

How Should Research Evaluation be Conducted? Some Ideas for the Current Debate on Evaluation Reform



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RESEARCH EVALUATION: STATE OF THE ART AND FUTURE SCENARIOS
Universitas Mercatorum, Rome, 9 May 2024

Outline

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I. Introduction

Recent trends in research assessment

Category	Description
Changes	Has changed the way in which the knowledge is produced, the dynamics of science and its interactions with society: <i>postacademic science</i> [24.49, 50]
	There is a crisis of <i>technoscience</i> (scientific research and technological innovation, focused on applications [24.51]) and science identified [24.52] in reproducibility, peer-review, publication metrics, scientific leadership, scientific integrity and the use of science for policy
	Advent of the big data era and its technological developments in research assessment (the <i>computerization of evaluative informetrics</i>) [24.10]
Consequences or effects	Has changed the way in which science is communicated [24.53]
	<i>On the demand side</i> (those that ask for research assessment): changes of the requests and the ways in which the assessment is carried out (has to be done):
	1. Extension to societal value and value for money (<i>evaluation society</i>) [24.54, 55]
	2. Performance-based funding [24.56, 57]
	3. Requests for new and timely indicators in response to changing needs [24.58]
	4. Increase of institutional and internal assessments.
<i>On the supply side</i> (those that offer research assessment): proliferation of rankings (among many others [24.59]), development of Altmetrics [24.60, 61], open-access repositories [24.62, 63], new assessment tools—both commercial (InCites and Sci-Val) and freely available (Google Scholar citation), desktop bibliometrics ([24.64]; Publish or Perish software)	
<i>On scholars</i> : the increase of <i>publish or perish</i> pressure, impact on the incentives, behavior and misconduct, and increasing critics against traditional bibliometric indicators [24.65–73]	
<i>On the assessment process</i> : Increasing <i>complexity of the research assessment</i> linked to the <i>implementation problem</i> [24.2]; multidimensionality of the assessment of the research [24.74]; problems of data quantification, harmonization and standardization for different evaluation and assessment purposes [24.75–77]	
<i>On the measurement of productivity/efficiency within an assessment process</i> : the increasing complexity of the research assessment and the extension of the boundaries of the research activity and the interdependence with the society requires a more precise description and delineation of the <i>boundaries</i> of the production process whose productivity has to be measured before making the estimate, and to consider the <i>dynamics</i> of the inputs, outputs and their connection	

II. «Good» evaluation

How should evaluation be?

- In Daraio and Vaccari (2020) we contributed to the new line of research on philosophical ethics in research evaluation **to integrate models that are based exclusively on quantitative criteria.**
- This new line enables research to be assessed in the light of broad human interests and to take into account **not only the outputs** of research **but also the psychology and motivation of researchers.**
- Our contribution: using MacIntyre we develop a framework that enables us to employ the notion of “**good**” in the evaluation of research practices.
- Specifically, we use the notion of “good evaluation of research practices”, characterizing it as **that evaluation that takes into account the constitutive elements of a “good research practice”.**

The «good» evaluation of research practices: an overview

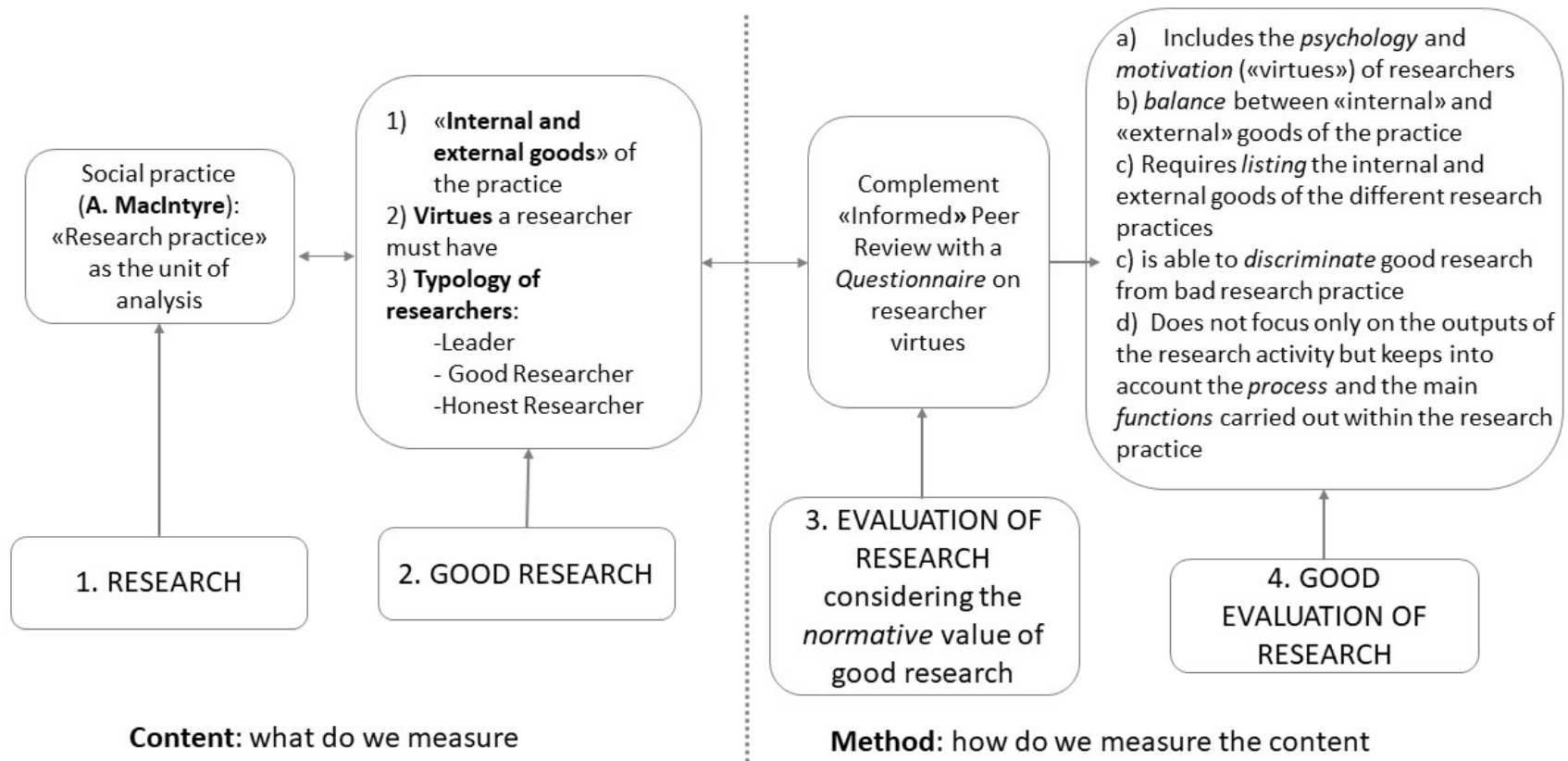


Figure 2. Logical steps of our theoretical contribution. To understand 4 we should come back to 1, focusing on research practice as level of analysis, then go to 2 identify the features of good research, these features yield normative requirements for an appropriate evaluation (evaluation fitness for purposes of the good research), 3 complement informed peer review with a Questionnaire on researcher virtues.

Usefulness of our framework for the «good» evaluation of research practices

Our framework offers

- a *self-assessment tool* for researchers, to understand the functions of their research activities, their motivations and where they are in their research practice.
- helps institutions to collect and *describe the main functions of the research practices* (highlighting their special features) developed by its researchers, and their motivations, to include them in their *strategic plan*.
- may be the starting point for *a paradigm shift* in the evaluation of research practices. *From an evaluation focused on products towards an evaluation focused on the functions of research practices.*

III. Towards a framework for the “appropriate” use of bibliometric indicators in research evaluation

**Joint work with Wolfgang Glanzel and Juan Gorraiz
in progress, submitted to the STI2024 Conference**

IV. Conclusions

Conclusions

Moed, H. F. (2007). The future of research evaluation rests with an **intelligent** combination of **advanced metrics** and **transparent peer review**. *Science and Public Policy*, 34(8), 575-583.

