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Accounting for impact? Researcher theories of bibliometric indicators and the challenge of 'responsible metrics'

Abstract

Once designed to help librarians and researchers track and classify scientific and scholarly communication systems, today bibliometric indicators are big business. A cursory glance around individual academic website profiles reveals they are now commonly used to market research and researchers (Hammarfelt et al 2016). Competition for funding and positions in the labor market are often said to be conditional on 'impact factor' of the journal in which an individual has recently published, or the numbers of citations a scholar has accrued over a body of output (see for instance the popularity and accessibility of individual H-index scores). Given increasing visibility and high stakes, recent works in the sociology of science and higher education studies have begun to address the effects evaluative bibliometrics has come to have on research activities 'on-the-ground'.

Whereas much of the debate in this literature so far has focused on misuses of bibliometrics by amateurs ill-versed in the technical nuances of the measures (De Rijcke & Rushforth 2015), recent empirical studies have found researchers to be highly reflexive about the uses and even limitations of such indicators in their field of research (Aksnes and Rip 2009, Rushforth & De Rijcke 2015). Although explanations researchers provide are seldom systematically checked, they are generalized, meaning it makes sense to analyse their accounts as theories (or 'folk theories') of bibliometric indicators (c.f. Rip 2006). This talk will present findings on indicator folk theories in two academic contexts. The first is based on direct observations and interviews carried out among biomedical research groups in the Netherlands, where one indicator in particular – the Journal Impact Factor – featured very strongly in everyday decision-making. Second, the talk presents findings from a study of peer review evaluation reports of candidates applying for positions of associate and full professor in Swedish universities. Focusing on the fields of biomedicine and economics, this part of the talk will focus on how disciplinary cultures influence the use of metrics in specific fields.

On the basis of these insights, the concluding part of the talk will discuss recent intervention attempts by biomedical research communities (the San Francisco Declaration on Research Assessment) scientometricians (the 'Leiden Manifesto') and science policy researchers (the UK's Metric Tide report) to promote alternative agendas for 'responsible metrics'. In particular I will consider how such efforts may fare in informing or even altering behaviors among research communities in which indicators have become part-and-parcel of the research culture.

Zur Person



Alex Rushforth is a researcher at CWTS, Leiden University. He works in the areas of sociology of science, higher education, and organizational sociology. Whilst training at the Universities of Surrey and York in the United Kingdom, he has developed interests in the evolving governance of public sciences, and in particular its impact upon the research process itself. This interest was spawned through a PhD in organization studies comparing the impact of research policy reforms – specifically the shift in attention towards 'translational science' – on different domains of medical science in British universities. This comparative approach towards governance effects has continued into his current work with the EPIC working group at CWTS, which focuses on the impact of performance-based evaluation and metrics on biomedical research in Dutch and British academic medical schools.