

# Metrics Literacies:

## On the State of the Art of Multimedia Scholarly Metrics Education

Isabelle Dorsch, Alyssa Jeffrey, Sanam Ebrahimzadeh, Lauren A. Maggio, and Stefanie Haustein

### What are Metrics Literacies?

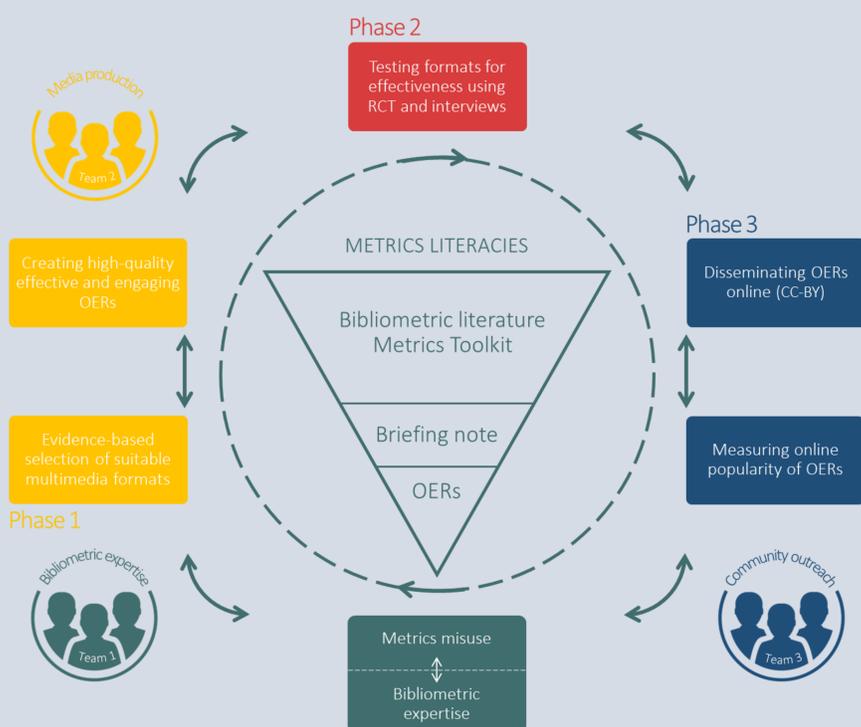
An integrated set of competencies, dispositions, and knowledge that empower individuals to recognize, interpret, critically assess, and effectively and ethically use scholarly metrics in academia.

### The Metrics Literacies Project

Within academia, researchers are under enormous pressure to publish to increase their productivity and impact. Scholarly metrics, such as the h-index, impact factor, and indicators used in university rankings, are widely applied in academic tenure and funding decisions but often inappropriately. The Metrics Literacies project aims to fill this gap by developing, testing, and disseminating multimedia open educational

resources (OERs) to educate researchers and research administrators about scholarly metrics. The first part of the project focuses on the h-index as a popular and widely-used scholarly metric. Our research framework shows the structure of the project and the three consecutive phases with their objectives.

### Research Framework

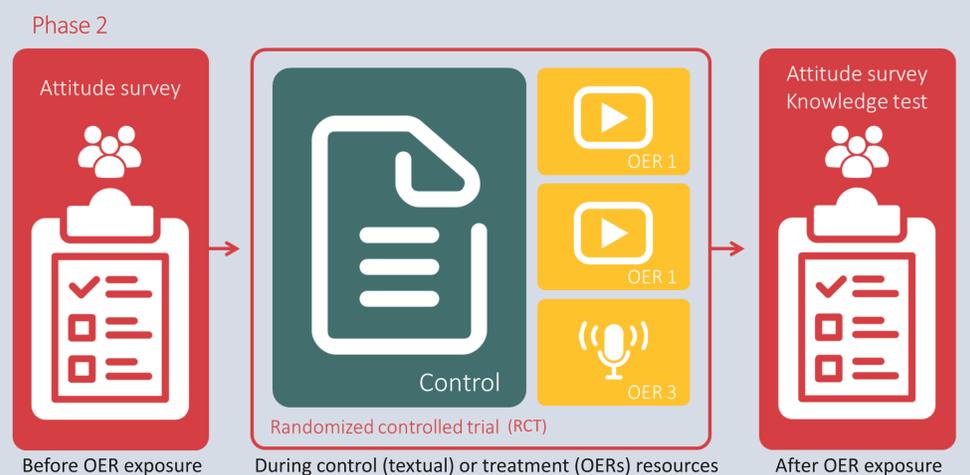


### H-Index Briefing Note

A textual resource and the reference for the OERs including information on:

- Formula and computation
- Lack of clear concept
- Inability to assess early career researchers
- Lack of field normalization
- Differences between databases
- Popularity, uninformed use, and gaming

### Evaluation Process



Selection of a representative sample (n = 280) including librarians, research managers, and academics in compliance with discipline and academic career stage (doctoral student, postdoc, pre-tenure, and tenured professor). Participants will be randomly assigned to one of the four conditions.

### Researcher Personas



**Paulo Barbosa**  
26, Brazil  
Public health  
PhD student



**Ying Wang**  
42, USA  
Physics  
Professor (pre-tenure)



**George Clark**  
56, UK  
English literature  
Professor (tenured)



**Rashida Khumalo**  
48, South Africa  
Management  
Dean



**Maryam Hashemi**  
34, Iran  
Biotechnology  
Postdoc

Hello everyone, my name is Maryam Hashemi and I am a postdoctoral researcher at a university in Tehran in Iran. I have my PhD in biotechnology and am looking for a tenure-track position in a biology department, preferably at a Canadian University. My partner, who I married last year is also an academic.

I know that in my field, the h-index plays an important role in hiring and promotion and so I am debating whether or not I should include it in my CV when I apply for a position. I only have three peer-reviewed publications, one of which is cited 291 times in Google Scholar. It is my first first-authored journal article and I am very proud of it! My other two papers are cited 12 times and once. Since I only have two papers that received at least 2 citations, my h-index is only 2.

Incorporating the use of storytelling elements and human embodiment, we are developing five personas that represent researchers and a research manager. Ensuring ethnic, cultural, and gender diversity, personas come from different disciplines, different career stages, and display various levels of experience and challenges with the h-index.

To make them reliable and relatable we obtain realistic examples of researchers and their publications as well as incorporate feedback from researchers which can relate in any professional way to one of the personas.

### Get in Touch & Follow the Project

Stefanie Haustein | stefanie.haustein@uottawa.ca

Zenodo: <https://zenodo.org/communities/metricsliteracies>  
ScholCommLab: <https://www.scholcommlab.ca/research/metrics-literacies>

