Publications in a digital world

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MedComms Networking Event

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ENVISION PHARMA GROUP
Routes of access to medical information have changed

Passive – Information finds you
- RSS, PubMed alerts, Google alerts
- eTOCs, Citeulike, Mendeley

Peer-to-peer referral
- Mendeley
- Most read
- Blogs, Twitter, Facebook
Modes of consumption are also shifting to multimedia channels – should be a consideration in Journal selection.
Congresses are increasingly virtual in their reach

The #ASCO16 Influencers

Top 10 by Mentions
- @ascco 5,656
- @bmsnews 3,639
- @vph 2,970
- @abbvle 2,737
- @mtmdphd 1,442
- @ascopost 1,191
- @sloan_kettering 1,159
- @genentech 916
- @merck 503
- @medscape 842

Top 10 by Tweets
- @mtmdphd 1,435
- @sorena997 1,318
- @onced 813
- @ci4cc 611
- @drbucksler 593
- @culturperfectmoms 458
- @ljosico99 457
- @nycdoc29 444
- @brcaresponder 319
- @icsmchat 310

Top 10 by Impressions
- @theeconomist 88,499,685
- @mtmdphd 16,601,505
- @bmsnews 13,374,149
- @ascco 12,354,242
- @roche 10,472,284
- @forbes 9,601,135
- @dna barcode 7,172,267
- @astrazeneca 6,482,896
- @novartis 6,300,990
- @merck 5,843,006

Online reach far outweighs physical attendance

- Identify and monitor key influencers in the field
- Identify potential KOLs

Monitor “chatter” for mentions of drug and/or key competitors

http://www.symplur.com/
A growing trend

Number of Tweets (thousands) and impressions* (millions)

*The delivery of a post or Tweet to an account
SAN DIEGO — Meeting attendees are pushing back against the enforcement of severe restrictions on social media posts that discuss the American Diabetes Association (ADA) 2017 Scientific Sessions taking place here this week.

Since the meeting began on Friday, June 9, many of the attendees’ Twitter posts, including photographs from sessions, have been met by a polite yet firm appeal from the ADA asking them to delete their tweet.

"Thanks for joining us at #2017ADA! Photography isn’t allowed during presentations — we’d appreciate it if you would delete this tweet," reads a typical Twitter response from the ADA’s official handle, @AmDiabetesAssn.

Twitter users immediately began expressing anger and frustration over the seemingly draconian attempts to limit social media conversations at the association’s scientific sessions. Many say they see it as an unethical attempt to maintain a monopoly on data and educational effort.

"Those in power are counting on you to NOT speak up & to comply. Stop deleting. Start tweeting. Don’t be thanked for ur compliance." C Michael Gibson, MD, an interventional cardiologist at Beth Israel Deaconess Medical Center, Boston, Massachusetts, tweeted several times to his more than 300,000 Twitter followers. One prompted a long string of replies in agreement, as well as 150 likes and 90 retweets. Similar posts are also receiving brisk engagement.
Digital Journey of Data

- CSR
- Social media line
- Central data line
- News line
Most accessed resources are often non-journal in nature

Relative reach and use of peer-reviewed information resources, regulated- and non-regulated web-based information resources

### ADALIMUMAB

- **Other**
- **Rxlist.com**
- **NIH.gov**
- **Wikipedia.org**

Unregulated web-based resources

- Regulated web-based resources (e.g. Medscape)
- Independent review articles
- Primary and secondary manuscripts

Most reliable

Least reliable
Wikipedia views give a good “ball-park” metric of levels of interest in a drug or therapeutic area.

And Congress presentations impact viewership - PCSK9-related Wikipedia entries.
Assessing Journal Options
Consider the entire selection of offerings...

<table>
<thead>
<tr>
<th>Journal title</th>
<th>Impact factor</th>
<th>Circulation</th>
<th>Submission to acceptance</th>
<th>Acceptance to publication</th>
<th>Extenders</th>
<th>Social media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Clinical Oncology</td>
<td>20.98</td>
<td>26K</td>
<td>4 weeks</td>
<td>11-12 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annals of Oncology</td>
<td>9.27</td>
<td>9.3K</td>
<td>3-6 weeks</td>
<td>12-16 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESMO Open</td>
<td>-</td>
<td>-</td>
<td>1 week</td>
<td>2-3 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLoS</td>
<td>3.06</td>
<td>-</td>
<td>4 weeks</td>
<td>2-3 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Lancet Oncology</td>
<td>26.51</td>
<td>10.8K</td>
<td>1 week</td>
<td>2-4 weeks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Journal selection by level of social media activity….

- Journals matching the Medline subject “Pulmonary Medicine”, ranked by history of “social buzz” in the preceding 12 months
- Not a replacement for IF and other more traditional rankings
- Increasingly important as social media becomes more prevalently associated with journals
What is the proportion of KOLs?

- Over half of the followers are healthcare workers, doctors, nurses or scientists
- Another 18% are communicators – Teachers, authors/writers and journalists
  - Journalist following also raises the potential of mainstream news coverage

Demographics of followers may also be important

<table>
<thead>
<tr>
<th>Category</th>
<th>Followers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers</td>
<td>182</td>
<td>17.2%</td>
</tr>
<tr>
<td>Students</td>
<td>173</td>
<td>16.3%</td>
</tr>
<tr>
<td>Doctors</td>
<td>100</td>
<td>9.4%</td>
</tr>
<tr>
<td>Teachers</td>
<td>87</td>
<td>8.1%</td>
</tr>
<tr>
<td>Senior managers</td>
<td>73</td>
<td>6.9%</td>
</tr>
<tr>
<td>Scientists</td>
<td>69</td>
<td>6.4%</td>
</tr>
<tr>
<td>Journalists</td>
<td>69</td>
<td>6.2%</td>
</tr>
<tr>
<td>Authors/writers</td>
<td>45</td>
<td>4.3%</td>
</tr>
<tr>
<td>Consultants</td>
<td>38</td>
<td>3.4%</td>
</tr>
<tr>
<td>Sales/marketing</td>
<td>32</td>
<td>3.0%</td>
</tr>
<tr>
<td>Entrepreneurs</td>
<td>31</td>
<td>2.9%</td>
</tr>
<tr>
<td>Nurses</td>
<td>23</td>
<td>2.1%</td>
</tr>
<tr>
<td>Musicians</td>
<td>23</td>
<td>2.1%</td>
</tr>
<tr>
<td>Engineers</td>
<td>23</td>
<td>2.1%</td>
</tr>
<tr>
<td>Web developers</td>
<td>18</td>
<td>1.7%</td>
</tr>
<tr>
<td>Lawyers</td>
<td>18</td>
<td>1.7%</td>
</tr>
<tr>
<td>Artists</td>
<td>9</td>
<td>0.9%</td>
</tr>
<tr>
<td>Designers</td>
<td>9</td>
<td>0.9%</td>
</tr>
<tr>
<td>Media production</td>
<td>9</td>
<td>0.9%</td>
</tr>
<tr>
<td>Actors</td>
<td>5</td>
<td>0.4%</td>
</tr>
<tr>
<td>Chefs</td>
<td>5</td>
<td>0.4%</td>
</tr>
<tr>
<td>DJs</td>
<td>5</td>
<td>0.4%</td>
</tr>
<tr>
<td>Models</td>
<td>5</td>
<td>0.4%</td>
</tr>
<tr>
<td>Programmers</td>
<td>5</td>
<td>0.4%</td>
</tr>
</tbody>
</table>
“Please include a 120 character summary of your manuscript which will be used on Twitter if eventually accepted for publication. The target for this Tweet should be aimed at clinicians and scientists. Please make it brief, informative and appealing. The Editors reserve the right to alter these Tweets as needed.”

• Potential violations of the ABPI code on DTC advertising or off-label promotion!
• Need a procedure in pace to deal with such requests
The effect of social medial release on page views and PDF downloads of the original article

- PLOS ONE articles (n=16) were blogged and released via Facebook, Twitter, LinkedIn

http://www.plosone.org/article/info:doi/10.1371/journal.pone.0068914
Assessing Impact
Journal article
Traditional metrics are outdated in the digital age

- IF – Misused as a measure of the impact of an individual article
  - A small number of manuscripts are cited much more so than the rest\(^1\)
  - E.g. 90% of *Nature’s* 2004 impact was based on <25% of manuscripts

- Shift in emphasis from JOURNAL impact to ARTICLE impact

- Citations are a measure of ARTICLE impact, but:
  - Are slow to emerge
  - May not be a good thing; context is important
  - Some target audiences may not generate citations (GPs, nurses)

- Actual measures of access – page visits, abstracts views, PDF downloads

- Indicators of interest – Google search volume

- Social media and search patterns provide alternative measures of impact
  - Article-Level Metrics (ALMs)
  - Altmetrics

Real-time numbers of visits and downloads

Total Article Views: 3,240

HTML Page Views: PLOS 2,240, PMC 225
PDF Downloads: PLOS 693, PMC 118
XML Downloads: PLOS 64

Totals: 2,465, 711, 64

28.84% of article views led to PDF downloads
Altmetrics provide some insights into the impact of an article

Other systems:

https://www.altmetric.com/about-altmetrics/what-are-altmetrics/
https://www.altmetric.com/about-our-data/the-donut-and-score/
As consumption of publications and scientific communications becomes ever more digital in nature, in parallel with consumption of news and other information, the distribution, awareness building and impact assessment of those publications needs to keep pace and adapt accordingly.
THANK YOU

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