

# Aberystwyth University statement on the responsible use of research metrics

## Preamble

Metrics are increasingly being used to assess the quality of research, both by institutions and by individual researchers. While they offset some of the problems of expert review (subjective bias, time required, etc.), they create problems of their own.

Research assessment at Aberystwyth will continue to use expert judgement and review. Metrics will be used to inform and support this judgement, and will be chosen carefully and appropriately depending on the context and purpose of the exercise taking place.

This statement outlines our principles for, and approach to, the responsible use of research metrics. It draws upon the "[San Francisco Declaration on Research Assessment](#)", the "[Leiden Manifesto](#)", and the "[Metric Tide](#)" reports.

## The Use of Metrics at AU

The responsible and ethical use of metrics has the potential to drive forward world-leading research, and to help improve the visibility and impact of our research.

The University may therefore use metrics in order to:

- (i) Monitor the performance of research units over time.
- (ii) Inform decisions on selection and promotion in those disciplinary areas where metrics are robust and widely accepted (at present, those areas where metrics are used to inform REF2021 assessments on research quality).
- (iii) Help in providing performance expectations at different career levels, especially in those disciplinary areas where metrics are robust and widely accepted (again, at present those areas where metrics are used to inform REF2021 assessments on research quality).
- (iv) Provide additional information in the process of hiring research staff.

## The Limits of Metrics in Assessing Research Quality

The use of metrics is not a replacement for expert judgement, and the use of only one metric to reach a judgement on the quality of research is wholly inappropriate.

The University also recognises that:

- The use of metrics is a complex task, and that usage varies greatly across disciplines and even sub-disciplines. There are serious limitations when relying on metrics in a manner that does not allow for these differences.
- Improperly used metrics can reinforce existing biases that halt the enhancement of diversity and equality amongst academic staff, it is important that metrics are used with an awareness of their limitations.
- Various research metrics exist, and when an appropriate grouping of these metrics is selected and used together, they can *inform and support* but not replace expert judgment and review.

When undertaking any assessment of research quality, those involved must be aware of the possible consequences of their activities. The potential for any form of research assessment, including both expert review and the use of metrics, to reflect or introduce bias must therefore be understood and addressed. In particular, with regard to metrics, because any citation counting tools and other quantitative indicators are inherently skewed to English language publications, it is important that academics producing work in languages other than English are not penalised for this. We are particularly aware of the limitations of metrics in assessing the research quality of Welsh medium outputs.

It is also important to note that all research is not the same. There are differences in research inputs, the research process, publication patterns, methods of publication, citation patterns, and behaviour across disciplines. Any disciplinary biases must therefore be acknowledged and addressed as well as the sensitivities of different modes of outputs to analysis by metrics (including performance based research). Research assessment activities should be tailored to the research being assessed. Particular vigilance is needed when using research metrics in small scale exercises such as the assessment of individual researchers.

## Addressing the Reliability of Metrics

Research assessments which use metrics should be designed in a way to account for and minimise their potential shortcomings in areas such as accuracy, quality, transparency, and coverage. In particular:

- Any limitations in data sources must be acknowledged.
- Undue significance should not be placed upon a single indicator taken out of context.
- Metrics should be aggregated at an appropriate level: University, faculty, or departmental.
- As research quality is a complex and multifaceted subject, it cannot be captured by a single indicator used in isolation.
- The use of journal-based metrics, such as Journal Impact Factors or the ABS Academic Journal Guide, should not be used as a proxy measure for assessing the quality of an individual research article.
- The content of a paper is more important than the identity of the journal in which it was published.
- Research metrics are influenced by a wide range of individual factors, such as career stage, gender, and discipline. These factors must be considered when interpreting metrics.
- Academic staff undertake a wide range of research activities, not all of which can be easily quantified. When assessing the performance of individuals, consideration will be given to as wide a view of their expertise, experience, activities, and influence as possible.

## Responsibility

The University will:

1. Ensure metrics are only used in compliance with this statement.
2. Be explicit about criteria used to reach decisions, clearly highlighting, especially for early-career researchers, that the content of a paper is more important than the identity of the journal in which it was published.
3. Ensure, for the purposes of research assessment, the value and impact of all research outputs (including datasets, software, performances, etc.) be considered alongside research publications. A broad range of impact measures including qualitative indicators, such as influence on policy and practice should also be considered.
4. Apply metrics consistently, fairly, and transparently.
5. Inform in advance of the use of metrics in any process, including within recruitment, probation, and promotion processes. The rationale for their use alongside qualitative assessment should be stated. Any research metric that is used, must be used transparently.
6. Provide suitable access to, and training on, the use of appropriate tools for accessing and analysing publication, collaboration, and citation data used by the University.

Researchers should:

1. Make assessments based on content rather than publication location/metrics.
2. Wherever appropriate, cite primary literature, on publisher sites in which observations are first reported rather than reviews, in order to give appropriate credit.
3. Use a range of article metrics and indicators on personal/supporting statements, as evidence of the impact of individual published articles and other research outputs.
4. Challenge research assessment practices that rely on Journal Impact Factors; and promote best practice that focuses on the value and influence of specific research outputs.
5. Take responsibility for individual records, ensuring that they are up-to-date, complete, and accurate. This could involve correcting records or contacting those responsible for them in order to facilitate correction.
6. Register for and use an ORCID to ensure consistent and reliable attribution of work.
7. Use citation analysis tools such as SciVal in a responsible way.

## Transparency

Whenever research metrics are used in an assessment process, including within recruitment, probation, and promotion processes, their use must be transparent and available upon request to those being assessed. This would include methodology and data sources, with the opportunity for those being assessed to review and correct data regarding their work.

Quantitative research metrics will be used as guides, not as decisive measures of research quality. The reasoning behind the use of particular metrics must be discussed, highlighting the factors considered, and the use of overly precise numbers that give an illusion of accuracy will be avoided.

Metrics should be used for limited and stated purposes by informed staff, and kept as up to date as possible.

### **Scrutiny**

As the range and appropriateness of quantitative research metrics evolve, the goals of research assessment also shift. The University will monitor these developments to review and revise the baskets of metrics used for assessment.

### **Accountability**

Individuals concerned about:

- Practices relating to the use of research metrics at the University.
- Examples of metric use at the University contravening the principles contained within this statement, or any of the three source documents mentioned in the Preamble.

should contact the Pro-Vice-Chancellor for Research, Knowledge Exchange, and Innovation ([Prof. Colin McInnes](#)), in the first instance.