BIBLIOMETRICS & THE MODERN ACADEMIC LIBRARY: A UNIQUE CROSS-CAMPUS PARTNERSHIP AT THE UNIVERSITY OF WATERLOO

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AGENDA

1. Background
2. Partners
3. Projects
4. Key takeaways
5. Discussion
WATERLOO CONTEXT

- Main campus
- 3 satellite campuses
- 4 affiliated & federated institutions
- 6 faculties
- 10 faculty-based schools
- 42 research centres and institutes

<table>
<thead>
<tr>
<th>FACULTIES</th>
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<tbody>
<tr>
<td>Applied Health Sciences</td>
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<tr>
<td>Arts</td>
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<td>Engineering</td>
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<tr>
<td>Environment</td>
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<tr>
<td>Mathematics</td>
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<td>Science</td>
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“A statistical or mathematical method for counting the number of academic publications, citations and authorship. *It is frequently used to measure academic output.* Data usually comes from an international database e.g. Thomson Reuters Web of Science or Elsevier-Scopus.”

(European Commission on Research and Innovation)
Publish or Perish

Propose

Posters

Present

Postdoc

Produce Ph.D.'s
KEY PROJECTS

- White paper on bibliometrics
- Research metrics framework
- Validate university rankings data
- Competitive applications
STRUCTURE

Advisory Group
- Director, Institutional Analysis & Planning
- University Librarian
- Vice-President, University Research

Working Group & Sub-Committee
- Faculties, Office of Research, Institutional Analysis & Planning, Library

~20 members
SUB-COMMITTEE

• White paper
  » Rationale for measuring
  » Commonly used measures
  » Limitations
  » Appropriate uses
  » Recommended practices
WHITE PAPER PROCESS

Environmental Scan & Literature Review

Outline

Draft
## CONSULTATION

<table>
<thead>
<tr>
<th>Consultation Phase</th>
<th>Timeline</th>
<th>Stakeholders</th>
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| One                | June – August 2015  | • Working Group on Bibliometrics  
|                    |                     | • Advisory Group  
|                    |                     | • Provost  |
| Two                | October – November 2015 | • Deans’ Council  
|                    |                     | • Associate Deans, Research  
|                    |                     | • Faculty Association  
|                    |                     | • Graduate Students Association  
|                    |                     | • FEDS  
|                    |                     | • Library  
|                    |                     | • IAP  
|                    |                     | • Campus at large  |
| Three              | November – December 2015 | • Senate Grad & Research  
|                    |                     | • Executive Council  
|                    |                     | • Senate  |
| Four               | January – February 2016 | • Other interested Universities  |
WHITE PAPER NEXT STEPS

• Finalize and distribute widely
• Online Subject Guide
• Encourage use:
  » Recommended practices for researchers, staff and administrators
  » Standard practices for researchers
LEVEL OF ANALYSIS

- University level
- Discipline level
- X Author level
KEY PARTNERS

Research Institute / Centre
Office of Research
Institutional Analysis & Planning
Library
METHODOLOGY

- **Finalize list of researchers**
- **Search by author name**
- **Identify relevant Waterloo authors for each publication**
- **Research area vets**
  - pub list

- **Finalize master spreadsheet of publications by author**
- **Create master spreadsheet of publications by author**
- **Create master spreadsheet of publications by year**

- **Calculate needed measures**
  - Synthesize data & create report
BIBLIOMETRIC MEASURES

- Number of publications
- Number of citations
- Average number of citations per publication
- Median number of citations per publication
- Number of publications with 1 or more citations
- Number of publications with 100 or more citations
- Number of publications with no citations
KEY MESSAGES

Snapshot
Trends
Consider over time

Discipline level
Avoid comparisons
Context is everything!
VALIDATING RANKINGS RESULTS
Is it possible to validate/replicate this bibliometric-based data for university ranking X?
METHODOLOGY

• What is the data source?
• What is the time span?
• What document types are included?
• Are self-citations included or excluded?
• How are subjects classified?
MACLEAN’S 2016 RESULTS

• New: Citations indicator
  » 5% weight of Faculty area score
  » Scopus; 2010-2014

• Total number of publications (2.5% weight)

• Field-weighted citation impact (2.5% weight)
Rankings & collaboration

- Library
- IAP
- Ranking organization
GOOD PRACTICE

Involve those evaluated in the analysis process

Discourage author-level comparisons

Work from a basket of measures

Understand & account for disciplinary variations
RECOMMENDATIONS

As an author, use your name consistently when publishing

Use an author identifier such as ORCID to connect your works to you

Ensure appropriate affiliation / acknowledgement to UW
Thank you

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