

CHANGING THE CULTURE OF  
P&T THROUGH  
CONVERSATIONS ABOUT  
RESEARCH METRICS

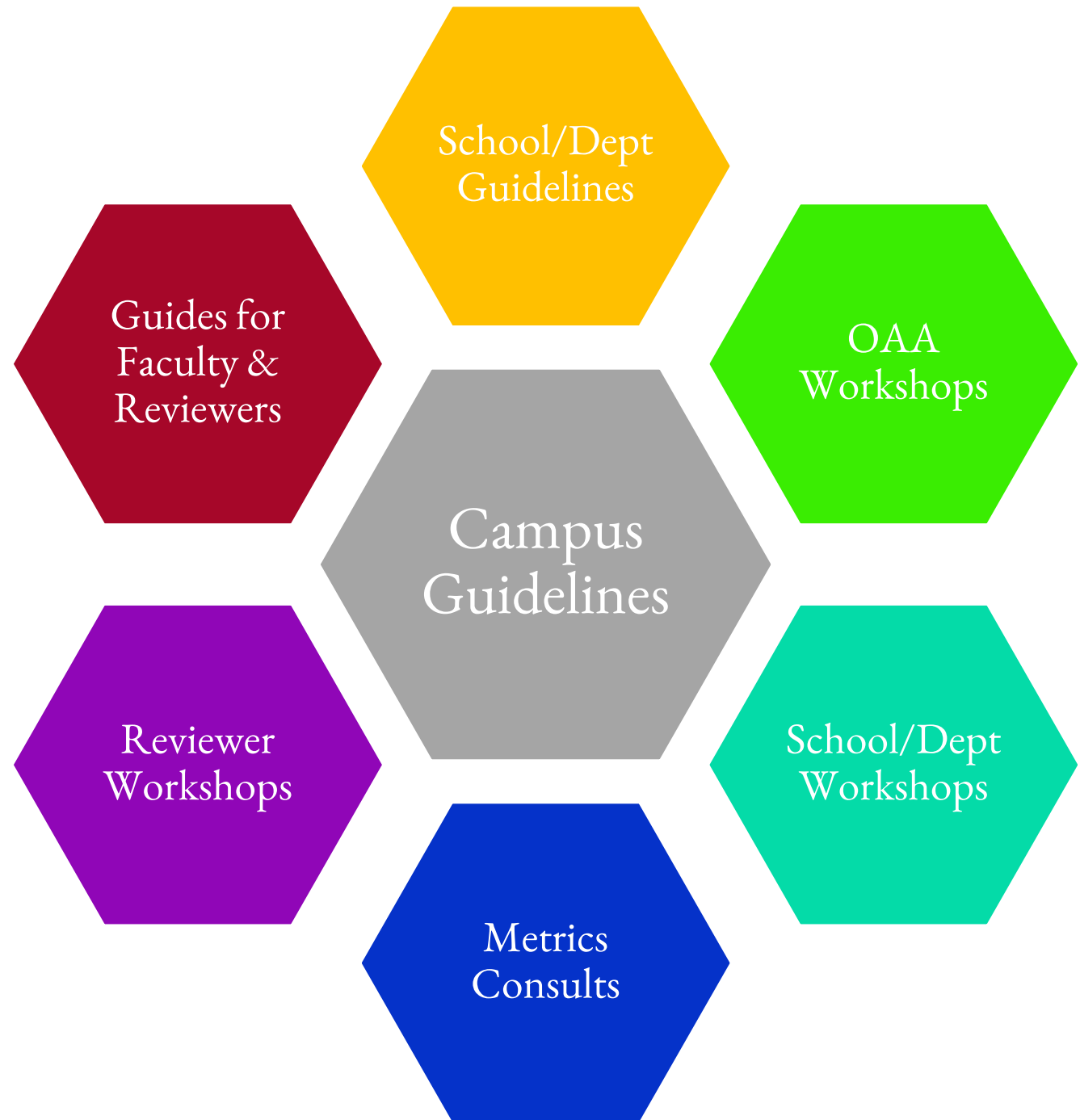
February 26, 2019

Heather Coates

IUPUI University Library Center for Digital Scholarship

# CHANGING CULTURE

- OAA Workshops
- Metrics Consults
- Reviewer Workshops



# CAMPUS GUIDELINES

- Campus values such as Open Access, Civic Engagement, and Diversity, Equity, and Inclusion are included in the campus guidelines for P&T
  - These values are not reflected in the procedures and standards, especially at the school and departmental levels
- Despite being known for [community engagement](#) (Carnegie Foundation Community Engagement Classification), research evaluation is built on the scientific model of research with journal articles as the primary scholarly product
  - Quality
  - Prestige
  - Peer-review

# GOALS

- Expand the range of products that are considered as valid and valued
- Expand the range of data/metrics/anecdotes considered as evidence
- Broaden the campus conversation to include different measures for different types of impact – scholarly, community, professional, economic
- Reduce the inappropriate use of metrics, such as the Journal Impact Factor, in the evaluation of individual scholars
- Reduce the use of statements that equate quality with publication in a journal with a certain JIF
- Increase the use of article/product level metrics

# OAA WORKSHOPS

# OFFICE OF ACADEMIC AFFAIRS

- Evolving, organic relationship as leadership has changed
- Workshops have changed over time – content, structure, sponsor
- Seize opportunities to engage
- Meet administrators and faculty where they are – incremental change

# LIBRARY WORKSHOP SERIES



# CONSULTATIONS



# METRICS CONSULTATIONS

- Use a reference interview approach
- Understand their departmental, school, and disciplinary context regarding implicit and explicit standards, expectations
- Get to know their story as a scholar
- Story comes first; data are evidence to support

# METRICS CONSULTATIONS

Depending on where they are in the pipeline, consultations may result in

- CV analysis – what can be shared openly via IUPUI ScholarWorks
- Gather publication metrics for existing products
- Basic data visualization to support narrative claims – citation map, co-authorship, cited references, interdisciplinary citations
- Support for interpretation and reporting in their dossier

# GATHER EVIDENCE

## Metrics & Other Evidence

- Citation counts
- Field-weighted Citation Impact
- Relative Citation Ratio (RCR)
- Item views & downloads
- Discussion on social media, blogs, etc.
- Book holdings
- Inclusion in syllabi
- Good stories

## Sources

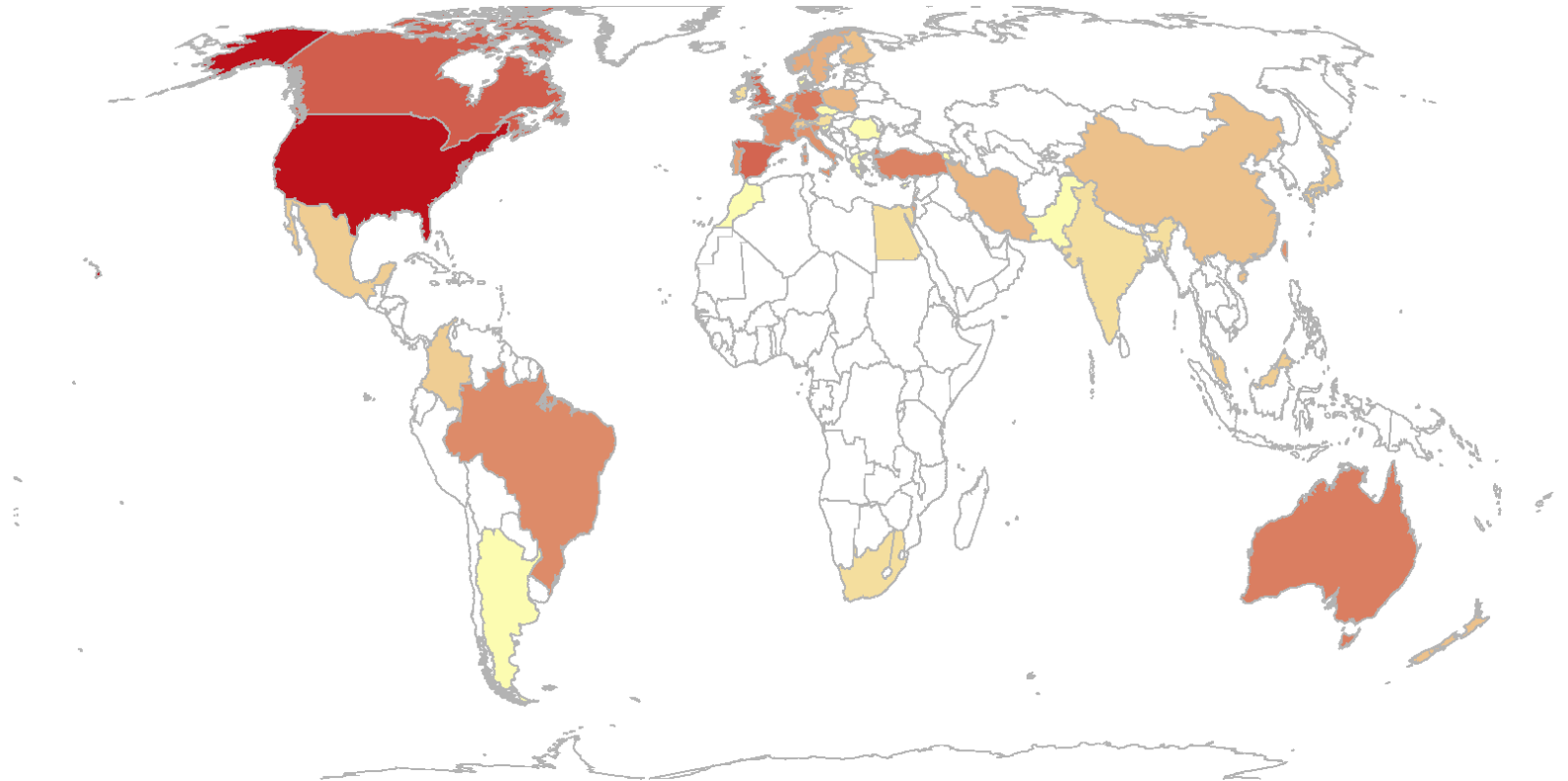
- Google Scholar
- Scopus or Web of Science
- iCite (RCR)
- Publisher
- IUPUI ScholarWorks
- Altmetric
- Dimensions.ai
- Web searching
- Worldcat

## Geospatial Visualization (Choropleth Map)

Silvia Bigatti Citation World Map

Mar 20, 2017 | 11:41:21 AM -04:00

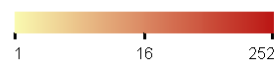
# BASIC DATA VISUALIZATION



### Legend

Country Color (Logarithmic)

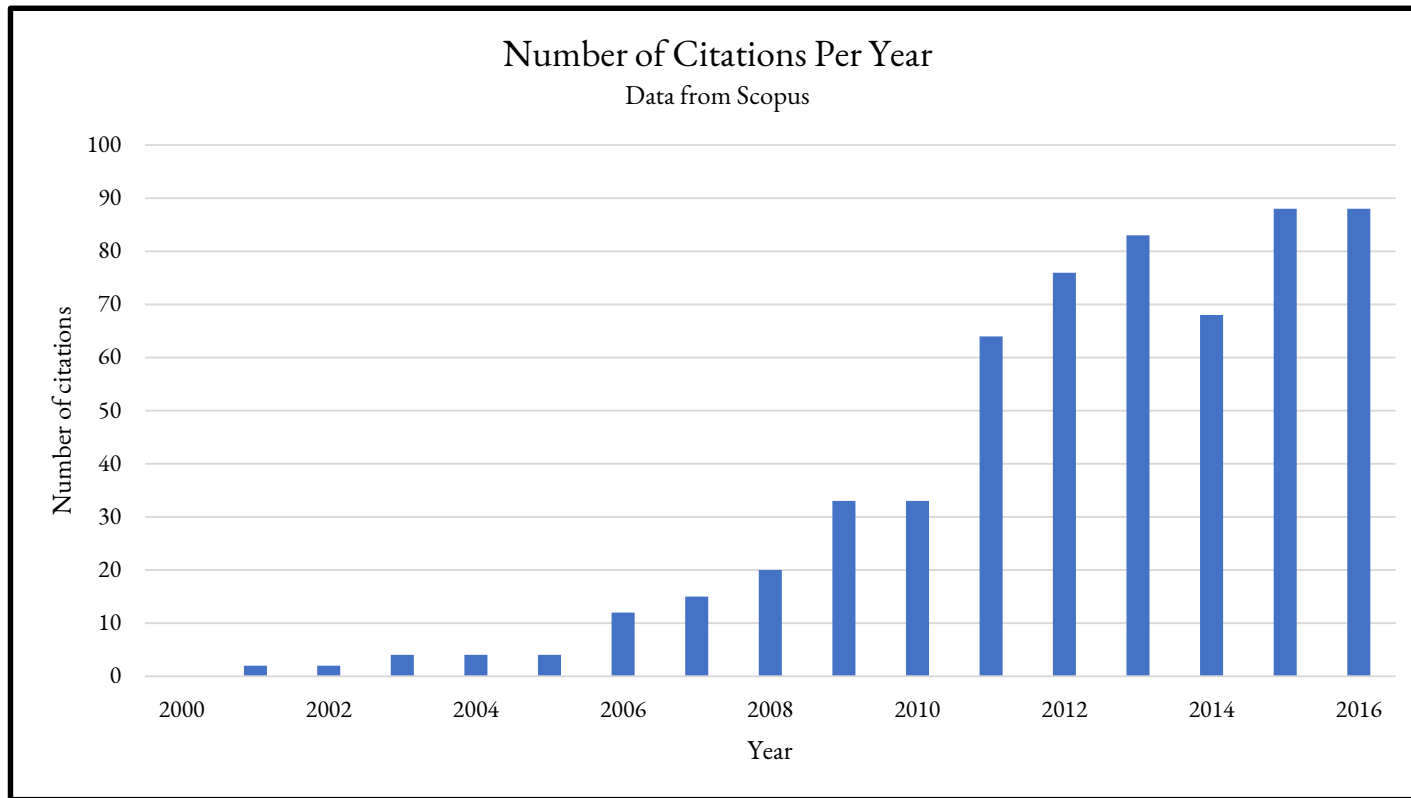
Citations



### How to Read this Map

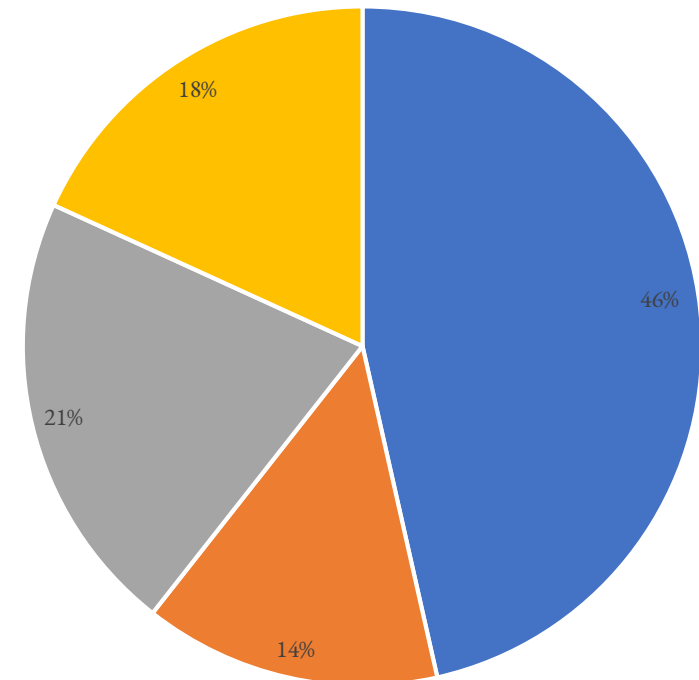
This *choropleth map* shows 209 countries of the world using the equal-area Eckert IV projection. Each country may be color coded in proportion to a numerical value. Minimum and maximum data values are given in the legend.

# BASIC DATA VISUALIZATION



Percentage of citations by subject areas

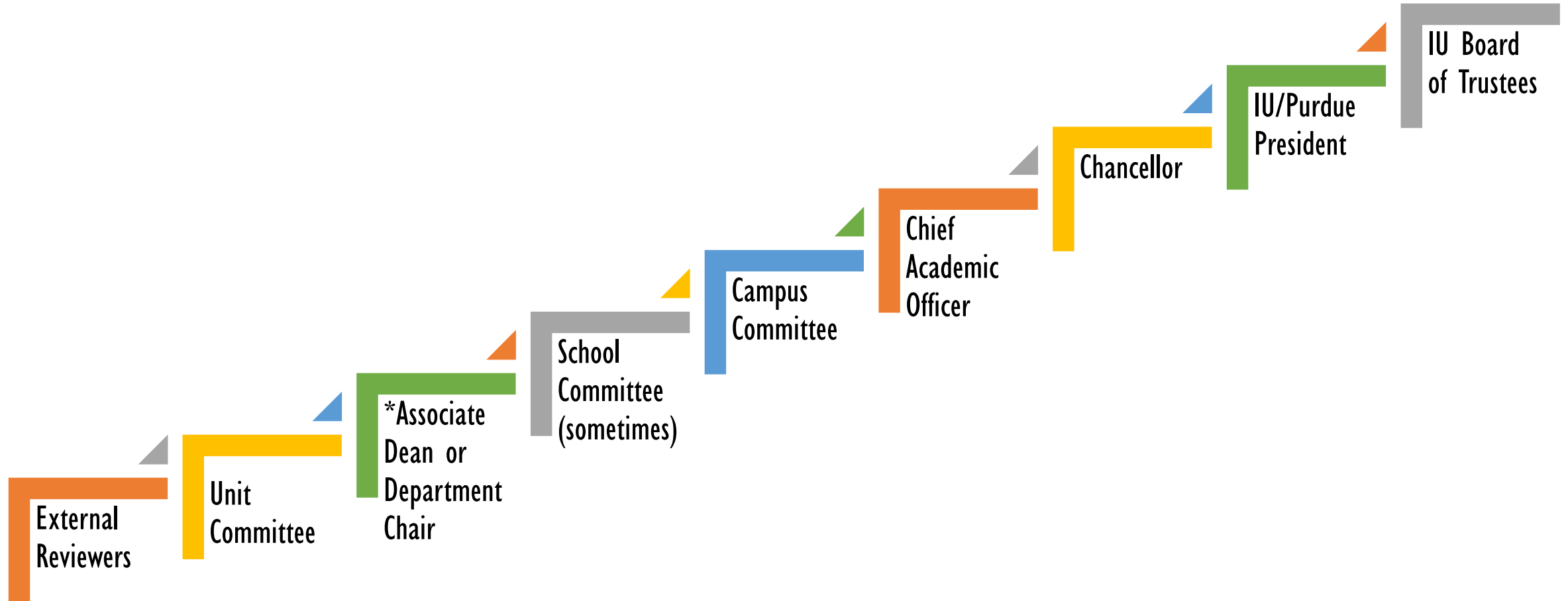
■ Oncology ■ Psychology ■ Anesthesiology and Pain Medicine ■ Rheumatology



# REVIEWER WORKSHOPS

*Assessment of dissemination outlets*

# EVALUATION FOR P&T @ IUPUI



# EVALUATING DISSEMINATION OUTLETS

Assess the dissemination outlets in the candidate's area of excellence.

- Stature of journals, presses, editions, galleries, presentations, and other means...
- Authorship convention

With a few special cases noted



# MISCONCEPTIONS & CHALLENGES

**In recent years, electronic journals have emerged in some fields that may contain material that is comparable in quality and stature to print media.** If there is any question about the quality of electronic publications, the chair should address this issue explicitly. In circumstances where publication occurs outside the usual disciplinary journals or presses, chairs may wish to seek an assessment of the stature of these publications from chairs or deans in other disciplines.

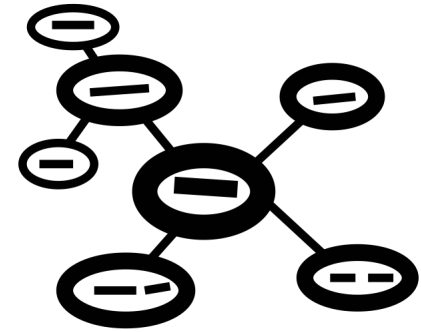
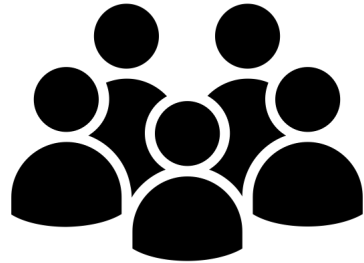
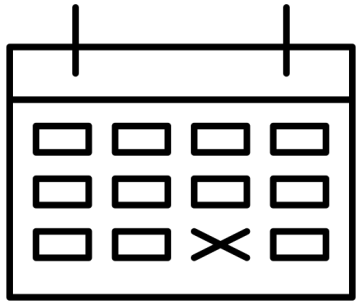
# MISCONCEPTIONS & CHALLENGES

In order to promote and encourage interdisciplinary teaching, research and creative activity, and service, IUPUI encourages dissemination of results in appropriate media of high quality even when these outlets are unusual for the discipline. **Peer review of the material, therefore, is especially important.** Whenever a chair is not the appropriate administrative officer to provide an assessment of the media of dissemination, deans should arrange to include this information.

# SKILLS FOR EVALUATING VENUES

- Research metrics literacy
- Knowledge of current publishing and other norms for a discipline and field (authorship, speed/volume of publication, journal reputation, peer review practices)
- Ability to retrieve relevant information efficiently and effectively
- Know when to ask for support & who to contact

# CONSTRAINTS



# OTHER CHALLENGES

- The candidate may not clearly identify the source of the evidence presented
- Evidence is distributed across a huge number of systems and platforms
- Sources of evidence differ among candidates
- Campus and school standards define Excellence in Research, but do not describe quality criteria or standards for journals, books, presses, exhibit venues, etc.

# LESS THAN IDEAL PRACTICES

- Stating that publication in a certain journal = impact
- Stating that publication in a certain journal = quality
- Re-using journal descriptions (ad copy) from publisher sites
- Presenting the Journal Impact Factor without relevant context
  - Unspecified or incorrect year
  - Using the 2-year JIF when 5-year JIF is more appropriate for the field
  - Quartile Ranking or value range
- Vague descriptions of the journal or press as “reputable”, “prestigious”, or “Tier 1” without evidence or evaluation to substantiate those claims

We value what we can measure

# REFRAMING THE TASK

- Consider evidence about the dissemination outlet and products
- Apply expertise to evaluate the candidate's case
- Put the evidence into institutional and disciplinary context
- Provide useful information to external and campus reviewers
- Be an effective advocate for the candidate



# THE TRAINING: CONTENT

## Changes in publishing

- No one can keep up with everything being published
- All publishing is digital – format has nothing to do with quality
- Readership matters for disciplines with large communities of professionals
- Reading habits – people expect one-click access
- Open Access is not a brand

# THE TRAINING: CONTENT

## Availability and growth of research metrics

- Researchers and administrators have more access to research metrics than ever
- Publication metrics cannot measure quality or impact
- Dispel common misconceptions about common metrics (e.g., Journal Impact Factor)
- Offer specific improvements and examples to put metrics into the appropriate context

# INTERPRETATION & REPORTING

In 2014, Ms. Wang published an article in the *Journal of Nature*, which has a Journal Impact Factor (Clarivate Analytics) of 3.4 for articles published that year. The *Journal of Nature* ranks in the second quartile, or top 50% of journals in Nature Studies.

Mr. Martinez published in the *Journal of AIDS* 3 times between 2013-2015. With an average JIF of 5.1 for those years, it has the highest JIF of all journals that focus on AIDS. This peer-reviewed journal is the official journal of the International AIDS Society and has a wide readership of researchers, professionals, and policy-makers.

# RESPONSIBLE USE OF METRICS

- Metrics are **indicators** rather than direct measures of productivity, impact, reputation
- Most publication metrics were not designed for evaluating individual scholars
- Metrics do not measure quality; this is best done by expert peer-review
- Different types of impact require different metrics
- A scholar or their body of work should not be summed up in a single metric

~~We value what we can measure~~

We measure what we value

# The Edge

THE CHRONICLE OF HIGHER EDUCATION

February 26, 2019

You need to start by gathering the entirety of the academic campus — the provost, deans, department chairs, and all of the faculty. Then **take a look, top to bottom, at our tenure-and-promotion process to make sure the values we claim to espouse — the values of public service, the values of education for the public good — are written into those tenure-and-promotion processes at every level.** If we are saying that our public mission is first and foremost, then what we consider excellence in publishing or other forms of research and scholarly production should have that public-service mission written into it. Similarly, if we're looking for excellence in teaching, whatever it is that we consider excellence should have that public mission inscribed in it as well.

-Kathleen Fitzpatrick



# METRICS TOOLKIT

## HELPING YOU NAVIGATE THE RESEARCH METRICS LANDSCAPE

The Metrics Toolkit is a resource for researchers and evaluators that provides guidance for demonstrating and evaluating claims of research impact. With the Toolkit you can quickly understand what a metric means, how it is calculated, and if it's good match for your impact question.

<http://www.metrics-toolkit.org/>



## MEASURING RESEARCH

WHAT EVERYONE NEEDS TO KNOW\*

CASSIDY R. SUGIMOTO  
and VINCENT LARIVIÈRE



**HuMetricsHSS**  
HUMANE METRICS INITIATIVE

*— Rethinking humane indicators of excellence in the humanities and social sciences —*

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<https://ulib.iupui.edu>



# IMAGE ATTRIBUTION

- Noun Project
  - Mindmap Diagram
  - Clock
  - Group
  - Scale
- University Library photograph:  
<http://www.ulib.iupui.edu/about/location>