Academic Analytics Campus Plans
13 November 2019

Peter Hollenbeck, VPFA
Cherise Hall, APFA
• Origins – National Research Council study
• Web searching algorithms => research impact database
• Contents: publications, grants, awards, patents, clinical trials
• Accuracy: highly curated and tested
• Updated nightly (benchmarking db = an annual snapshot)
We are pleased to announce the new release of the Academic Analytics Database, AAD 2018. The release number is AAD2018.00.01324.

We continue to enhance the Portal, creating more points of access and greater flexibility to display the data. Some of the highlights:

- Our database went from 37,000 journals to 50,000 journals
- Thanks to user feedback our honorific awards database grew from 7,500 honors to 11,000 honors
- Analysis Showcase collection of special reports
- Video Tutorials

(Academic Analytics User Group: https://portal2.academicanalytics.com/)
“Documentation” contains:

- Database Contents
- About Academic Analytics
- How the Database is Assembled
- System Requirements
- Portal User Guides
- Guidelines for External Use
- Portal Tutorial Videos
**Research Insight** is a search engine that indexes the titles and abstracts of articles, conference proceedings, books, federal grants, United States patents, clinical trials, and book chapters stored in the Academic Analytics data warehouse to provide a targeted result set for searches on keywords and faculty names. Research Insight is a separate tool on the Academic Analytics portal. Coverage is national, not limited to a single institution, department or program, and is not restricted to comparative time windows.

**Data coverage is as follows:**
- Articles: 2004 –present
- Citations: 2004 –present
- Conference Proceedings: 2004–present
- Books: 2003–present
- Grants: 2006 –present
- Awards: varies by award
- Patents: 1990–present
- Clinical Trials: 2000 –present
- Book Chapters: 2003 –present

For those who are not registered users: https://academicanalytics.com/
Academic Analytics analytical tools

Benchmarking Suite
Provides strategic decision support for academic administrators and faculty leaders using Academic Analytics comparative standardized data.

Discovery Suite
Provides discovery and showcase capabilities for faculty members, administrators, and the public using Academic Analytics data, faculty self-entered data, and integrated institution data.
Academic Analytics Benchmarking Suite

- **Strategic Planning** - develop high-level strategy to guide the university towards its research mission goals, and monitor progress towards those goals with contextualized longitudinal data.

- **Faculty Development** - help faculty members at all career stages to navigate obstacles and succeed in their research programs.

- **Annual Program Review** - enhance your program or department review workflow by augmenting the process with objective, third party data to contextualize scholarly activity at the unit level.

- **Award Nomination Strategies** - cultivate a culture of nomination by identifying the characteristics of award winners and build a strategy to nominate researchers for prestigious honors.

- **Develop a Publication Strategy** - compare where your faculty members publish to the discipline as a whole or your chosen peers, including nuanced analysis of citation metrics, to develop a long-term publication strategy for your academic units.

- **Graduate Placement in Academia** - identify where your graduate students become faculty members and gauge their progress as scholars in the context of your chosen peer group.
Curate Faculty Profiles – put faculty members in control of their scholarly profiles to ensure a complete representation of their research and other activities.

Analyze Collaborative Networks – discover new and existing relationships between scholars to build and enhance interdisciplinary teams.

Foster Team Science – build teams based on user-specified themes or topics outside the usual department and program boundaries.

Create a Research Center or Institute – Use objective data to find the right theme – and the right scholars – for your new or existing centers and institutes.

Target Funding Opportunities – find new sources of funding relevant to ongoing scholarship or in line with proposed initiatives.

Subject Matter Expertise Identification – identify researchers by their expertise and talent when initiating new research projects or building teams to tackle pressing issues.

Showcase Faculty Scholarship – Put your institution’s research prowess front and center for potential industrial partners, media outlets, and potential students.
Academic Analytics: Faculty Insight

- AcA database
- Purdue Sponsored Programs Data (grants and opportunities)
- Faculty data entry/amendment

Purdue Faculty Insight database
The Faculty Insight database is NOT a faculty reporting tool (e.g., Digital Measures)

FI contains only research impact measures – not teaching, service, engagement, or other aspects of faculty effort

BUT the AcA database can be used to initially populate individual research measures into our faculty reporting tool, when units are first setting it up

We are currently searching for a new campus-wide faculty reporting tool (at the RFP stage), stay tuned to this
Academic Analytics Campus Roll-out

Assemble Review Group
Start with general principles and develop a PU AcA best practices guide

Convene User Group
Share ideas and experience with the analytics tools throughout 2019-20

Academic Analytics in AY 2019-20
Access limited to colleges

Goals?
• get familiar with key features of AcA, share experience and expertise
• identify an opportunity in faculty development, collaboration, or awards
“Point-person” in each college:

Engineering: Arvind Raman
Ag: Bernie Engel
Libraries: Karen Hum
HHS: Jessica Huber
CLA: Kristen Hunt
Education: Wayne Wright
Management: Andrea Pluckebaum
Pharm: Alan Zillich
PPI: Carrie Berger
Science: Kenda Kostel-Mikel
Vet: Malathi Raghavan
General principles of use:

• We will use the AcA data and analytics as an aid to faculty development, identifying opportunities, unit self-studies and planning
• We will not use AcA data and analytics alone to make any decision
• Faculty will be able to check their own data and add to the FI database

The Review Group will discuss and refine these over time
### Examples of use:

<table>
<thead>
<tr>
<th>Programmatic</th>
<th>How we will not use:</th>
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<tbody>
<tr>
<td>• Prepare unit review self-study docs</td>
<td>Programmatic</td>
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<tr>
<td>• Strategic academic planning</td>
<td>• Will not use AcA data as the sole source of information in unit reviews, but as one of many sources</td>
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<td>• Examine career trajectories and faculty</td>
<td>• Recognize the disciplines in which AcA data are incomplete, and employ with caution there (e.g., the arts)</td>
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<td>appointments of our graduates</td>
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<tr>
<td>• Budget discussions</td>
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<td>• Predict impact of retirements and hiring</td>
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<tr>
<th>Peers</th>
<th>Peers and rankings</th>
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<tr>
<td>• Identify current and aspirational peers</td>
<td>• Will not compare different disciplines within Purdue to each other</td>
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<tr>
<td>• Compare programs and disciplines at Purdue</td>
<td>• Will not generate detailed quantitative rankings vs other institutions</td>
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<td>to their larger fields</td>
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<table>
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<th>Opportunities</th>
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<tr>
<td>• Identify relevant grant opportunities</td>
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<td>• Identify potential collaborations, centers or</td>
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<td>institutes through research themes and existing</td>
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<td>networks</td>
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<th>Faculty development</th>
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<td>• Identify nominees for external awards and honors</td>
<td>• Will not use the data to evaluate individual faculty</td>
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<td>• Identify faculty who may need mentoring or other support</td>
<td>• AcA is not a C.v. replication database</td>
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Review group:

Cheryl Cooky (CLA, Chair of the University Senate)
Natalie Carroll (AG, past Chair of the University Senate)
Michael Fosmire (Libraries)
Chris Hrycyna (Dept Head of Chemistry, SCI)
Nancy Peterson (CLA, Provost Fellow for Awards)
Nichole Ramirez (I-DAtA)
David Reingold (Dean, CLA)

Peter Hollenbeck, ex officio (SCI, VPFA)
How shall we communicate amongst this group?

- A website including a list of Frequently Asked Questions will be available soon, on Provost web site under “Faculty”
- Sharing information about using tools
- Updates to the best-practices rules
- Announcements of changes and upgrades
- Questions about the data should be directed to our IDA+A group at idata@purdue.edu
Reminder: what can we do with AcA?

- Faculty development and awards nomination
- Strategic planning and program review
- Build collaboration, teams, centers & institutes, funding opportunities
- Demonstrate our strengths for development and partnerships
- Graduate placement
- Faculty help curate the FI database
Academic Analytics Campus Roll-out

Faculty concerns and communication:

Note the CLA Senate document, and University Senate Resolution 17-11:

THEREFORE, BE IT RESOLVED THAT:
The University Senate recommends that Purdue University and its faculty units should use extreme caution in partnering with Academic Analytics and similar companies, and should never rely on such data for promotion, tenure, raise, retention offers, allocation of faculty lines or other resources, or hiring decisions. When such data are obtained, faculty members should be given access to the data in order to be able to check their accuracy and completeness, and should be given an opportunity to respond to perceived inaccuracies and incompleteness.
Misconception:
Academic Analytics will be used to evaluate the productivity of individual faculty members or departments

Facts:
We use C.v.’s and annual reports to do this for faculty, and comprehensive internal and external review to do this for departments.
**Misconception:**
The Academic Analytics database has inaccuracies and inconsistencies, and faculty have no way to check or correct them.

**Facts:**
AcA data consist of publicly available research and scholarly data, updated *daily*, with explicitly-described properties and limitations (*e.g.*, all DOI publications; many awards but some not included).

The *Faculty Insights* tool allows Purdue and its faculty to add data that have not been assembled by AcA into a PU-specific database. A key component will be non-federal grants, which SPS will upload.