@HumanomicsMap

Responsible Research Assessment

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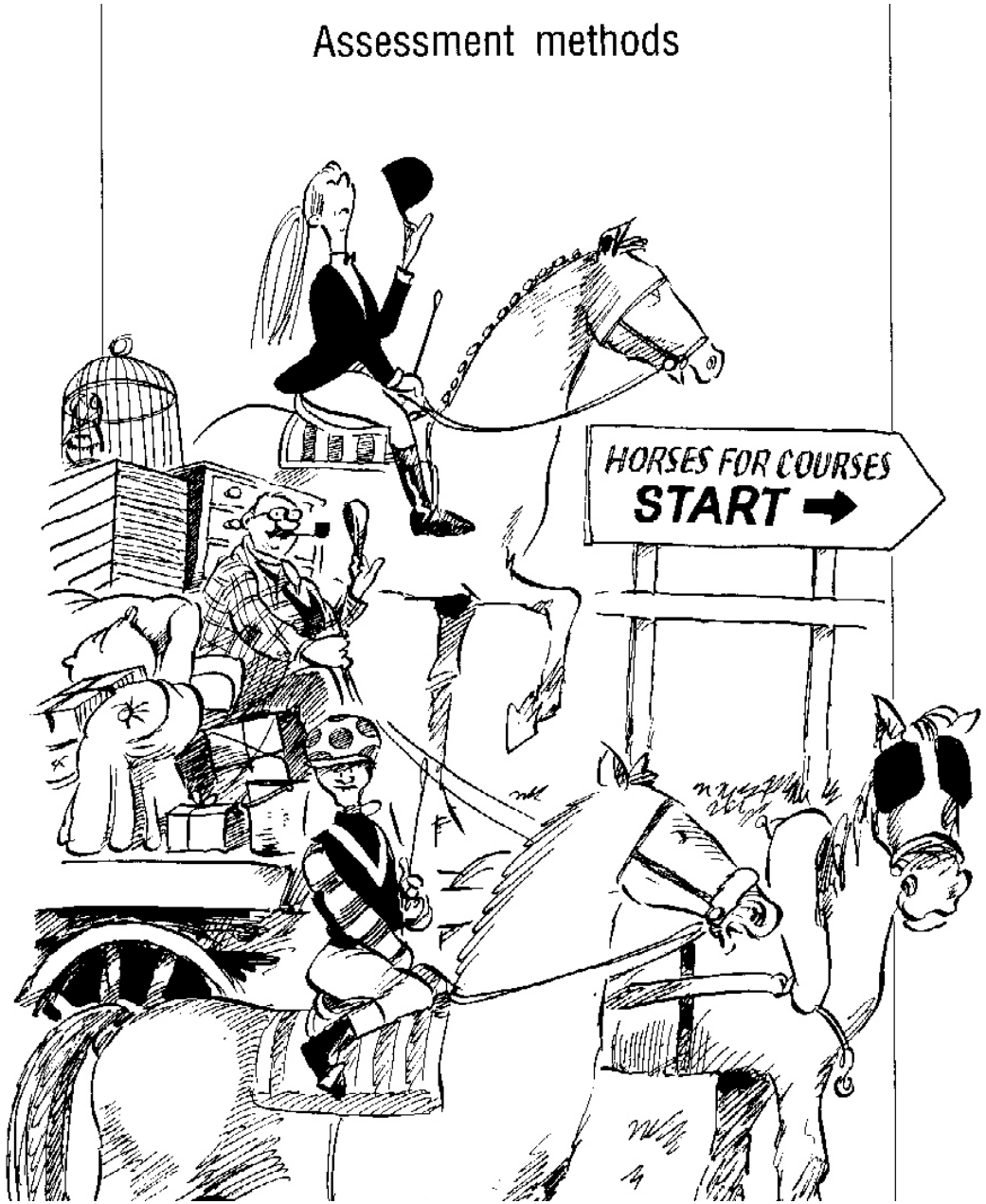
9 November 2023
UBVA symposium “Hvad er god forskning?”

AALBORG UNIVERSITET


Assessment methods
HORSES FOR COURSES
START

European Commission

Towards a reform of the research assessment system

Scoping Report

November - 2021

Research and Innovation

European Commission

Next-generation metrics:

Responsible metrics and evaluation for open science

Research and Innovation

AGREEMENT ON REFORMING RESEARCH ASSESSMENT

20 July 2022

Konsulteret litteratur (1)

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Konsulteret litteratur (2)

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Konsulteret litteratur (3)

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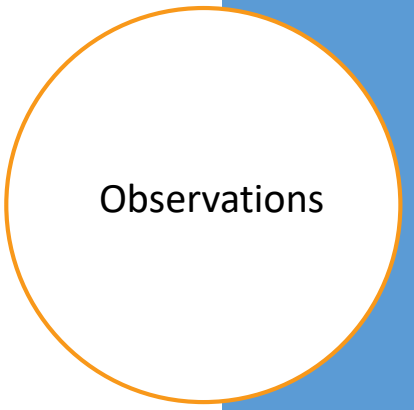
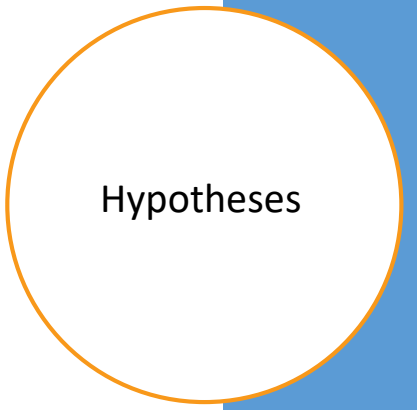
Reforming research assessment

- Growing concern in research community about one-dimensional assessment frameworks (‘invisible academia’, PI-centric).
- Growing concern about automated, quantitative assessment using bibliometric products and algorithms (h-index, JIF, etc.).
- Growing concern about gaming of indicators and metrics (publication bias, optimisation, slicing, citation-trade, #PleaseDontStealMyWork).
- Growing concern about the influence of journals and publishers in decisions over funding, recruitment, tenure and promotion.
- Crowing focus on field-normalized (domain-sensitive) assessment of research quality and impact (domain differences matter).



Cross-reference for excellence

- Top-tier publication records used as golden standard for assessment of excellence (including books with international university press).
- Individual excellence (of PI) weighted higher than **collaborative excellence** of teams (onboarding, value alignment, team composition).
- Quality of research is a composite concept made of originality, reliability, reproducibility, fruitfulness, relevance, novelty, impact, etc.
- Model of excellence based on HEALTH-centric PI-model with work packages, division of cognitive labour, clear research problem & strategy.
- Humanities (+ interpretative Social Science… + theoretical Natural Science) display different dimensions of excellence beyond metrics.



”I believe in a research culture that recognises a **diversity of contributions** to science and society; that celebrates high quality and impactful research; and that values sharing, collaboration, integrity and engagement with society, transmitting knowledge from generation to generation.”

Mariya Gabriel, EU Commissioner for Research & Innovation

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”Publish-or-perish and metrics have led us into a blind alley. Let’s start recognizing **the full breadth of value** created by researchers.”

Marc Schiltz, President of Science Europe

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What to include in ex post research evaluation (of humanities)?

- Base evaluations primarily on qualitative judgement, incl. assessment and review of outputs (noting issues w. inter-referee reliability, bias).
- Use quantitative indicators responsibly.
- Include assessment of **collaborative excellence** and team integration (diversity, progress, deliverables, outreach, networks, mobility).
- Interview research leaders about their core contributions (monographs, methods, techniques, datasets, talent-development, etc.).
- Use assessment criteria, methods and tools for joint reflection, exchange of good practices and mutual learning (use reference group).
- Evaluate research based on context (e.g., disciplinary or interdisciplinary) and the strategic goals and mission of each project or centre.

Frequently used indicators and criteria for humanities quality assessment

Indicators	Criterion
Citations [field weighted]	Recognition; impact on research community; relevance
Prizes	Recognition; impact on research community; relevance
Third party funding	Recognition; impact on research community; relevance; relation to and impact on society
Collaborations	Scholarly exchange; recognition
Knowledge exchange w. society	Relation to and impact on society
Publications	Scholarly exchange; productivity
Board memberships	Scholarly exchange; recognition; impact on research community
Recruitment	Continuity, continuation

Based on aggregated study of 70+ evaluation frameworks

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Adopted from Ochsner et al. 2012, 2014

Explorative indicators and criteria for humanities quality assessment

Indicators	Criterion
Presentations	Number and weighting of keynote presentations etc.
Organized events	Number and weighting of organized events (e.g., seminars)
Panel membership	Number, weighting and duration of service on professional committees, funding boards, academic boards,
Activities for the public	Number and weighting of outputs (popular books, public lectures, exhibitions, documentary films, media appearance)
Reviews of academic work	Number and weighting of review articles of work
Appointments	Number and weighting of appointments to a professorship, visiting or guest.
Success of junior researchers	Number and weighting of publications; honours, awards and prizes of students, number of citations etc.
Assessed openness	Assessment of openness of research group to talent and outputs

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AAUs nye forskningsindikator

Den nye indikator består af to dele:

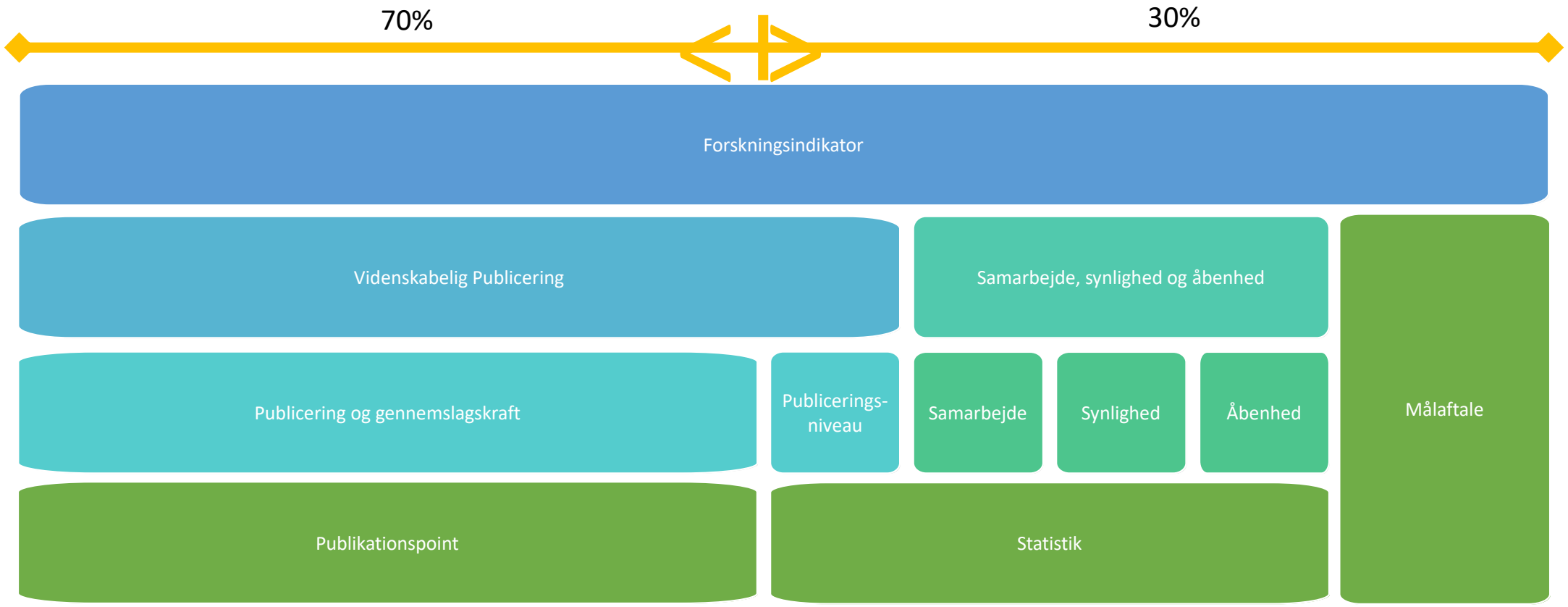
Del A: en bibliometrisk indikator med publikationspoint og citationer

Del B: en kvalitativ del med information, inklusive statistik, på et bredere grundlag om resultater af innovation og om samarbejde, synlighed og åbenhed i forskningspraksis.

Det betyder at…

Mens den bibliometriske del er fagneutral og direkte kan understøtte universitetets interne fordeling af basismidler til forskning, kan del B være til hjælp i udformningen og opfølgningen på mere fagspecifikke forskningsstrategier på institutniveau.

AAU Forskningsindikator



Thank you for the attention

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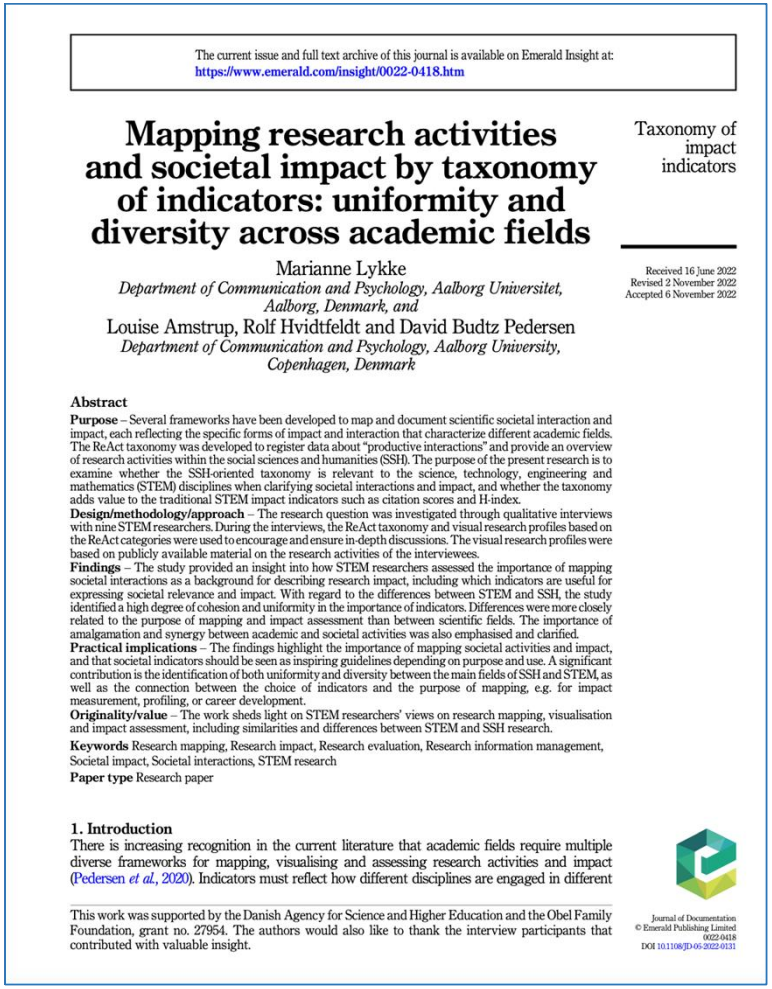

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Mapping research activities and societal impact by taxonomy of indicators: uniformity and diversity across academic fields

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Abstract

Purpose – Several frameworks have been developed to map and document scientific societal interaction and impact, each reflecting the specific forms of impact and interaction that characterize different academic fields. The ReAct taxonomy was developed to register data about "productive interactions" and provide an overview of research activities within the social sciences and humanities (SSH). The purpose of the present research is to examine whether the SSH-oriented taxonomy is relevant to the science, technology, engineering and mathematics (STEM) disciplines when clarifying societal interactions and impact, and whether the taxonomy adds value to the traditional STEM impact indicators such as citation scores and H-index.

Design/methodology/approach – The research question was investigated through qualitative interviews with nine STEM researchers. During the interviews, the ReAct taxonomy and visual research profiles based on the ReAct categories were used to encourage and ensure in-depth discussions. The visual research profiles were based on publicly available material on the research activities of the interviewees.

Findings – The study provided an insight into how STEM researchers assessed the importance of mapping societal interactions as a background for describing research impact, including which indicators are useful for expressing societal relevance and impact. With regard to the differences between STEM and SSH, the study identified a high degree of cohesion and uniformity in the importance of indicators. Differences were more closely related to the purpose of mapping and impact assessment than between scientific fields. The importance of amalgamation and synergy between academic and societal activities was also emphasised and clarified.

Practical implications – The findings highlight the importance of mapping societal activities and impact, and that societal indicators should be seen as inspiring guidelines depending on purpose and use. A significant contribution is the identification of both uniformity and diversity between the main fields of SSH and STEM, as well as the connection between the choice of indicators and the purpose of mapping, e.g. for impact measurement, profiling, or career development.

Originality/value – The work sheds light on STEM researchers' views on research mapping, visualisation and impact assessment, including similarities and differences between STEM and SSH research.

Keywords Research mapping, Research impact, Research evaluation, Research information management, Societal impact, Societal interactions, STEM research

Paper type Research paper

1. Introduction

There is increasing recognition in the current literature that academic fields require multiple diverse frameworks for mapping, visualising and assessing research activities and impact (Pedersen *et al.*, 2020). Indicators must reflect how different disciplines are engaged in different

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