

Flight Tracker Consortium Meeting

September 2, 2020

Publications and Bibliometrics

Scott J. Pearson



Meeting Agenda



Publications and Bibliometrics

What's New & What's Next

Next Month's Agenda

Office Hours with Rebecca and Scott

Issues around Publications

- Name matching – ORCID
- How to measure success: Quantity vs. quality
- A variety of “bibliometrics”
- Different fields have different practices
- Reporting to government and agencies: Put scholars in best light while providing metrics that these groups want



ORCID

Publications Sweep



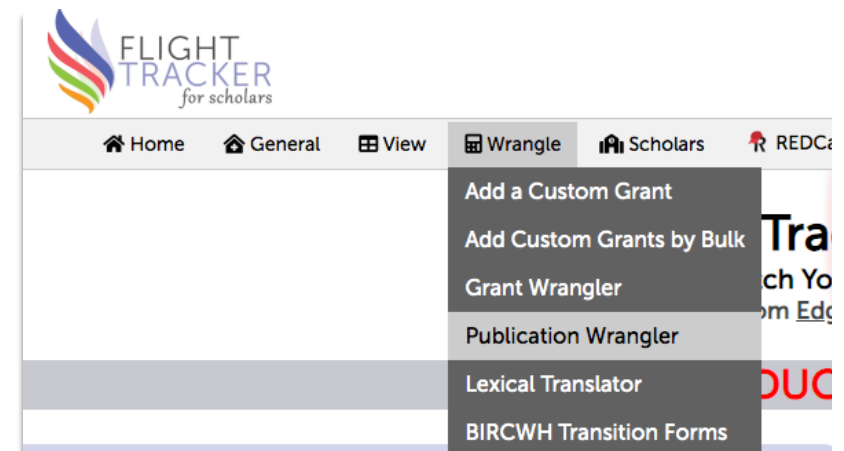
- Part of the core part of Flight Tracker
- Weekly (Saturdays)
- Goal: Free download from non-proprietary source
- Priorities
 1. If ORCID available, searches PubMed by ORCID identifier; automatically pre-wrangles/accepts all this data
 2. Searches PubMed by first/last name and institution; must be wrangled
- For new publications, download initial set of bibliometric data



Cost: Publication Wrangling



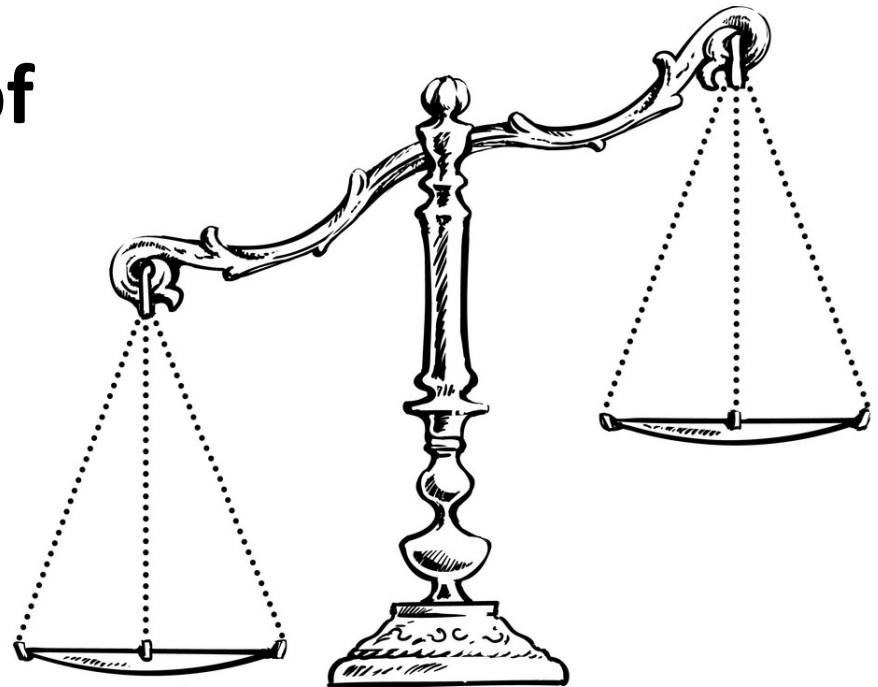
- In order to assure accuracy, publications must be wrangled.
- Those accessed via ORCID are pre-wrangled/accepted.
- The outputs that you see in Flight Tracker are only for wrangled publications. Those that have not been included are thrown out of the calculations!



Payoff

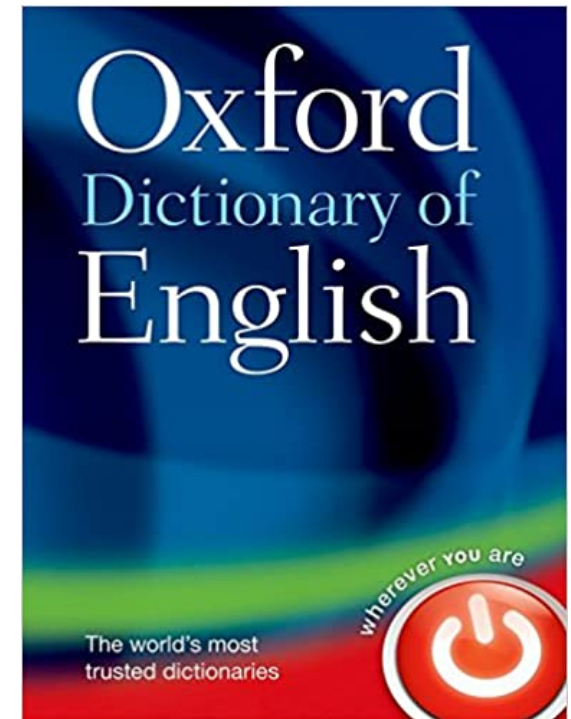


**Easy measurement of
scholarly impact via
bibliometrics**




Bibliometrics Defined

- The branch of library science concerned with the application of mathematical and statistical analysis to bibliography; the statistical analysis of books, articles, or other publications. (*Oxford English Dictionary*)
- A way of bragging about the impact of your scholars' work.



Bibliometrics Supported



- Original: iCite 
- New:
 - Scopus (with institutional API Key)
 - Web of Science (with institutional userid and password)
 - Altmetric (free for all)

Scopus®

 Clarivate
Web of Science™



Altmetric

Bibliometrics Sweep (New)

- As of Flight Tracker 2.19.0 (out last weekend)
- Refreshed **monthly** (on 18th of every month)
- Downloads new iCite statistics
- If enabled, downloads new **Times Cited** for each citation from Web of Science
- Downloads new **Altmetric** counts

- (If enabled, Scopus **H Index** for each scholar downloaded nightly.)
- Because there are rate-limiters on the servers, this can take a while. (Paced download for each citation.)



18th

Main Measures of Impact

- Quantity: Number of papers published
- Quality: Times referenced by others
 - Altmetric Score
 - Relative Citation Ratio (RCR) – iCite (NIH)
 - H Index



Altmetric Score



- New – Altmetric Score (multi-colored wreath)
- Measures impact of an article – based on times cited in publications, blog posts, tweets, Facebook posts, news articles, etc.
- Displays an image of a wreath with the score in the middle
- Wreath is linked to the Altmetric profile for that individual paper
- Colors stand for different metrics



Example Altmetric Profile



<https://www.altmetric.com/details/4662654>

Relative Citation Ratio



- A measure of Times Cited that is normalized by a “field citation rate”
- Field citation rate = average number of times a paper in your field has been cited
- An attempt to be accurate across different fields with different practices
- From iCite from NIH (federal government)

H Index for a Scholar



- Definition: Has at least **N** papers cited at least **N** times; **N** is a whole number (1, 2, 3, ...)
- For each scholar, based on times cited for each paper
- For example, for H Index of 10, that scholar has at least 10 papers cited at least 10 times (but **not** at least 11 cited at least 11 times).
- Well-known bias against new scholars; bias towards existing scholars

H Index for a Scholar (cont'd)



- Calculates H Index for each scholar based on **Times Cited** counts from iCite and from Web of Science
- If enabled, H Index downloaded nightly from Scopus directly
- Because based on different data, iCite vs. Scopus vs. Web of Science may differ slightly but not dramatically (for example, 10 vs. 11)

What Does This Look Like?

REDCap Citation form
REDCap Summary form
Scholar Profiles
Publications View
Brag



REDCap Fields – Citation form



Record Id	1
PubMed ID (PMID)	<input type="text" value="31259659"/>
Include?	<input checked="" type="radio"/> Yes <input type="radio"/> No reset
Source	PubMed Search <input type="text"/>
PubMed Central ID (PMCID)	<input type="text" value="PMC6882450"/>
DOI	<input type="text" value="10.1089/jpm.2019.0054"/>
Authors	<input type="text" value="Baddour NA, Robinson-Cohen C, Lipworth L, Bi"/>
Title	<input type="text" value="The Surprise Question and Self-Rated Health A"/>
Publication Types	<input type="text" value="Journal Article"/>
MESH Terms	<input type="text"/>
Journal	<input type="text" value="J Palliat Med"/>
Volume	<input type="text" value="22"/>
Issue	<input type="text" value="12"/>
Year	<input type="text" value="2019"/>
Month	<input type="text" value="Dec"/>
Day	<input type="text"/>
Pages	<input type="text" value="1522-1529"/>

REDCap Fields – Citation form



Web of Science terms	
Times Cited	<input type="text" value="1"/>
Web of Science Last Update	<input type="text" value="2020-08-27"/> <input type="button" value="Today"/> Y-M-D
iCite terms	
Is Research? (from iCite)	<input checked="" type="radio"/> Yes <input type="radio"/> No reset
Override iCite's designation	<input type="radio"/> Original Research <input type="radio"/> Not Original Research reset
Number of Citations by Other Papers (from iCite)	<input type="text" value="0"/>
Number of Citations per Year (from iCite)	<input type="text" value="0"/>
Expected Number of Citations per Year (from iCite)	<input type="text"/>
Field Citation Rate (from iCite)	<input type="text"/>
NIH Percentile (from iCite; cf. stats reference)	<input type="text"/>
Relative Citation Ratio (RCR; from iCite; normalized to field with mean of 1)	<input type="text"/>
iCite Last Update	<input type="text" value="2020-08-28"/> <input type="button" value="Today"/> Y-M-D

REDCap Fields – Citation form



Altmetric terms	
Altmetric Score	<input type="text" value="0.5"/>
Image URL	<input "="" type="text" value="https://badges.altmetric.com/?size=64&score="/>
Details URL	<input type="text" value="http://www.altmetric.com/details.php?citation_"/>
ID	<input type="text" value="63384570"/>
FaceBook Walls Count	<input type="text"/>
Feeds Count	<input type="text"/>
Google+ Count	<input type="text"/>
Posts Count	<input type="text" value="1"/>
Tweeters Count	<input type="text" value="1"/>
Accounts Count	<input type="text" value="1"/>
Altmetric Last Update	<input type="text" value="2020-08-28"/> <input type="button" value="31"/> <input type="button" value="Today"/> Y-M-D

REDCap Fields – Summary form



H Index calculated from Web of Science	<input type="text" value="11"/>
H Index calculated from iCite	<input type="text" value="10"/>
H Index from Scopus	<input type="text"/>

Scholar Profiles



Primary Department: Pathology [104500]	
Degrees: MD + PhD	
Institution: Vanderbilt University Medical Center	
Converted?: NOT CONVERTED	
Number of First-Author Articles: 2	Number of Last-Author Articles: 3
Confirmed Original Research Articles: 29	
Grants: 2	Citations by Others: 602
Total Dollars All Grants (Internal and External; recorded in COEUS): \$838,243	Total Dollars from Grants (External Sources Only): \$497,436
Mentors: Hal Moses Harold Moses	Resources Used: Pilot Funding
H Index calculated from Web of Science: 15	Range of Altmetric Scores: 0-21
Average Relative Citation Ratio from iCite Scores: 0.815	iCite H Index, calculated from iCite (NIH): 14

Publications View



A screenshot of the FLIGHT TRACKER for scholars web application. At the top left is the logo. Below it is a navigation bar with icons and labels for "Home", "General", "View", "Wrangle", and "Sch". The "View" menu is open, showing a list of options: "Demographics Table", "Stylized CDA Table", "Publication List" (highlighted), "Compare Data Sources", "REDCap Reports", "Missingness Report", "Search Within a Timespan", "List of Scholar Names", "R01-Equivalent Conversions", and "Brag: Publications Widget". On the left side of the page, there is a section titled "Summary of Data" with the date "2020-08-28" and a partially visible title "LAPBITE COELIS Bull".

Publications View



VANDERBILT UNIVERSITY
MEDICAL CENTER

- Home
- General
- View
- Wrangle
- Scholars
- REDCap
- Dashboards
- Cohorts / Filters
- Mentors
- Resources
- Help

View Publications

Customize

Turn on Altmetrics

Sourced from the Web, altmetrics can tell you a lot about how often journal articles and other scholarly outputs like datasets are discussed and used around the world.

Show Pubs During Training

Additional Days:

View a Scholar's Publications

[View All Scholars' Publications](#)

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Publications View



Audet CM, Clemens EM, Ngobeni S, Mkansi M, Sack DE, Wagner RG. Throwing the bones to diagnose HIV: Views of rural South African traditional healers on undertaking HIV counselling and testing. *AIDS Care*. 2020 Aug 17; :1-5 [PubMed PMID: 32799661](#) [REDCap](#)

5 Audet CM, Gobbo E, Sack DE, Clemens EM, Ngobeni S, Mkansi M, Aliyu MH, Wagner RG. Traditional healers use of personal protective equipment: a qualitative study in rural South Africa. *BMC Health Serv Res*. 2020 Jul 15; 20(1):655 [PubMed PMID: 32669101](#) [REDCap](#) [PMC7362457](#).

4 Morris M, Okoth V, Prigmore HL, Ressler DJ, Mbeya J, Rogers A, Moon TD, Audet CM. The Prevalence of Interpersonal Violence (IPV) Against Women and its Associated Variables: >An Exploratory Study in the Rongo Sub-County of Migori County, Kenya. *J Interpers Violence*. 2020 Jul 04; :886260520935484 [PubMed PMID: 32627662](#) [REDCap](#)

Calder CL, O'Hara H, Tabatabai M, Maxwell CJ, Marryshow S, Ahonkhai AA, Audet CM, Wester CW, Aliyu MH. Adherence to Combination Antiretroviral Therapy among Pregnant Women Enrolled in a HIV Prevention Program in Rural North-central Nigeria. *Int J MCH AIDS*. 2020; 9(1):81-92 [PubMed PMID: 32123632](#) [REDCap](#) [PMC7031888](#).

19 Aliyu MH, Sam-Agudu NA, Shenoi S, Goga AE, Ramraj T, Vermund SH, Audet CM. Increasing male engagement in the prevention of vertical transmission of HIV: what works in sub-Saharan Africa?. *BMJ*. 2019 Jun 06; 365:l1965 [PubMed PMID: 31171558](#) [REDCap](#) [PMC6598674](#).

4 Spalluto LB, Thomas D, Beard KR, Campbell T, Audet CM, McBride Murry V, Shrubsole MJ, Barajas CP, Joosten YA, Dittus RS, Wilkins CH. A Community-Academic Partnership to Reduce Health Care Disparities in Diagnostic Imaging. *J Am Coll Radiol*. 2019 Apr; 16(4 Pt B):649-656 [PubMed PMID: 30947902](#) [REDCap](#) [PMC6452889](#).

3 Oppong SA, Asare EV, Olayemi E, Boafor T, Dei-Adomakoh Y, Swarry-Deen A, Mensah E, Osei-Bonsu Y, Crabbe S, Musah L, Hayfron-Benjamin C, Covert B, Kassim AA, James A, Rodeghier M, Audet C, DeBaun MR. Multidisciplinary care results in similar maternal and perinatal mortality rates for women with and without SCD in a low-resource setting. *Am. J. Hematol*. 2019 Feb; 94(2):223-230 [PubMed PMID: 30456766](#) [REDCap](#)

Brag Page



A screenshot of the FLIGHT TRACKER for scholars web application. The top navigation bar includes icons for Home, General, View, Wrangle, and Sch. A dropdown menu is open under the 'View' icon, listing several options: Demographics Table, Stylized CDA Table, Publication List, Compare Data Sources, REDCap Reports, Missingness Report, Search Within a Timespan, List of Scholar Names, R01-Equivalent Conversions, and Brag: Publications Widget. The background shows a 'Summary of Data' section dated 2020-08-28 and a 'StarBRITE COEUS Pull' section.

Brag Page



Brag on Your Scholars' Publications!

[Turn on Altmetrics](#)

Sourced from the Web, altmetrics can tell you a lot about how often journal articles and other scholarly outputs like datasets are discussed and used around the world.

Include this Page as a Widget in Another Page

Copy the following HTML and place into another HTML webpage to display your scholars' publications. Your website must likely have cross-origin framing turned on (which is the default).

```
<iframe src="https://redcap.vanderbilt.edu/plugins/career_dev/brag.php?showHeaders&pid=66635" title="Recent Publications" style="width: 400px; height: 400px;"></iframe>
```

What Time Period Should Show?

Days Prior:

Brag Page



Include this Page as a Widget in Another Page

Copy the following HTML and place into another HTML webpage to display your scholars' publications. Your website must likely have cross-origin framing turned on (which is the default).

```
<iframe src="https://redcap.vanderbilt.edu/plugins/career_dev/brag.php?showHeaders&pid=66635&altmetrics" title="Recent Publications" style="width: 400px; height: 400px;"></iframe>
```

What Time Period Should Show?

Days Prior:

All Citations in Previous 180 Days

Cronin RM, Yang M, Hankins JS, Byrd J, Pernel BM, Kassim A, Adams-Graves P, Thompson AA, Kalinyak K, DeBaun M, Treadwell M. Association between hospital admissions and healthcare provider communication for individuals with sickle cell disease. *Hematology*. 2020 Dec; 25(1):229-240

5 Novak LL, Baum HBA, Gray MH, Unertl KM, Tippey KG, Simpson CL, Uskavitch JR, Anders SH. Everyday objects and spaces: How they afford resilience in diabetes routines. *Appl Ergon*. 2020 Oct; 88:103185

26 Chiusa M, Hu W, Zienkiewicz J, Chen X, Zhang MZ, Harris RC, Vanacore RM, Bentz JA, Remuzzi G, Benigni A, Fogo AB, Luo W, Mili S, Wilson MH, Zent R, Hawiger J, Pozzi A. EGF receptor-mediated FUS phosphorylation promotes its nuclear translocation and fibrotic signaling. *J. Cell Biol*. 2020 Sep 07; 219(9)

4 Feola B, Armstrong K, Flook EA, Woodward ND, Heckers S, Blackford JU. Evidence for inhibited temperament as a transdiagnostic factor across mood and psychotic disorders. *J Affect Disord*. 2020 Sep 01; 274:995-1003

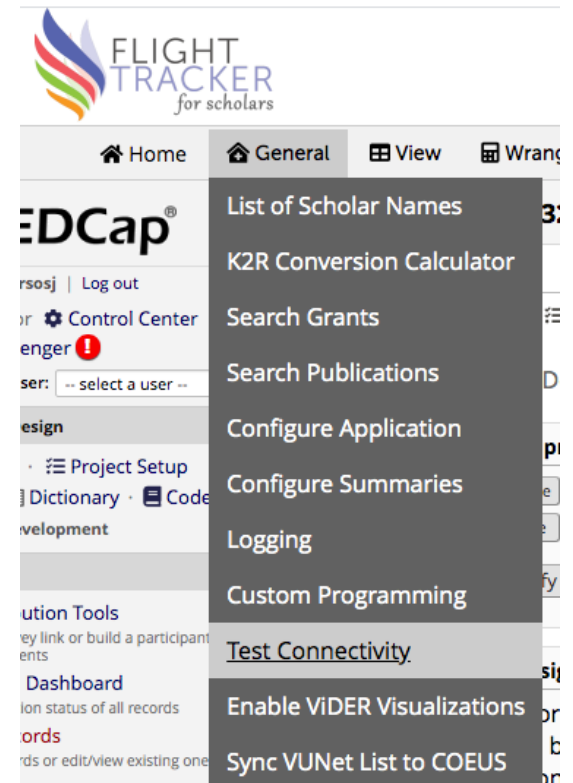
Example of Bragging



<https://www.vumc.org/epi-phd/epidemiology-phd-program>
(No Altmetric Data)

Enabling Bibliometrics: Allow List

- Some of your REDCap servers have an **Allow List** that allows only certain servers to contact your REDCap box.
- If this pertains to you, please add the following websites to your Allow List (as pertinent to your licensing abilities):
 - api.altmetric.com (Altmetric; free)
 - api.elsevier.com (Scopus; for cost)
 - ws.isiknowledge.com (Web of Science; for cost)
- Can check via Flight Tracker's Connectivity Tester



Enabling Bibliometrics

- Upgrade to 2.19.0
- Vanderbilt: Web of Science automatically enabled
- Altmetric and iCite automatically enabled



Enabling Bibliometrics



- Scopus
 - Ask for API key on Application; put in Application Configuration
 - Not aware of Flight Tracker
- Web of Science (outside Vanderbilt)
 - Talk to your institution's Clarivate representative; ask for user id and password for "Article Match Retrieval (AMR)"; put in Application Configuration
 - You should **not** have to purchase inCites (their premium service) to access these data!
 - Clarivate is aware of Flight Tracker
- ***Libraries and librarians are helpful in getting this information***

Application Configuration



A screenshot of the FLIGHT TRACKER application interface. At the top left is the logo. Below it is a navigation bar with four tabs: "Home" (with a house icon), "General" (with a house icon), "View" (with a grid icon), and "Wra" (with a grid icon). A dropdown menu is open under the "General" tab, listing several options: "List of Scholar Names", "K2R Conversion Calculator", "Search Grants", "Search Publications", "Configure Application" (highlighted in grey), "Configure Summaries", "Logging", "Custom Programming", "Test Connectivity", "Enable ViDER Visualizations", and "Sync VUNet List to COEUS". On the left side of the screenshot, there is a partial view of a news feed with two items: "H EXPORTER I" dated "4 Days Ago" and "R PubMed Fete".

Application Configuration



Bibliometrics

Web of Science (for H Index) User ID

Web of Science (for H Index) Password

Scopus API Key (for H Index)

Save Settings

Consortium Needs



Because Vanderbilt is not contractually engaged with Scopus, I have no concrete way to debug the Scopus download code. If anyone can get an API key, I would be interested in hearing how your experience goes.
Please email me.

What's New & What's Next



- What's New?
 - Continued work on NIH Tables 5 & 8 for Vanderbilt CTSA Renewal
 - Bibliometrics (of course)
 - Custom Mentoring Agreements data are hooked up
- What's Next?
 - Custom Mentoring Agreements about to be beta-tested at Vanderbilt
 - Visualizations for Flight Tracker Data

Next Month's Agenda



Custom Mentoring Agreements

Office Hours with Rebecca & Scott

