

Why should I use social media?

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Audience poll

- Lift up your hands if you have used or currently use the following:
 - Facebook?
 - Twitter?
 - Written a blog?

Objectives

- Explain personal background and involvement in social media
- Define the term 'social media' and provide a brief history of the major roles it has played
- Provide examples of the power of social media and describe its growing impact in health care
- Outline my suggestions for how you can take advantage of social media



1. BACKGROUND

Background

- Professional student
 - ▣ DPhil / MSc at University of Oxford and MD/PhD at University of Alberta
- Began using Twitter in March 2011
 - ▣ No turning back
- Invited to start blogging on trusttheevidence.net in August 2011
- Focus on pediatrics, evidence based medicine, primary care and medical education



Links



Carl Heneghan [cebmblog](#)



Ami Banerjee [amibanerjee1](#)



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Dr Placebo [JeremyHowick](#)



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Swine flu drug harmful to children



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Medpedia

Publication bias: big problem for children

Peter Gill

Last edited 6th May 2012

A recent study in the journal *Pediatrics* reported that only 29% of clinical studies in children have been published. This finding reinforces previous studies that there is significant publication bias in paediatric studies. These findings are a cause for serious concern.

What is publication bias? Essentially, it is the selected publication of studies based on the results, such as only publishing studies that demonstrate a drug works while not publishing studies that demonstrate harms.

Publication bias is a serious problem in healthcare and can have a large influence on treatment decisions by only providing limited information. Researchers have demonstrated substantial publication bias in certain areas such as the antidepressant medication reboxetine.

Several initiatives have been spearheaded to help reduce publication bias. The creation of open-access journals have shifted the focus from the importance of the results (as judged by a journal editorial committee) to the methodological rigour by which the study was completed.

But more importantly has been the creation of online trial registries, such as [ClinicalTrials.gov](#) launched in 2000. These registries serve as central databases of all the current and on-going clinical studies. Registration is optional, however in 2005 the ICMJE made registration of clinical trials as a pre-requisite of publication. Although this does not represent all journals, it sent a strong message of the importance of registration.

However despite the creation of trial registries, less than half of US based National Institute of Health (i.e. government) funded trials in children were registered on [ClinicalTrials.gov](#). Another important finding was the lack of information included on the registries. One-third of all clinical studies terminated early did not provide any information about why they were stopped. The situation was similar for suspended studies with one quarter not providing information.

Were these studies stopped because of harms? Were the investigators no longer able to recruit children to enroll? Whatever the reason the studies were stopped, this information must be made public.

Registration of all clinical studies involving children must be made mandatory. This is the only way to minimise publication bias and increase the reporting of research. This would create massive industry uproar, but is it ethical to enroll children in a clinical study without having it publicly registered? At a minimum any trial that receives government funded must be registered.

However registration of studies is only one element of the formula. What about the dissemination of the results? Less than 10% of completed studies in children had results posted and publicly available. With the low publication

Navigator

Search this site:

Search

Twitter TrustTheEvidence.net



Yep a complete mess RT @bengoldacre: Does FDA monitor implants? Not really. Neither does Europe. <http://t.co/AOHS3XDX> t'awesome @ProPublica

Four Medical Implants That Escaped FDA Scrutiny - ProPublica <http://t.co/QA9LFNy1> via @propublica

Just voted RT @doc2doc: Does collaboration with the drug industry affect clinical decisions? @ABPI_UK @cebmblog <http://t.co/loXqS0Vn>

Free Data Journalism Handbook launched <http://t.co/KJZTHiTY> worth a look at

The Golfball Index <http://t.co/159kS7Vn> still not performing well

Search the TRIP Database

Search on TRIP database!



Recent blog posts

- Publication bias: big problem for children
- Increasing access to journals through peer reviewers



2. WHAT IS SOCIAL MEDIA?

What is 'social media'?

- Social media is a “**decentralized system whose participants took care of distribution, deciding collectively which messages to amplify through sharing and recommendation.**” The Economist
 - ▣ Participants in such a system are a “**networked public**” rather than an “audience”
- Not a new concept... “**Five centuries before Facebook and the Arab spring, social media helped bring about the Reformation.**” The Economist
 - ▣ Luther’s ‘95 Theses on the Power and Efficacy of Indulgences’ spread throughout Christendom within weeks

Social media in the 21st century

- Major role in 'Arab Spring'
 - ▣ Used to organize and communicate despite attempts at censorship
 - ▣ Toppled autocratic regimes
- Growing role in health care
 - ▣ 1 in 3 Americans use social media to find medical information (Source: Digital Medicine)
- Today social media refers to **“a set of web-based and mobile technologies that allow people to monitor, create, share or manipulate text, audio, photos or video, with others.”** Canadian Medical Association
 - ▣ Unidirectional (e.g. blog) and multidirectional (e.g. online forum)

Key social media tools

- Facebook
 - ▣ World's most popular social networking site with >900 million active users
 - ▣ Share a variety of information by generally interacting with 'friends'

- Blogging
 - ▣ Online interactive journal or website written by an individual or an organisation
 - ▣ Many free services (e.g. blogger.com or wordpress.org)

Twitter

- Social networking service that allows users to send and read “tweets” or short messages up to 140 characters long
 - ▣ Users share information and web links instantly among “followers”
- Individuals can respond to tweets, enabling debate and discussion
 - ▣ Message propagation occurs through “retweeting”
- Can send direct confidential messages back and forth
- Hashtags (e.g. **#ccsymp12**) facilitate indexing, searching and remote conference participation
 - ▣ Ask questions via Twitter using **#ccsymp12** during presentation remotely
- ‘Push’ vs ‘pull’ information

Home

Sandeep Pulim MD @MDLinx 3m Chronic pain in the outpatient palliative care clinic: American Journal of Hospice and Palliative Medicine bit.ly/LjF8LL #ER

Al Jazeera English @AJEnglish 4m On the Blog: Libya's escalating gun problem aje.me/JgOHum

Naho News @NAHO_NEWS 3h Careers: Nurse Practitioner Primary Health - Job Description : Anishnawbe Health Toronto an accredited community he... ow.ly/1jBBWd Retweeted by @NPAlberta

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Sciencescape @sciencescape 15m Your Inner Bugs Are What You Eat: Diet may impact diversity of gut microbes bit.ly/Jgia68 Retweeted by @statsepi

Sandeep Pulim MD @MDLinx 7m The subcutaneous melolabial island flap for nasal alar reconstruction: A clinical review with nuances in te... bit.ly/LjCVQq #ENT

Paris Meilleur @parismeilleur 8m #onpoli MT @ChildCareON: Great meeting with @LaurelBrotten, minister of education for Ontario. Talking about the future of child care!

Journals by peterjgill

Cochrane Collab @cochranecollab 3h #cochrane Invitation to participate in drafting Cochrane interventions for the 2012 World Health Assembly ow.ly/1jBAGU

Cochrane Collab @cochranecollab 3h #cochrane Pre-hospital and Emergency Care Field registered - The Cochrane Collaboration is pleased to announce the r... ow.ly/1jBAGV

Cochrane Collab @cochranecollab 4h RT @cntapp: Tommorrow I am heading to the Cochrane Symposium to hear Dr. Noralou Roos speak about Engaging with the Evidence. Follow...

ACP @ACPinternists 4h No compelling reason for warfarin over aspirin for LVEF, study indicates bit.ly/Jeg1to ACP HospitalistWeekly article

PLoS ONE @PLoSONE 4h Stone-throwing chimp is back -- And this time it's personal bit.ly/IUZmxo in @ScienceNOW

NEJM @NEJM 4h Newest Image Challenge: nej.md/pPbCdb. What's the diagnosis?

ACP @ACPinternists 5h Med school slots continuing to increase, AAMC says bit.ly/Jeg1to American College of Physicians HospitalistWeekly article

Evidence by peterjgill

Irfan Dhalla @IrfanDhalla 31m We need a similar federal investigation re: prescription painkillers in Canada. RT @ProPublica propub.ca/Jghv6a

John Kennedy @JohnnyCosmos 7h j.mp/JzcHI9 brilliant, frank demolition of our broken #ukcare system. Time for honesty, time for a revolution. Retweeted by @petermbenglish

EBM Evidence Based Med @Evidence... 2h Guidelines left in ministry twilight zone: ... on the director-general of health's grilling by Waitemata DHB sta... bit.ly/JbGXXK

Cochrane Collab @cochranecollab 5h Invitation to participate in drafting #Cochrane interventions for the 2012 World Health Assembly: ow.ly/aO9co Retweeted by @DougSalzwedel

Camilla Tapp @cntapp 7h Tommorrow I am heading to the Cochrane Symposium to hear Dr. Noralou Roos speak about Engaging with the Evidence. Follow along at #ccsymp12 Retweeted by @DougSalzwedel

EvidenceNetwork.ca @Evidence... 5h Let's Treat Our Hips the Same Way We Treat Our Cars (@HuffPostCanada): ow.ly/aOkul #cdnhealth #hospitalists

richard horton @richardhorton1 6h Is this really the way to get the best candidate into the right job? I hope WHO and Dr Chan robustly resist such lobbying. RBM needs merit.

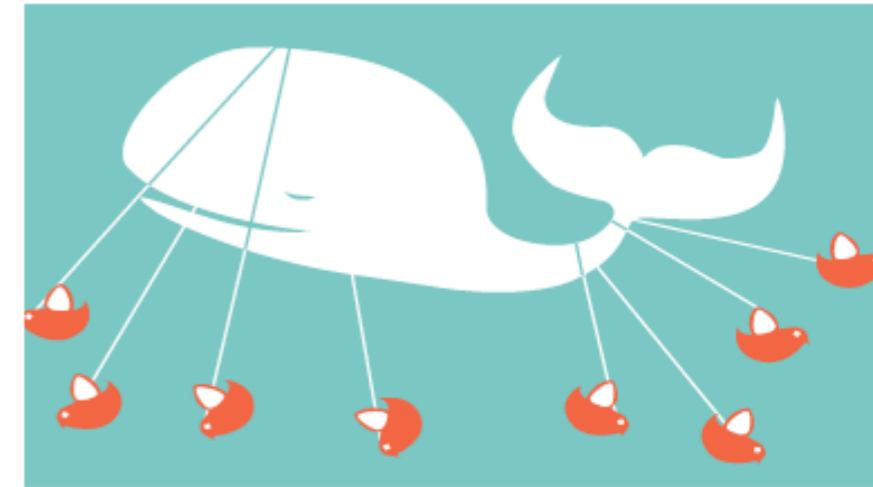
3. SOCIAL MEDIA IN HEALTH CARE

Opposition to the NHS Health Bill

MEDICINE AND THE MEDIA

The other Twitter revolution

Social media sites allow immediate scrutiny of the government line on the NHS reforms and give voices to the voiceless, say **Martin McKee and colleagues**



Twitter overload: keeping government in check

- Frustration with lack of trustworthiness of information
 - ▣ For example, UK Prime Minister David Cameron quoted to say that “**someone in this country is twice as likely to die from a heart attack as someone in France.**”
 - ▣ Twitter debate revealed selective use of studies, methodological research flaws and planned rebuttal by economist at think-tank

- Twitter provides a voice for the few enthusiasts keen to read the 353 pages of draft legislation

Dark view of medicine

- Unique insight into the minds of leaders in medicine
 - ▣ *“In sudden bursts of candor, humor, and cynicism, Horton has been tweeting thoughts that don’t often see the light of day.”* Larry Husten, Forbes



richard horton

@richardhorton1

Welcome to a permanent attack on the present
london ·

- Describes editorial dispute with authors to publish paper in NEJM and Lancet
 - ▣ Evidence of journal manipulation by industry?

“ When papers get salami sliced and divided between NEJM and us, it gets complicated. And sometimes nasty. And today, even threatening.

Now put to rest a terrible authorship dispute that has blocked an accepted paper for months. Crucial lesson: agree authors before starting.

The mother of all authorship disputes has broken out.

When papers get salami sliced and divided between NEJM and us, it gets complicated. And sometimes nasty. And today, even threatening.

In the saga of our salami sliced paper at NEJM and Lancet, both journals are now saying, it's us or no go. This is getting silly.

NEJM/Lancet salami story, Part 164: US author writes to report “significant disagreement” among authors. We are told to suspend review...

Authors on both versions of what seems to be largely the same paper with our two journals to gather and resolve their dispute. We wait...

Lancet/NEJM salami latest. From Principal Investigator. “Approval [of the drug in question] has already occurred in the US, yet...

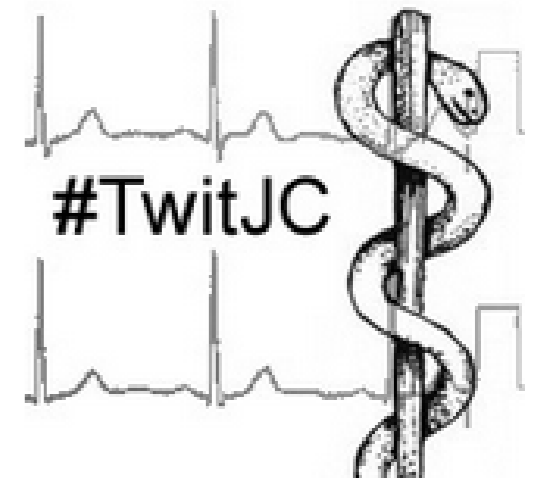
...private insurers are slow to place it on their formulary. A major publication is typically how this occurs in the US, and it is...

important to be in a journal typically recognised by US-based companies. This would include NEJM...Therefore, this publication is critical..

...to [company A's] ability to “market” their product. Lancet, on the other hand, will aid [company Y] quite nicely.”

Twitter journal club

- Similar to traditional journal club except on Twitter
 - ▣ Started by medical student in Cambridge in 2011
 - ▣ Over 2000 followers
- Meets every 2 weeks at 7pm GMT on Sunday evenings
 - ▣ Uses the hashtag #TwitJC
- Papers announced on Twitter 2-3 days prior
 - ▣ Introductory post published
 - ▣ Discussion summary and transcript posted
- Select significant papers that are relevant to a broad audience
 - ▣ Anyone can suggest papers





TwitJournalClub @twitjournalclub

29 Apr

MT @jonjhiltonHang on a minute, noticed how few patients actually made it to the study. Just 7% of PCI & only 15% of CABG analysed #twitjc

Expand



Jamie Green @drjamiegreen

29 Apr

@twitjournalclub #twitjc - is it safe / ethical to randomise such a study?

[View conversation](#)



Northern Doctor @northern_doctor

29 Apr

But I also think that if complicated statistical data-manipulation is going to be done, it should be better explained #twitjc

Expand



Jon Hilton @jonjhilton

29 Apr

#twitjc surely that is a massive confounding factor. Might there be some other characteristic being inadvertently represented?

Expand



Truffle, Also Clive @trufflethebendy

29 Apr

Have to agree with @northern_doctor here I think #twitjc

Expand



Northern Doctor @northern_doctor

29 Apr

Definitely a place for observational studies like this one, as long as they're not over-interpreted! #twitjc

Expand



Jon Hilton @jonjhilton

29 Apr

#twitjc Hang on a minute... Just noticed how few patients actually made it to the study. Just 7% of PCI and only 15% of CABG were analysed

Expand



TwitJournalClub @twitjournalclub

29 Apr

Final point - How much reliance should we put on such non-randomised studies that make use of the available data like ASCERT? #twitjc

Changing world of research

- Academics are losing faith in the system
 - ▣ **Peer review** is slow and favors conventionality
 - ▣ **Citation counting** is helpful but insufficient and takes years
 - ▣ **Journal impact factor** incorrectly used to measure impact of individual article
- More and more research is moving online
 - ▣ Articles stored in online **reference browsers** like Mendeley and Zotero (each with >40 million articles)
 - ▣ Hallway conversations end up in **blogs**
 - ▣ Up to one-third of scholars are on **Twitter**
 - ▣ Datasets increasingly **stored** and shared online

Altmetrics

- Tracing the use of this information is called **Altmetrics**
 - ▣ *“creation and study of new metrics based on the Social Web for analyzing, and informing scholarship.”*

- Superior to conventional measures of impact
 - ▣ Diversity of language provide **complex measurement** of *“diverse scholarly ecosystem”*
 - ▣ Measure **aggregate** impact of research
 - ▣ Track impact outside of **white tower**
 - ▣ Fast and open
 - ▣ Reflect **article** not venue

Article Usage ⓘ

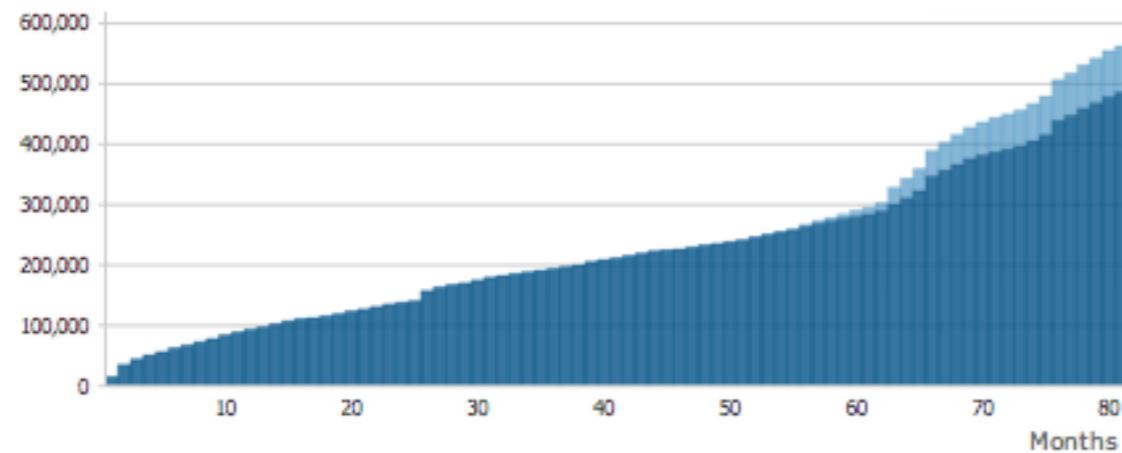
Total Article Views

562,700

Aug 30, 2005 (publication date)
through Apr 23, 2012*

| | HTML Page Views | PDF Downloads | XML Downloads | Totals |
|--------|-----------------|---------------|---------------|---------|
| PLoS | 399,822 | 84,413 | 1,860 | 486,095 |
| PMC | 66,192 | 10,413 | n.a. | 76,605 |
| Totals | 466,014 | 94,826 | 1,860 | 562,700 |

Cumulative Views



*Although we update our data on a daily basis, there may be a 48-hour delay before the most recent numbers are available. PMC data is posted on a monthly basis and will be made available once received.

Citations ⓘ

| | | | | |
|-----|-----|-----|-----|--------|
| | | | | |
| 738 | 381 | 134 | 665 | Search |

Social Networks ⓘ

| | | | |
|-----|----|------|---|
| | | | |
| 336 | 18 | 2500 | 3 |

Press and Media Coverage ⓘ

Metrics ⓘ

Total Article Views: **562,700**

Citations

[CrossRef \(381\)](#)
[PubMed Central \(134\)](#)
[Scopus \(738\)](#)
[Web of Science® \(665\)](#)

Social Networks

[CiteULike \(336\)](#)
[Connotea \(18\)](#)
Facebook (2500)
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Join the conversation



4. CAPITALIZING

Why should you use social media?

- Engage patients, researchers, clinicians and consumers by creating **dialogue** and **debate**
- Increase **dissemination** of your educational message and research results immediately
- Restriction of messages to 140 characters forces **brevity**
- **Free** to use, available to everybody
- Network is **horizontal**
- Tide is shifting...

Moving forward

1. **Engage** – To capitalize on social media, people must use social media
2. **Connect** – Link up with others of similar interests and create a community related to your interests
3. **Educate** – Begin disseminating information that YOU find important, either as an individual or as an organization
4. **Impact** – Track and measure the impact of your social media strategy

Conclusion

- Social media is driven by **people** who are passionate about the information they *disseminate and share*
 - ▣ Living network that is constantly adapting and changing
- Opportunity to create “***networked public***”
 - ▣ Engage the *patient, the media, the researchers, the clinicians, the consumers*
 - ▣ Platform to disseminate high-quality educational material and research worldwide



QUESTIONS?

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