How to use social media engagement to ensure research's real-world impact

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October 9, 2018
CARA webinar

How can you help research to have an impact upon "the real world"?

How policymakers and researchers connect

1988   2018

Southern African HIV Clinicians Society
February 12, 2013 ·

Systematic Review Confirms Efavirens as Safer Option than Nevirapine for Treatment of Naive Adults and Children

In an article for AidsMap, Michael Carter highlights the important findings of a recent systematic review published in AIDS comparing the safety of Efavirens and Nevirapine in adults and children. The review set out to measure drug discontinuation as a result of any adverse event as a primary outcome for their study. They established that in treatment naive patient's, those treated with nevirapine (Viramune) were twice as likely to discontinue medication due to and adverse event than those taking efavirenz. They also evaluated specific toxicities as a secondary outcome. They found that while severe hepatotoxicity severe skin toxicity and severe hypersensitivity reactions were more likely to occur among patients on NVP, however severe CNS-events were more likely to occur in patients using efavirens. Overall the investigators felt their results support "a move towards efavirenz-based therapy as the preferred first-line treatment regimen for HIV treatment". Do you agree?

Link to AIDS publication: http://journals.lww.com/
.../Adverse_events_associated_with_ne...

Link to related AidsMap article: http://www.aidsmap.com/Systematic-review-confroms-that-e.../.../

Adverse events associated with nevirapine and efavirenz-base... : AIDS
Introduction: Since 2002, the World Health Organization has recommended either nevirapine (NVP) or efavirenz (EFV) as part of first-line antiretroviral therapy. These two drugs are known to have differing toxicity profiles, but the clinical importance of these toxicities overall is not well estab...
JOURNALS.LWW.COM

👍 Like   💬 Comment   ➤ Share

Efavirenz usage?

⬆ 3 points · 2 comments submitted 6 months ago by efatest911 to r/hivaids

Hi, So a year ago I was on Atripla and had serious side effects. I think the side effects were mostly caused / contributed by Efavirenz .

Tim Lahey
@TimLaheyMD

Follow

We knew treating #HIV with efavirenz could cause CNS side efx but 2x risk of suicidality is worse than unexpected.

ncbi.nlm.nih.gov/pubmed/24979445

3:39 PM - 7 Jul 2014

5 Retweets 3 Likes

💬 1   🔁 5   ♡ 3

Tweet your reply

Nina Martinez @marganina · 9 Jul 2014
Replying to @TimLaheyMD
.@TimLaheyMD well dang, I consider myself lucky w only 3.5 mos of sleep-maintenance insomnia bc of EFV. (I d/c-ed & went back to prior reg).

💬   🔁   ♡ 1

Altmetrics are the traces of those discussions

- Bookmarks
- Tweet/posts
- Comments
- Policy citations
- News mentions
- Blog posts
- And much more...

Evidence of engagement with any type of research product

About Altmetric

A data science company that tracks when research is shared and discussed online

- By the numbers:
  - 11.8M documents
  - 87.7M mentions
    - 246,000 mentions in the past 1h
  - 17 types of data sources

- Policy documents
- News
- Blogs
- Twitter
- Post-publication peer-reviews
- Facebook
- Sina Weibo
- Syllabi
- Wikipedia

- Google+
- LinkedIn
- Reddit
- Faculty1000
- Q&A (Stack Overflow)
- Youtube
- Pinterest
- Patents

About Altmetric

A data science company that tracks when research is shared and discussed online

- Beyond the numbers:
  - Who's discussing research (mentioners and their demographics)
  - What they are saying
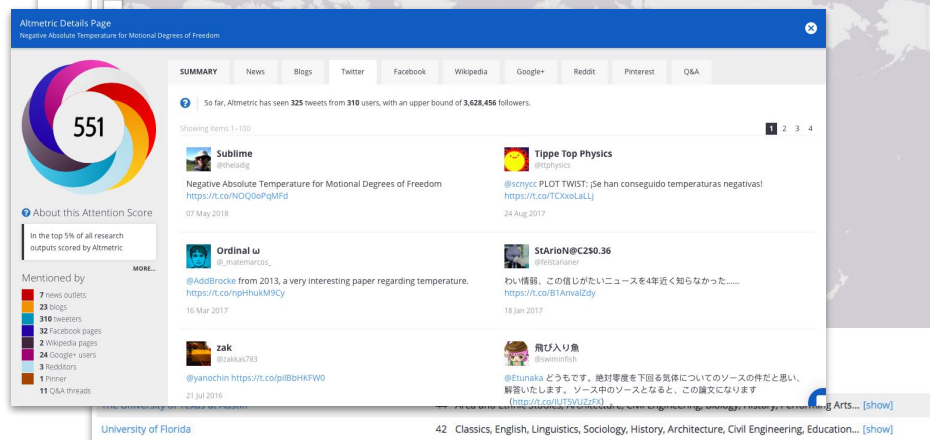
Altmetrics mostly measure *attention.*

Impact is usually found
"beyond the numbers"...

...but *numbers* help you know
where to look!

Which platforms are most effective?

How long does policy impact take?

What should <u>you</u> recommend to your
 researchers?

What we'll cover today

★ Knowledge mobilization via public policy

★ What do we know about online engagement for work with policy impacts?

★ Evidence-backed recommendations for getting research into policy

★ Questions/Discussion

Knowledge mobilization in public policy

Researchers *want* "real world" impact.

How research influences public policy

How policymakers "utilize" knowledge

Table 1   Stages of Knowledge Utilization

Stage 1 Reception:
I received the university research pertinent to my work.

Stage 2 Cognition:
I read and understood the university research that I received.

Stage 3 Discussion:
I participated in meetings for discussion and popularization of the aforementioned university research.

Stage 4 Reference:
I cited university research studies as references in my own professional reports or documents.

Stage 5 Effort (adoption):
I made efforts to favor the use of university research results.

Stage 6 Influence:
University research results influenced decisions in my administrative unit.

Adapted from Knott and Wildawsky (1980).

Landry, Lamari & Amara, 2003

How research is cited in policy

data used instrumentally

argument used strategically

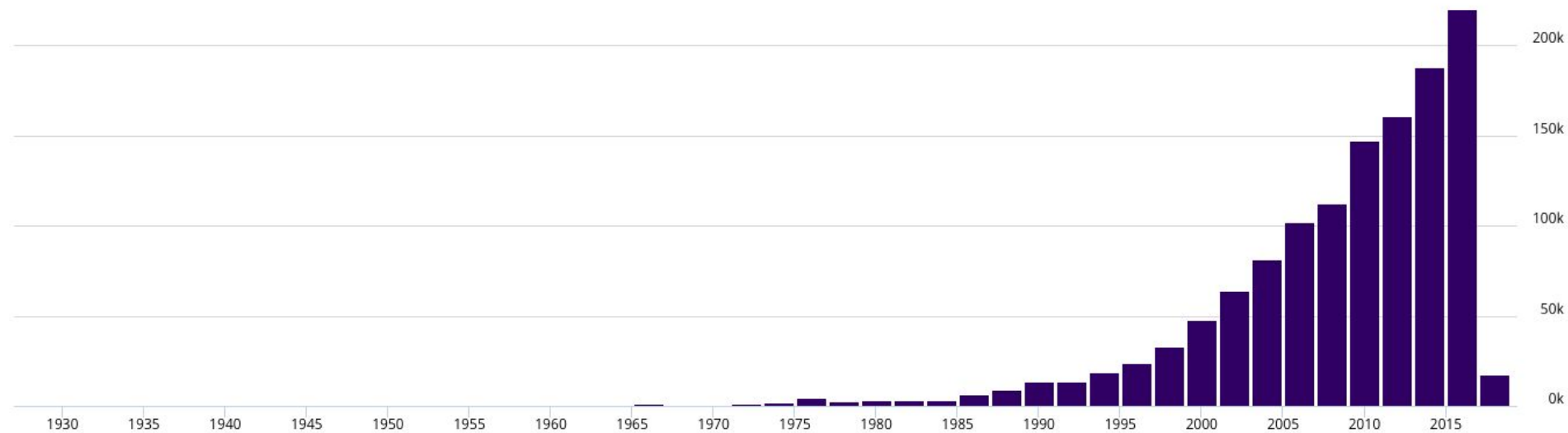ideas that influence the policy climate and
 agenda-setting
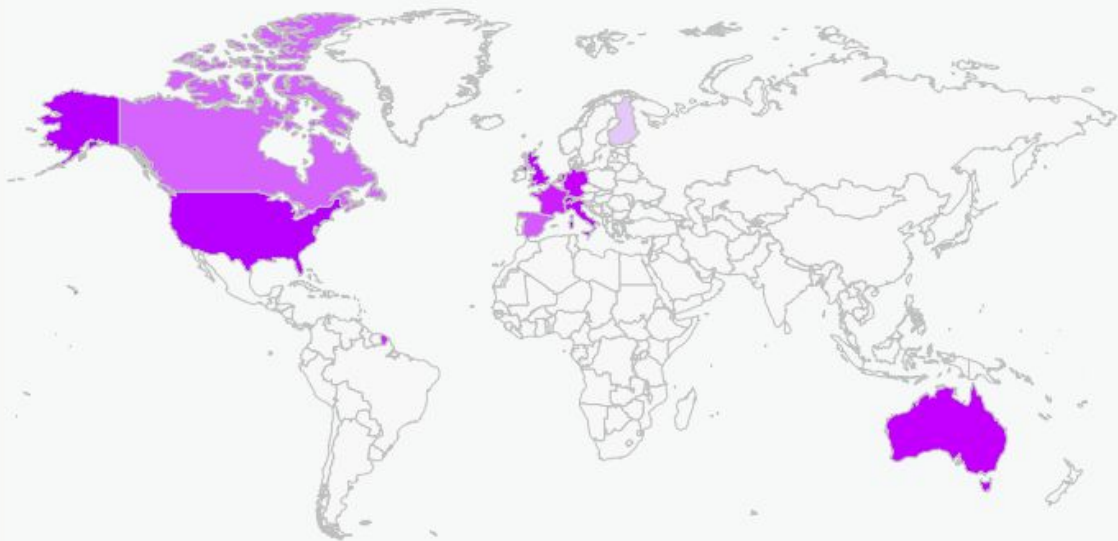
Weiss in Haynes et al (2011)

What a policy cite looks like

Policy citations to research over time

COUNTRY	TOTAL POLICY DOCS	UNIQUE SOURCES
United States	579,333 (45.1%)	22 (40.7%)
Switzerland	285,774 (22.3%)	7 (13.0%)
United Kingdom	186,311 (14.5%)	13 (24.1%)
Australia	62,561 (4.9%)	1 (1.9%)
Italy	62,336 (4.9%)	3 (5.6%)
Netherlands	42,265 (3.3%)	2 (3.7%)
Luxembourg	36,131 (2.8%)	1 (1.9%)
Germany	22,668 (1.8%)	1 (1.9%)
France	4,629 (0.4%)	1 (1.9%)
Spain	978 (0.1%)	1 (1.9%)
Canada	691 (0.1%)	1 (1.9%)
Finland	9 (0.0%)	1 (1.9%)

General trends (Haunschild & Bornmann, 2017)

"Less than 0.5% of the papers published in different subject categories are mentioned at least once in policy-related documents."

General trends (Bornmann, Haunschild & Marx, 2016)

These trends change, depending upon the subject area:

"…1.2 % (n = 2341) out of 191,276 publications on **climate change**…have at least one policy mention."

General trends (Tattersall & Carroll, 2018)

Cited in one policy document

Most often journal articles

Time lag of 3 mo to 31 years

Subjects: medicine, dentistry, and health, social science and basic science

General trends (Vilkins & Grant, 2017)

Common sources: journal articles, AU government reports, AU business info
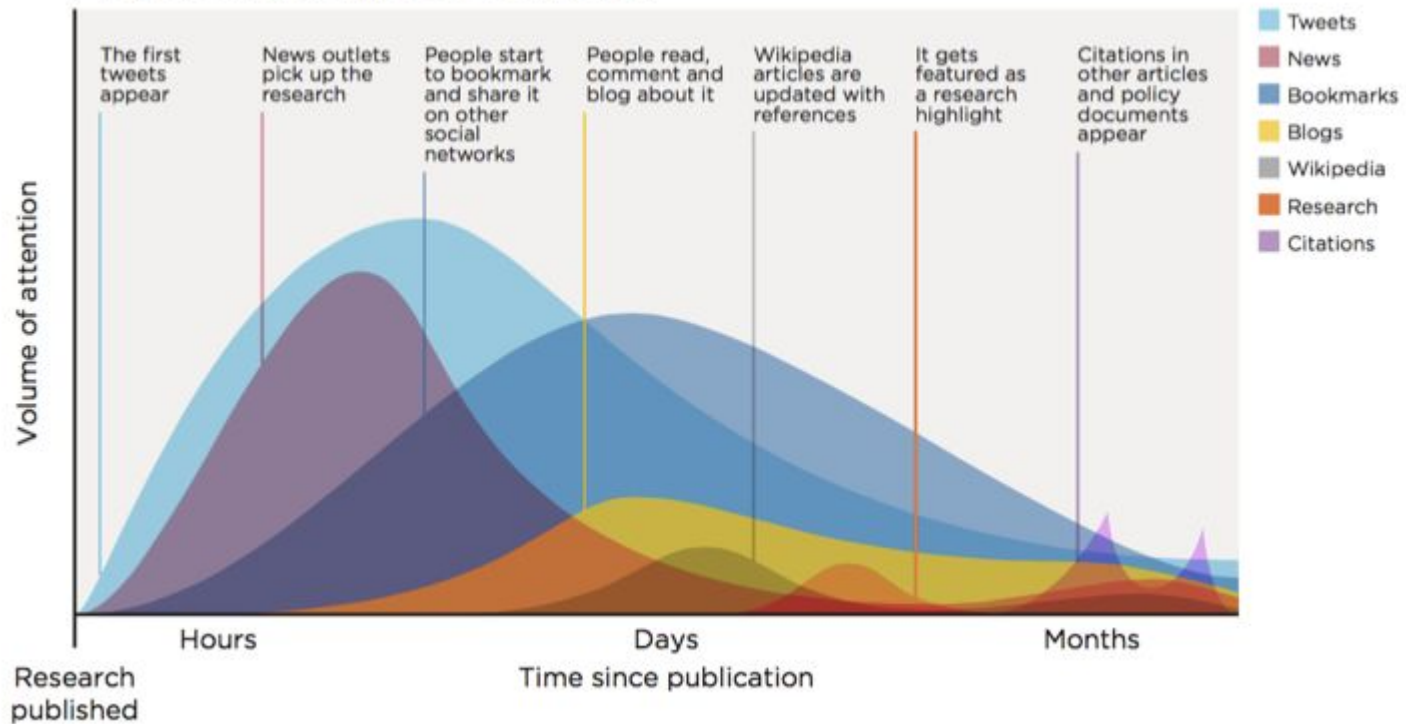
57% Open Access

Majority of cited research < 5 years old

Online engagement for policy-relevant research

A typical timeline of attention

"High attention" research gets cited more quickly and often in policy

Time to first policy citation:

1.7 years (high attention)

3.4 years (baseline)

Number of policy citations:

1.18 citations (high-attention)

1.09 citations (baseline)

Konkiel, 2016

Altmetric data source	Highest Attention Articles			Other articles with scores < 0		
	Max	Mean	σ	Max	Mean	σ
Bloggers	208	14.48	21.76	6	0.22	0.73
Twitter users	2604	350.01	365.45	70	2.81	9.16
News articles	70	14.73	13.20	3	0.08	0.37
Google+ posts	114	9.59	17.24	4	0.08	0.46
Facebook posts	2376	70.88	235.75	1	0.35	1.75
Wikipedia	63	2.44	6.22	2	0.09	0.34
Mendeley	**1982**	**222.23**	343.95	466	41.5	74.25

Konkiel, 2016

Predicting policy citations

(Kale, Siravuri, Alhoori, Papka, 2017)

News

Blogs

Wikipedia

Mendeley

Reddit
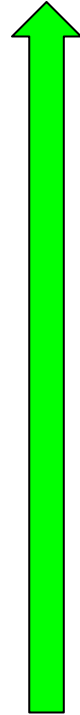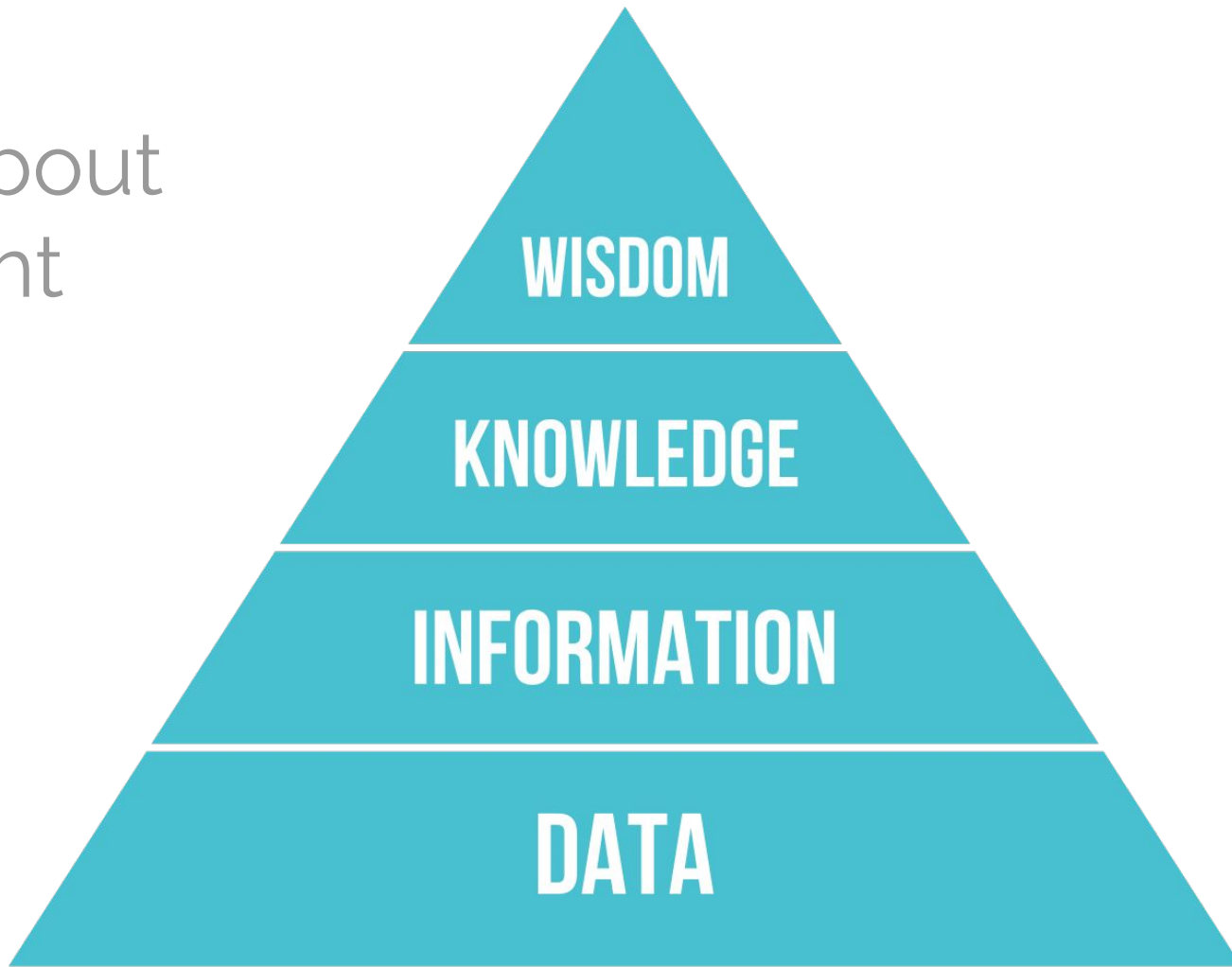
Youtube

Google+

Twitter

Facebook

Sina Weibo

Platform	Random Forest	Multinomial Naive Bayes
peer-review	0.273595	4.4267
Google+	0.197488	3.4210
Reddit	0.151016	4.4087
video	0.098035	4.9458
Twitter	0.068745	2.2421
Weibo	0.088242	3.7988
Mendeley	0.030116	0.3210
Wikipedia	0.026027	4.9668
blogs	0.018631	4.4571
Facebook	0.016189	3.2314
news	0.008926	3.7307

Evidence-based recommendations for policy traction

It's about insight

WISDOM

KNOWLEDGE

INFORMATION

DATA

1. Encourage online engagement

Especially in…

    Peer review sites (Pubpeer)

    Reddit (AMAs, etc)

    Youtube

    Twitter

2. Encourage Open Access

OA funds & monograph subventions

OA mandates

Help align incentives for OA work

3. Encourage articles & industry pubs

CC BY-SA 3.0 Asemi / Wikipedia

Suggested pathways

Consultations with faculty

Grant engagement plans

Setting internal policies re: engagement

Promotion & tenure

Grant review criteria

Thank you!

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@altmetric on Twitter

References

- [Bornmann, Haunschild & Marx, 2016](#)
- [Haunschild & Bornmann, 2017](#)
- [Kale, Siravuri, Alhoori, Papka, 2017](#)
- [Konkiel, 2016](#)
- [Landry, Lamari & Amara, 2003](#)
- [Tattersall & Carroll, 2018](#)
- [Vilkins & Grant, 2017](#)
- [Weiss in Haynes et al, (2011)](#)

For more information, [check out this LSE Impact Blog post](#)