

# **Altmetrics: Rethinking and Exploring New Ways of Measuring Research Outputs**

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## **Scientific Abstract**

Overall, this project investigates new approaches offered by social media to rethink and explore new ways to measure research outputs. Throughout the project, we aim to explore different approaches by comparing traditional metrics and altmetrics, which are new metrics based on social media.

The initial study conducts a literature survey and accumulates a list of traditional metrics and altmetrics and then formulates a framework to conduct cross-metric validation, and ideally identify factors that could help to enhance research impact. Developing a formal approach for modelling the propagation of research-related information in social networks will be the next step after understanding the information spreading model for research-related social media information dissemination and defining new data-driven metrics. Working with NTU Research Office and NTU Library, we will conduct cross-metric validation tests to investigate the effectiveness of altmetrics compared to traditional metrics for the “hard sciences” disciplines, “soft sciences” disciplines, and “innovation and commercialisation”.

Based on findings, the project will focus on the design, development and evaluation of a system prototype called **ARIA (Altmetrics for Research Impact Actuation)** for researchers, research institutes, universities and policy makers.

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