

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

Jana Carson
Manager, Evaluation & Accountability
Institutional Analysis & Planning

Shannon Gordon
Bibliometrics & Research Impact Librarian
Library



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

FACULTIES

Applied Health Sciences



Arts



Engineering



Environment



Mathematics



Science



QUICK FACTS

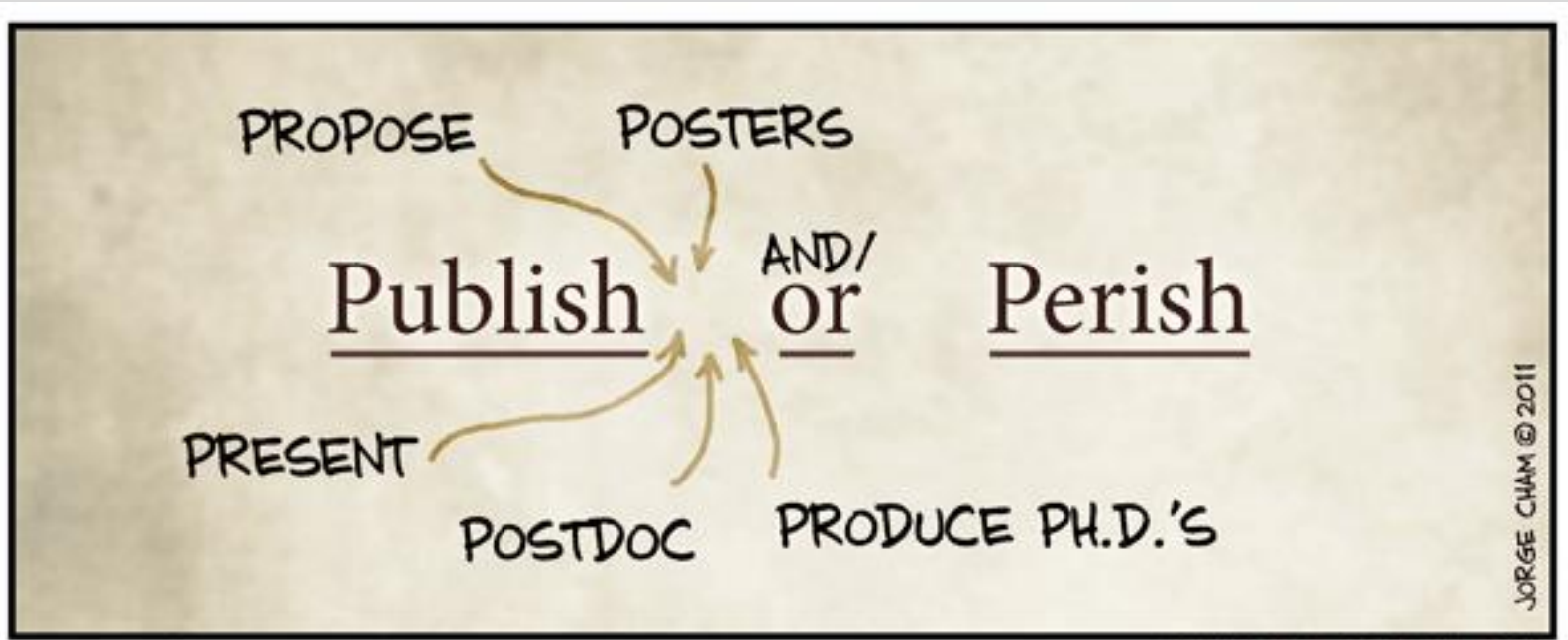


BIBLIOMETRICS

“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](#))





WWW.PHDCOMICS.COM



UNIVERSITY OF
WATERLOO

KEY PARTNERS



KEY PROJECTS

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



WORKING GROUP ON BIBLIOMETRICS



STRUCTURE

Advisory Group

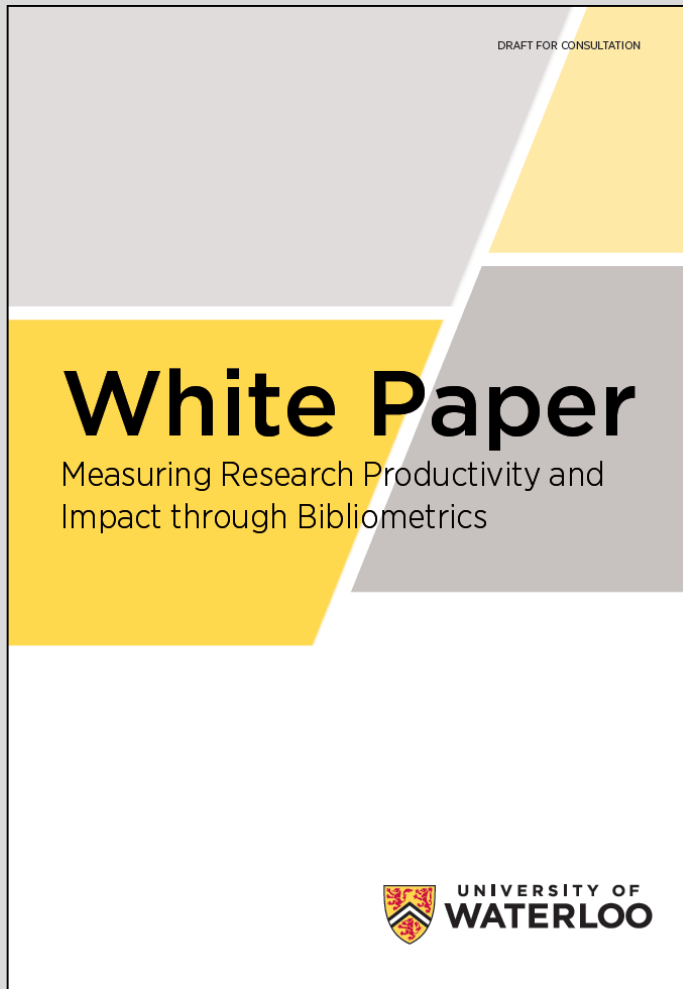
- Director, Institutional Analysis & Planning
- University Librarian
- Vice-President, University Research

Working Group & Sub-Committee

- Faculties, Office of Research, Institutional Analysis & Planning, Library

~20 members





Background

Fall 2015
consultation

Winter 2016

Online guide

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

Consultation Phase	Timeline	Stakeholders
One	June – August 2015	<ul style="list-style-type: none">• Working Group on Bibliometrics• Advisory Group• Provost
Two	October – November 2015	<ul style="list-style-type: none">• Deans' Council• Associate Deans, Research• Faculty Association• Graduate Students Association• FETS• Library• IAP• Campus at large
Three	November – December 2015	<ul style="list-style-type: none">• Senate Grad & Research• Executive Council• Senate
Four	January – February 2016	<ul style="list-style-type: none">• 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



PRACTICAL APPLICATION

WEB OF SCIENCE™ THOMSON REUTERS™

Search Web of Science™ Core Collection My Tools Search History Marked List

Welcome to the new Web of Science! View a brief tutorial.

Basic Search

Example: oil spill* mediterranean

+ Add Another Field

TIMESPAN

All years

From 1900 to 2015

MORE SETTINGS

InCites™ Calibrate Your Strategic Research Vision THOMSON REUTERS™

Dashboard Analytics Profiles

New Title

New Title Save Title

Results: 30,678,221

Dataset InCites Dataset

Filters

By Attributes

Person Name or ID

Affiliated Organization

Location

By Research Network

Scopus Scopus SciVal Register Login Help

Brought to you by University of Waterloo Library

Search Alerts Lists My Scopus

Open Access Indicator for journals indexed in Scopus.

Document search | Author search | Affiliation search | Advanced search

Search for... Eg., "heart attack" AND stress Article Title, Abstract, Keywords

Add search field

Limit to:

Date Range (inclusive) Published All years to Present Document Type ALL

Added to Scopus in the last 7 days

Subject Areas

Life Sciences (> 4,300 titles . . .)

Health Sciences (> 6,800 titles . 100% Medline coverage)

Physical Sciences (> 7,200 titles . . .)

Social Sciences & Humanities (> 5,300 titles . . .)

Learn more about how to Improve Scopus

Stay up-to-date on Scopus. Follow @Scopus on Twitter

Watch tutorials and learn how to make Scopus work for you

Get citation alerts pushed straight to your inbox

Get started with Scopus APIs

About Scopus What is Scopus Content coverage Scopus Blog Scopus API

Language 日本語に切り替える 切换到简体中文 切换到繁體中文

Customer Service Help and Contact Live Chat

About Elsevier Terms and Conditions Privacy Policy

ELSEVIER



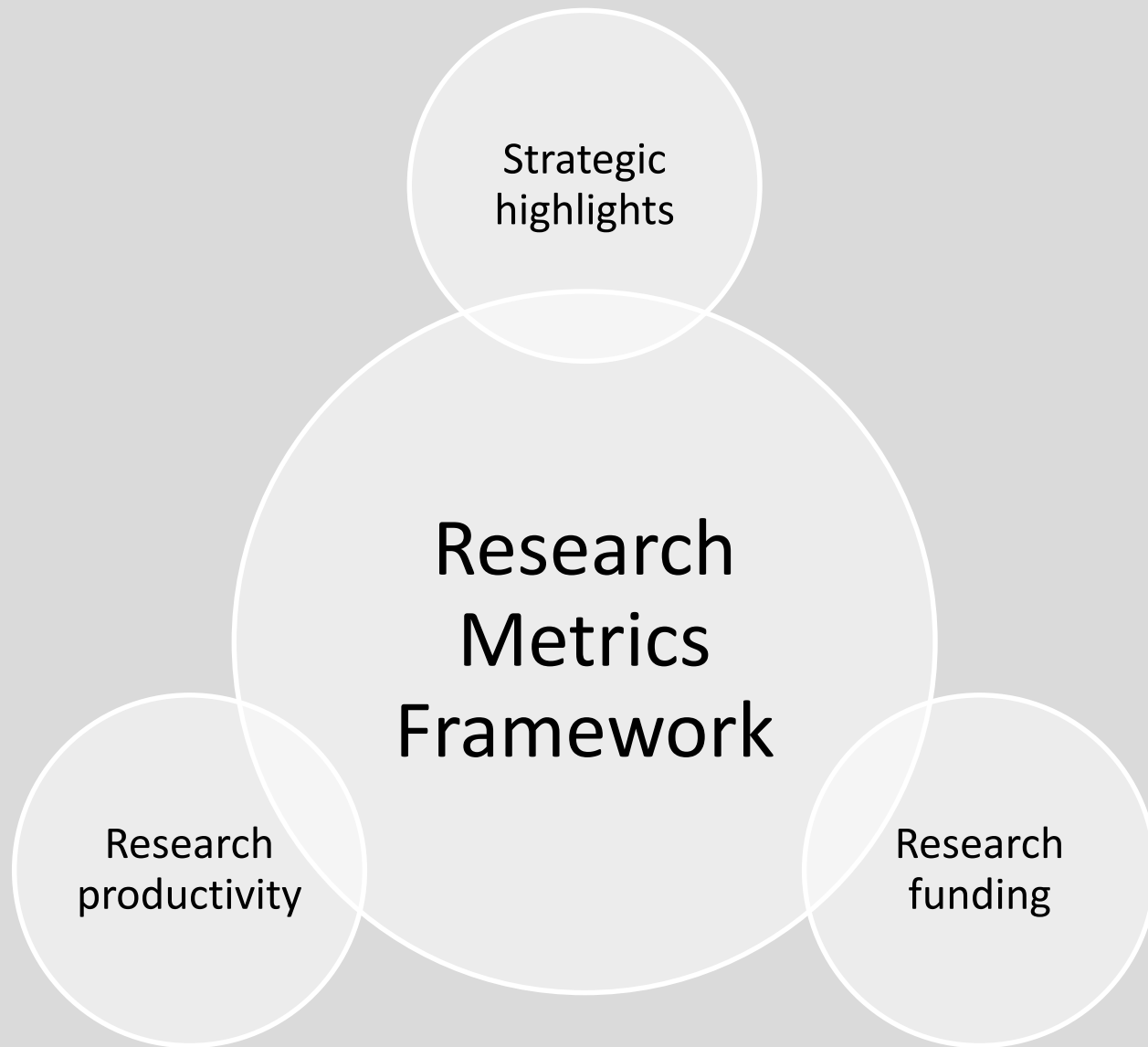
LEVEL OF ANALYSIS

✓ University level

✓ Discipline level

X Author level





KEY PARTNERS

Research Institute / Centre

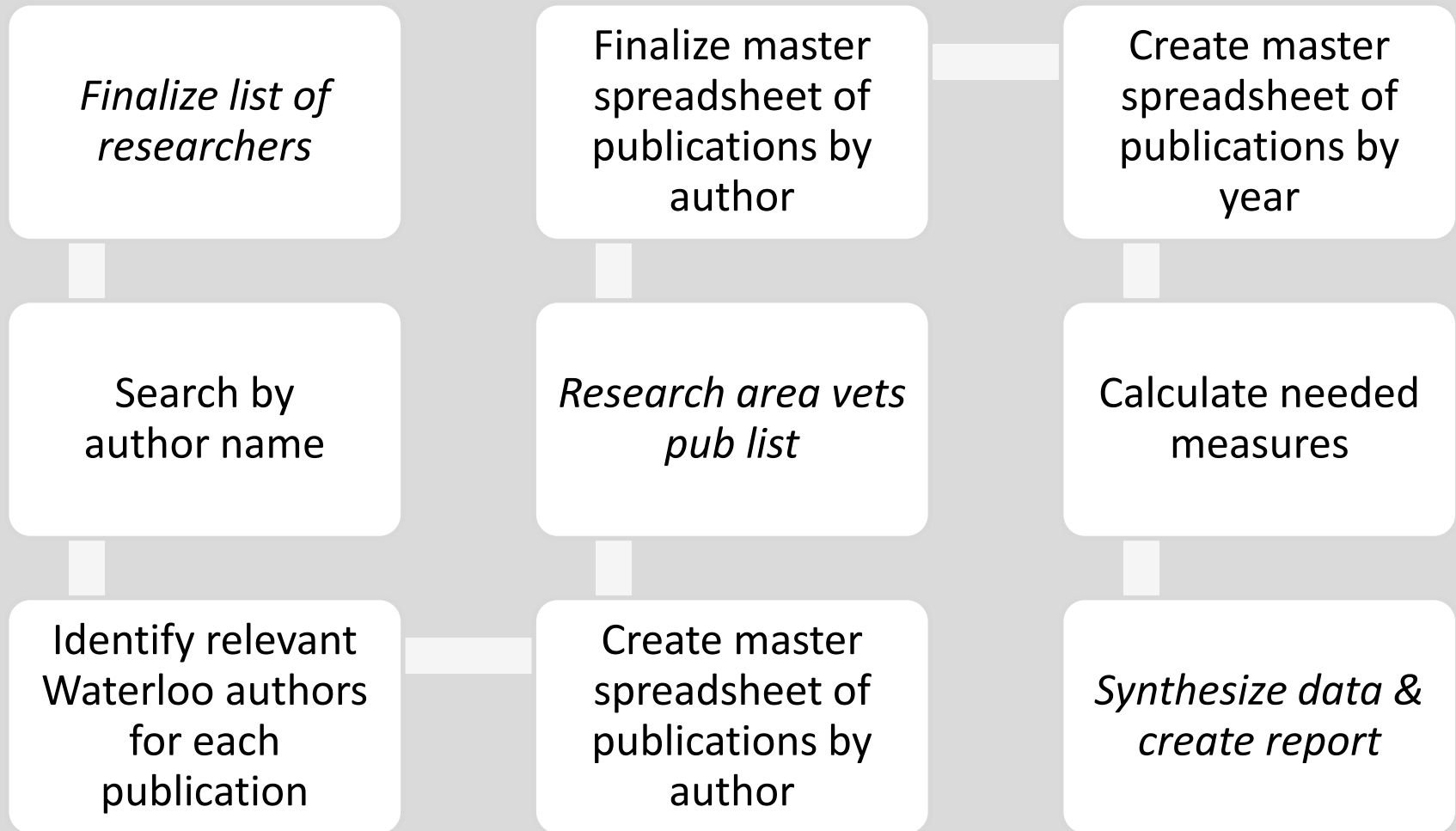
Office of Research

Institutional Analysis & Planning

Library



METHODOLOGY



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)





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

jana.carson@uwaterloo.ca

shannon.gordon@uwaterloo.ca

