Developing Wikimedia Impact Metrics as a Sociotechnical Solution for Encouraging Funder/ Academic Engagement

Brett Buttliere
University of Warsaw

Matthew Vetter
Indiana University of Pennsylvania

Sage Ross
Wiki Education

Abstract

In this research we propose the development of Wikimedia Impact Metrics as a sociotechnical solution for the encouragement of academic engagement. Academics that engage often face an opportunity cost of not writing papers, which results in e.g., lower professional outcomes. Developing metrics and making them easily available to Altmetric aggregators will be instrumental in encouraging funders to accept and encourage Wikimedia engagement as grant outcomes. This research surveys Wikimedians on what metrics they think are most useful for indicating impact, developing those metrics, seeking feedback, and understanding how to get them into common e.g., altmetric tools.

Introduction

The main problems we seek to solve are the low levels of academic engagement in Wikimedia, and the (lack of) professional recognition that academics and volunteers get for engaging. Scientists want to make their knowledge open, and Wikimedia is where the public looks for information, but few scientists engage with Wikimedia. We hope to incentivize scientific contribution by developing Wikimedia Impact Metrics and encouraging funders to value them. Because working with Wikimedia does not bring traditional professional credit, those who engage too much actually weed themselves out of the academic system. This is a problem both for specific Wikimedians, but also the movement as a whole, hindering engagement.

Our goal is to provide professional credit to those already in the movement as well as encourage others to join (Strategy 2030 1.1: Support Volunteers). We approach this topic from three directions, each corresponding to one co-PI, with each work package (WP) estimated at approximately 2-3 months work. These Work Packages (WPs) include:
WP1: Surveying Wikimedians on what metrics they think will be most useful to display impact.
WP2: Examining existing metrics, developing desired metrics, and presenting them for use.
WP3: Presenting to relevant stakeholders and getting feedback on presentation/ functionality.

These work packages combine quantitative, investigative, and qualitative research to solidify Wikimedia's position as an Open Knowledge platform, positioning Wikipedia as an interface between Science and the Public. This is achieved by engaging scientists through the use of professional incentives i.e., metrics.

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Related work

There are several tools that make statistics available (e.g., xtools), as well as many tools for specific purposes (e.g., the Programs and Events Dashboard, Scholia), but there are no metrics for Wikimedia beyond how often a paper is cited in Wikipedia (Costas et al., 2023). This does not really incentivize contribution, and the idea is to create metrics of Wikimedia contributions and show that this is an important thing.

The specific goal of this research is to identify what metrics really will be useful to create (Buttliere & Buder, 2017), investigate their feasibility, and then start advertising the idea and seeing how people want these made public. This goes beyond questions about, 'what is easy to compute or measure' toward more questions of 'what do we want to measure.' In this sense we interact with and hopefully build the Wikimedia Research Community.

Methods

There are three work packages, each led by one of the PIs. Each is expected to take between 2 and 3 months directed work over the course of the year for 1 PI with the feedback of the others.

WP1 is a survey of academic Wikimedians, both about what metrics they think are important, but also how to get Wikimedia adopted.
WP2 uses the results and problems identified in WP1 and examines the feasibility of these metrics and how they could be presented.
WP3 is more qualitative, in that it will present the idea and functionality to several groups, conferences, and Wikimedia user groups, gathering feedback and support for the idea.

The basis for e.g., survey responses will mostly be our networks but also those we find in our study of academic engagement.

Expected output

Our goals are to:

- Identify what metrics Wikimedians think best demonstrate impact.
- Research the feasibility of these metrics.
- Present the ideas and receive feedback.

In terms of academic output, we expect to present at Wikimania 2024, at the CCCC initiative conference, as well as hopefully the Wikimedia Research Colloquium series. We intend to write 2 papers, one on the survey and one on the developed metrics and feedback.

Risks

Aside from the specific risks associated with e.g., not being able to recruit participants, or getting rejected at journals - the largest risk is that we simply fail to gain the critical mass we need to get it widely adopted.

Community impact plan

The goal is to help Wikimedians get professional credit for the work they are doing. In this sense, we hope that the impact will compound as more academics become involved and work.

The main goal is to help Wikimedia volunteers, so a major portion of our work will be presenting it to them.

Evaluation

We will consider our project a success if we are able to 1) identify a set of metrics that are valued across different academic communities and 2) anticipate how those metrics can be feasibly integrated into a future impact tool. We also expect to have presented the project 2 times and have 2 papers, one about the survey and the other about the metrics and feedback.

Budget

The provisional budget is as follows, with the each estimation including RA work:

- 12,000 to University Warsaw/ Brett~ .5 - 1 day per week. Leading WP1, managing admin for project.
- 12 to Indiana University of Pennsylvania/ Vetter~ .5 - 1 day per week. Leading WP3, interfacing Wikimedia groups.
- 6 to WikiEd / Ross ~ 1-2 days per month. Lead WP2, Metrics development.
- Institutional overhead $7,500
- Conference and travel expenses $4,500 - 1,500 to go to one conference each.

Total, 42,000

Prior contributions

Brett Buttliere has done research on the history of science using Wikimedia, and on how Wikimedia can help make science open, especially engaging scientists to contribute.

Matthew Vetter is a Professor of English at Indiana University of Pennsylvania. He co-chairs the CCCC Wikipedia Initiative. His research is on Wikipedia-based education.

Sage Ross is Chief Technology Officer of Wiki Education and the main developer behind the Programs and Events Dashboard.

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