

## Response on Next-generation altmetrics: Responsible metrics and evaluation for open science

Swedish organisation VA (Public & Science; in Swedish: Vetenskap & Allmänhet) hereby submits our response to the call for evidence on the next-generation altmetrics. We would like to thank the Open Science Policy Platform and the expert group on altmetrics attached to it, for the opportunity to give our views and advice on the role and development of metrics and altmetrics.

VA's statement is written by Martin Bergman (PhD), Project Manager, Maria Lindholm (PhD), Director of Research and Cissi Billgren Askwall, Secretary General.

Best regards



Cissi Billgren Askwall

Secretary General

### **About VA (Public & Science)**

The non-profit association VA (Public & Science; in Swedish: Vetenskap & Allmänhet) works to promote dialogue and openness between researchers and the public. We believe that dialogue is a cornerstone of a democratic society and vital for ensuring that research leads to solutions to the challenges facing society globally.

The association has some 80 member organisations from different sectors of society and its remit includes carrying out studies, developing meeting formats, communication, and advocacy work, both nationally and internationally.

VA coordinates a national advocacy platform for the H2020 programme Science with and for Society, SwafS, and VA's Director of Research is the chair of the EC Advisory Group on SwafS. VA is also the Swedish hub for the EU funded project RRI Tools and for the European Researchers' Night events.

The organisation is financed through membership fees, project grants and funding from the Swedish Ministry of Education and Research.

### **VA's view on Altmetrics**

For many years the scientific community was an autonomous, self-contained system largely separated from the rest of society. This situation has slowly altered and will continue to change vastly in the future. Politicians and policymakers, as well as the research community itself, are now acknowledging that interactions between the research community and the society at large are key for the future development of research and innovation.

Interaction between science and society is important for many different reasons: Citizens have a democratic right to have access to research results and findings; individuals; organisations and elected

representatives need to be able to make decisions based on scientific evidence; to gain the acceptance, understanding and support of society to invest public funds in research; to inspire new generations to pursue higher education and research; to enable the perspectives of users and affected groups to be taken into account in research; and to help researchers and innovators gain new ideas and insights.

In Sweden, the interaction and collaboration between the research community and society at large has a long history, but from VA's point of view these aspects have not been emphasized enough until quite recently. The reasons for this are many, but much can be attributed to a more competitive academic environment with more researchers working in Sweden than ever before, as well as a larger proportion of researchers than before competing for external research funding. In this challenging environment for funding and positions, researchers, of course, prioritise activities that will give them advantages in that competition. What traditionally is awarded within academia are scientific publications, and to some extent, the quality of teaching. Public outreach, public engagement and interactions with the society at large have traditionally not been rewarded within the academic system.

However, there is now a clear shift towards measuring and promoting research impact in Sweden. The Swedish government has initiated projects to develop a system to evaluate and reward science-society interaction. The Swedish Research Council and the Swedish innovation agency Vinnova have been tasked with recommending how resources could be allocated to reward the quality of research, as well as investigate whether it is possible to measure the quality of interaction.

At an individual and institutional level, VA believes that universities need to introduce clear incentives and reward systems that include public engagement and science communication. Stakeholders involved in research should also be encouraged to demonstrate their commitment to public engagement. Good examples from the UK include the *Concordat for Engaging the Public with Research*<sup>1</sup> signed by research funding bodies and the *Manifesto for Public Engagement*<sup>2</sup> for universities and research institutes. In addition, there is a database of public engagement case studies published by the HEFCE<sup>3</sup> as well as expertise provided by the National Coordination Centre for Public Engagement.<sup>4</sup>

A prerequisite for public engagement, dialogue activities and public outreach to become a part of research evaluation and assessment is naturally good tools and reliable metrics. There are well established tools for measuring scholarly and scientific publishing, such as impact factors, citations and the *h*-index. But we have not yet developed reliable metrics and tools for fair and solid evaluation of public engagement and outreach activities. However, through the development of new technologies and web-based solutions, new opportunities arise to construct metric tools also for academic communication with non-academics. These new metrics, also known as *Altmetrics*, create an additional layer in scientific expertise and award activities that promote dialogue and build bridges between researchers and the public. VA strongly supports this new direction.

Altmetrics is still a new and untested technique for evaluating research impact. Even though it has great potential and is a promising method for including public engagement and outreach in scientific assessments and evaluation, it needs further development and refinement. For Sweden, the EU is an obvious body to co-ordinate and take a global lead in this development.

There are two main aspects of altmetrics that need to be further developed: Firstly, we need to make sure the metrics are reliable. Altmetrics based upon information from social media and internet traffic stand the risk of being altered and manipulated. We need to develop metrics and tools that can ensure that the data is fair and reliable. This is of utmost importance and a prerequisite for altmetrics to become widely accepted and used within academia.

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<sup>1</sup> <http://www.rcuk.ac.uk/pe/Concordat/>

<sup>2</sup> <http://www.publicengagement.ac.uk/support-it/manifesto-public-engagement>

<sup>3</sup> <http://www.ref.ac.uk/>

<sup>4</sup> <http://www.publicengagement.ac.uk/>

Secondly, we need to increase and intensify the participation of the research community in the development of altmetrics. The EU should continue to raise awareness of how altmetrics can be used and how the impact of other parts of academic work than scientific publications can be measured and evaluated. It is key to involve researchers in the development and improvement of altmetrics and the tools to measure altmetrics. But it is likewise crucial to include all contributing parties, users and interested stakeholders in order to create a system that meets the variety of needs and views of the different user groups.

In a recent study, a survey was sent out to all universities in Sweden and their main libraries to investigate how well-established altmetrics are and its use within Swedish universities. The study showed that most university libraries are familiar with altmetrics but few are actually using it as a tool (Nordfeldt, 2015)<sup>5</sup>. The study also concluded that Swedish researchers viewed altmetrics as a “fun” way to see their own public impact, but not as a tool for proper and fair evaluation. This study emphasises the importance of involving the research community in the future development of altmetrics. Furthermore, there is a large need for continued efforts to promote interactions between researchers and society.

The development towards openness in science is real and has recently started with the important agreement of the Competitiveness Council in May 2016 to a set of conclusions on the transition towards an open science system. As open science will develop and become a natural part of the scientific world, altmetrics will become a key tool to support this openness.

## **Conclusion**

VA supports the international development of altmetrics and foresees a promising future for this way of assessing academic work. There are two ways altmetrics can be especially valuable: First and foremost: In the daily work of researchers and other societal actors, altmetrics is a useful tool for identifying scientific work that has high public impact. Secondly: In research evaluation and assessments to promote openness and transparency in science, altmetrics plays an important role in evaluating public engagement.

The development of open science has just begun and much work remains. The future progress of altmetrics and altmetric tools needs to be conducted through direct and open dialogue involving different users, stakeholders and contributing parts. This way, the outcome has good chances of becoming acceptable, usable and sustainable, and serving both the needs of academia and those of society at large.

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<sup>5</sup> <http://hb.diva-portal.org/smash/get/diva2:840636/FULLTEXT01.pdf>