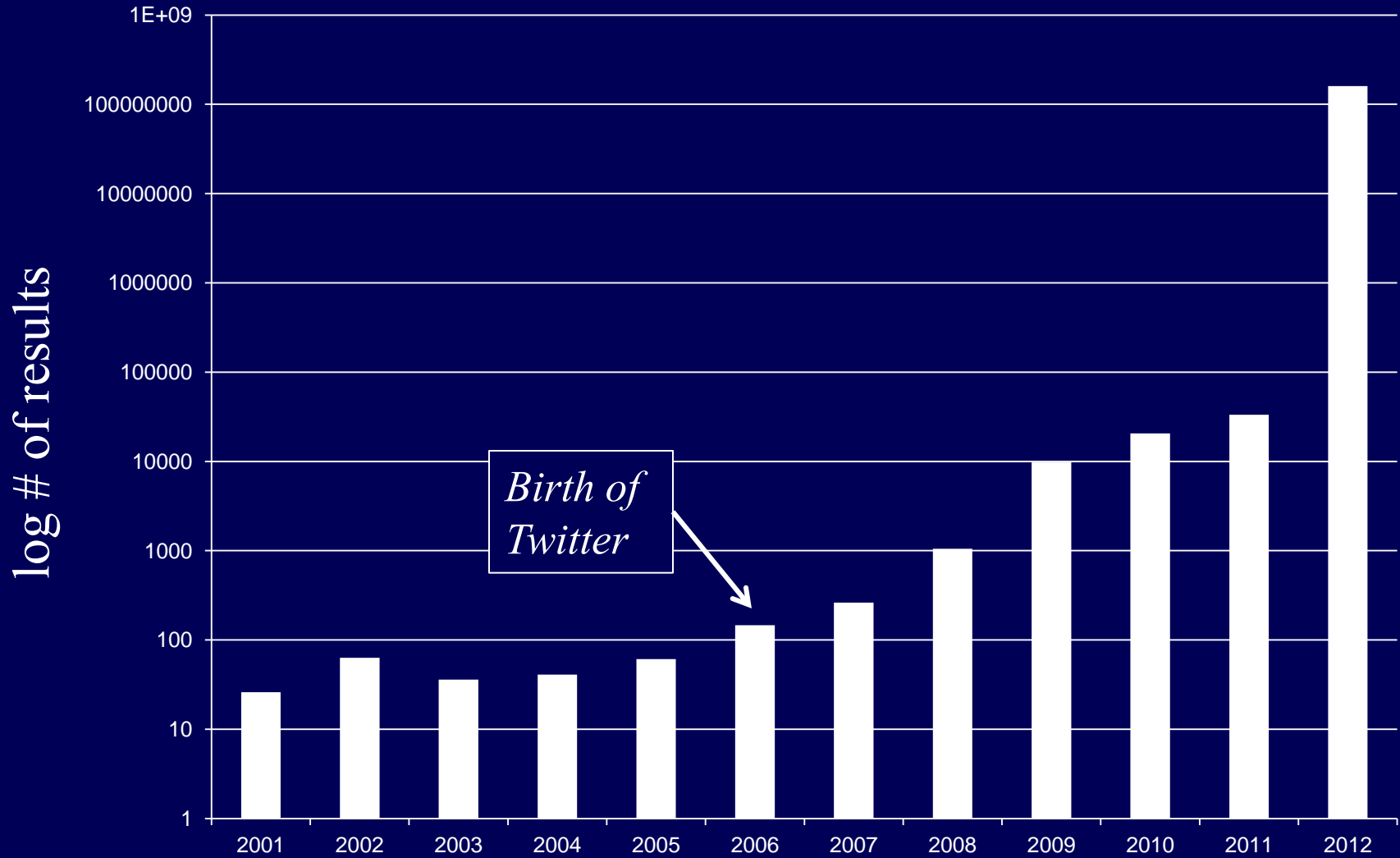
## PUBLISHERS AS . . . SOCIAL MEDIA MAVENS

- But . . .
  - Still something of an “unfunded mandate”
  - Good example of the role of external events in this information environment

# Number of search results on Google News including the word “tweet”: 2001-2011



# Number of search results on Google News including the word “tweet”: 2001-Aug 2012



## PUBLISHERS AS . . . TECHNOLOGY COMPANIES

- Proliferation of platforms and channels for information
- Example of mobile:
  - Managing costs of development and experimentation
    - Example: “App or Web” decision
  - Multiple quasi-standards (Apple, Android, etc.)
  - Measuring real uptake and usage
- Other examples: pretty much everything I’ve talked about thus far

## PUBLISHERS AS . . . “POST-BIBLIOMETRICIANS”

- Old (print) reality: Scarce, qualitative information on real usage
- New (networked) reality: glut of quantitative information, but often very hard to interpret
- Article economy leading to new ways of measuring scientific impact (“alt metrics”)
  - Community driven
  - Challenge to journal system
  - Journals as brands rather than objects

## BOTTOM LINE: WE LIVE IN INTERESTING TIMES

- Incredible opportunities for information and interaction . . .
- . . . but glutted, extremely competitive information environment
  - “Information glut” is nothing new [cf. A. Wright, *Glut* (2008)] . . .
  - . . . but constantly disruptive business environment is
- Challenge of forward motion amid limited resources and threats to traditional business models
- For publishers, need to experiment at low cost, and relentlessly measure the result