

Rethinking Research Impact Assessment: A Multidimensional Approach

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1. Proposal Outline

- Contribution: ***Multidimensional Approach for Research Impact Assessment (MARIA Model)***
- Addressing shortcomings
 - UK, the Netherlands, Norway
- Assessment criteria:
 - ***Responsiveness, Accessibility, Reflexivity, Ecology and Adaptability***
- A more flexible and holistic approach
 - Fairer to SSH (Social Sciences and Humanities) in research impact evaluation

We do not propose a model for assessment of research ethics, but for
‘ethical assessment of research impact’

2. Challenges of Research Impact Evaluation

Shortcomings of research impact evaluation:

- Top–down approach
- Not attending to ethics of research impact generation
- Not attending to processual nature of research impact evaluation
- Often a final numerical assessment
- Cumbersome and time consuming

Our focus:

- Bigger than just measurement and metrics
- Holistic
- Critical
- Comprehensive

3. Conceptual Background

Wider change: Outreach and engagement

- Public intellectuals (Baert, 2015)
- Knowledge-based economy (Jessop, Fairclough, & Wodak, 2008)
- Universities' third mission (Brundenius & Göransson, 2011)

Demand to measure

- Bibliometrics and metrics-based rankings (Nalimov & Mulchenko, 1969; Hood & Wilson, 2001)
- Scientometrics and altmetrics (Priem et al., 2012; Galligan & Dyas-Correia, 2013)

The emergence of 'research impact' as a new academic value

- Context-based research impact assessment (Spaapen et al., 2007)
- Productive interactions and transdisciplinary collaborations (Spaapen & van Drooge, 2011)
- Need for a more holistic view (Anzai *et al.*, 2012)
- Fairer treatment of SSH (Benneworth *et al.*, 2016)

4. Existing Systems of Research Impact Evaluation (1)

United Kingdom (UK): Research Excellence Framework (REF)

- Focus on the 'effects' of impact-related activities
 - No processual aspect and intermediate consequences
- No reflection
 - Ethics of impact generation
- Performance-oriented, results-placed evaluation
 - Academics make unrealistic, idealized and exaggerated accounts of impact

The Netherlands (NL): Standard Evaluation Protocol (SEP)

- Ignores processual nature and intermediate achievements
- "One Size Fits All" model
 - Ignores variety of interactions - researchers, environment, stakeholders
- Scale "unsatisfactory-good-very good-excellent"
 - May neglect a number of impact studies

4. Existing Systems of Research Impact Evaluation (2)

Norway (NO):

- May inherit REF's (UK) weaknesses
- Subject-specific evaluations may discourage transdisciplinary research
- The general character of the feedback (no scores provided, even in aggregated form) renders improvement difficult and may not mobilise positive change

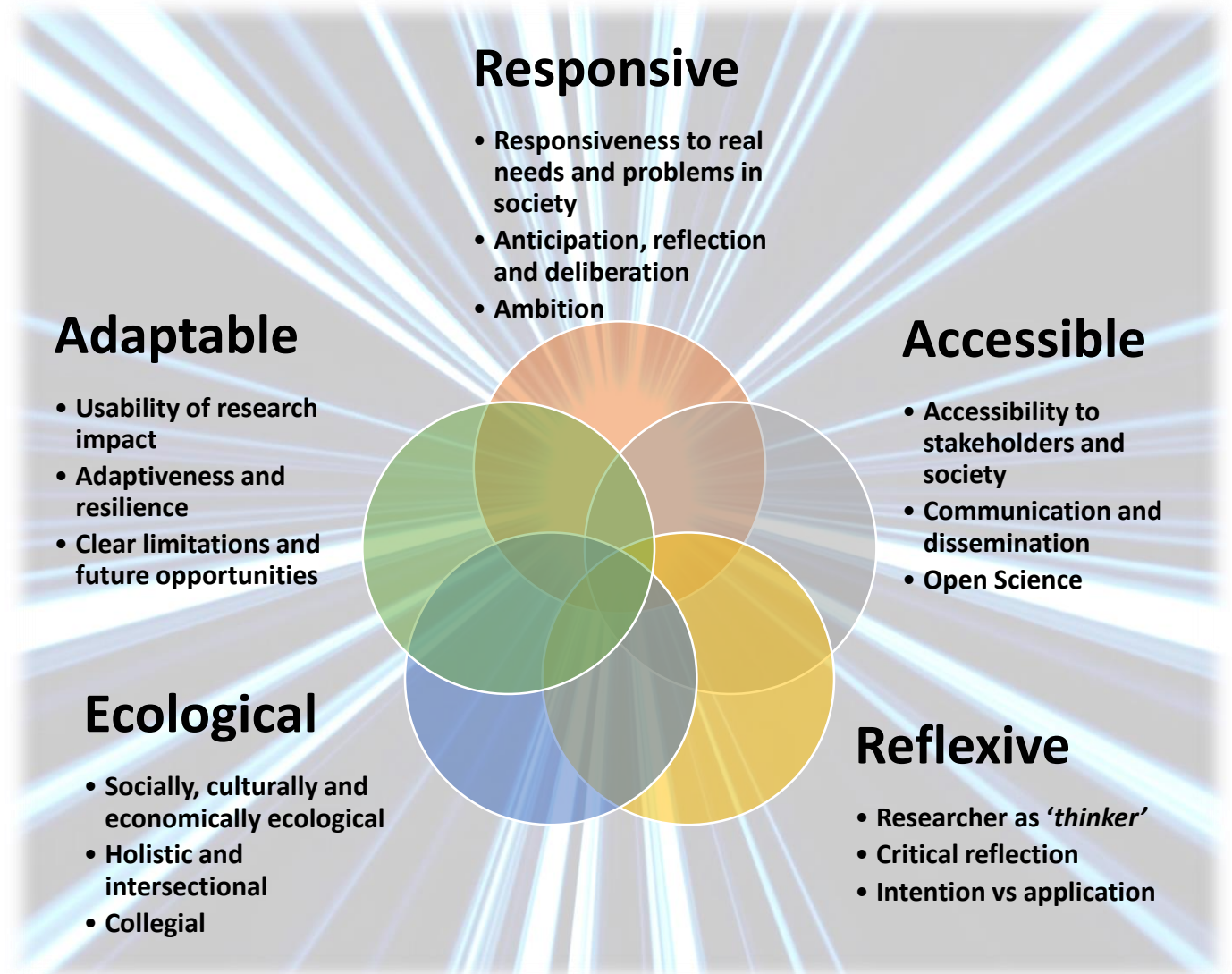
Review - All Three Systems (UK, NL, NO)

- Peer-reviewing = most common way to assess societal impact
 - Especially in ex ante assessments
- Ignores multidimensional nature of research impact

5. Our Proposal: A Multidimensional Model

Our model:

- For self-assessment specifically
- Should stimulate reflection
- Works for different research stages
- Recognises strengths and points to weaknesses
 - Multiple scores
- Simple and time-efficient
- Flexible, holistic, and fairer to SSH



6. Dimensions of Research Impact: Responsiveness

Responsive

- Real problems and issues in society
- Owen *et al.* (2012)
 - Anticipation
 - Reflection
 - Deliberation

“Authentic thinking, thinking that is concerned about reality, does not take place in ivory tower isolation, but only in communication”

Paolo Freire (2000)

Ambitious

- Make clear, specific and valuable contributions

Responsible

- Achieving Responsible Research and Innovation (RRI)

EXAMPLE

The body of knowledge on environmental sustainability and clean energies (Song, 2001; Dunn 2002; Tilman et al., 2002; Kamat, 2007; Ostrom, 2009; Chu & Majumdar, 2012; among several others) responds to the global warming and pollution problem that threatens society and which has been on the increase during the last two decades; this growing research stream is responsive to a relevant issue in current society.

6. Dimensions of Research Impact: Accessibility

Accessible

- Stakeholders and society, within reason
- Communication and dissemination
 - Inside and outside
- Public Academics
 - Watch out for extreme accessibility
 - Holistic model
- Open Science Movement
 - *The Amsterdam Call for Action on Open Science*

“Making research results more accessible to all societal actors contributes to better and more efficient science, and to innovation in the public and private sectors”

European Commission (2018)

EXAMPLE

Why We Post – Social Media through the Eyes of the World is a collaborative effort from nine anthropologists “researching the role of social media in people’s everyday lives”. (University College London, n.d.) The most extraordinary part of their research was how they communicated findings.

6. Dimensions of Research Impact: Reflexivity

Critical reflection

- Has the process of theorizing and research design been comprehensive, well-planned, ethical, and critical?
- Have the research theories and conclusions been thoroughly broken down, evaluated, and critiqued?
- Not contributing to inequality
- Acting upon reflection
 - True change

*“Train PhD students to be thinkers not just specialists...
put the philosophy back into the doctorate of philosophy”*

Gundula Bosch (2018)

EXAMPLE

Within the paper “Designs and (Co)Incidents: Cultures of Scholarship and Public Policy on Foreigners/Minorities in the Netherlands” (Essed & Nimako, 2006), the authors argue for an increased level of reflexivity on Race Critical Perspectives in the Dutch academic community. They contend that these frameworks on race and power hierarchies have been disregarded in favour of what they term ‘minority research’.

6. Dimensions of Research Impact: Ecology

Ecological

- Environmental
- Scoones (1999)
 - Socially, Culturally, Economically

“What can be studied is always a relationship or an infinite regress of relationships. Never a ‘thing’”

Gregory Bateson (2000)

Holistic and Intersectional

- Relational

Collegiality

- Open to other researchers
- Supporting junior colleagues
- Treating people in a non-instrumental way
- Considering the well-being of others

EXAMPLE

An impact case study submitted to the British REF described a situation in which scholars working on a speech therapy device had too many volunteers for the experimental treatment. In order not to disappoint potential patients who would have to be turned away, the scholars decided not to publicize the experimental treatment at the current stage, despite the fact that this could limit their ‘claim to impact’, possibly resulting in a lower score in the REF.

6. Dimensions of Research Impact: Adaptability

Adaptable

- Different contexts and stakeholders

“Being open to the possibility that our understanding or definition of a research problem may be inappropriate or partial”

Maureen G. Reed & Evelyn J. Peters (2014)

Adaptive and Resilient

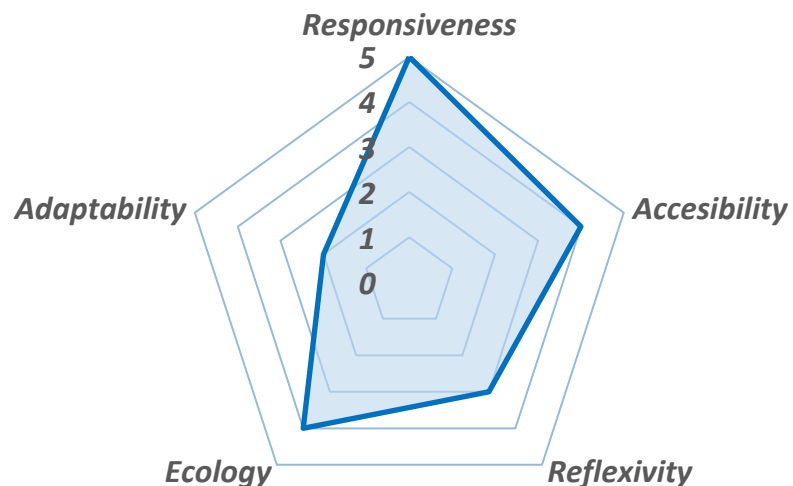
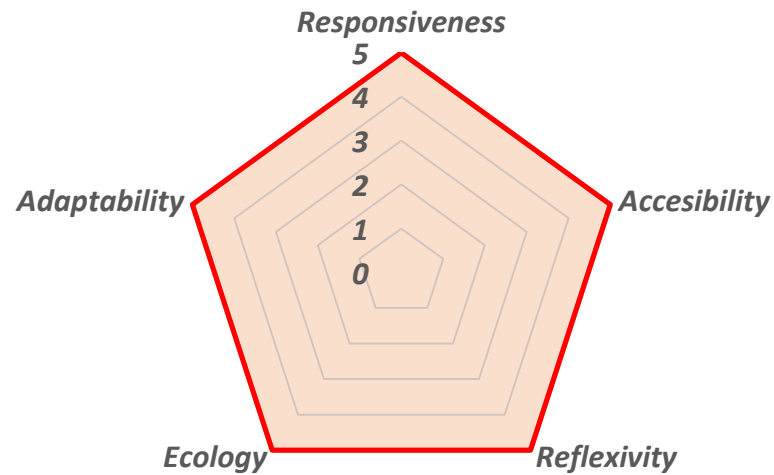
- Reed & Peters (2014)
 - “Embrace the uncertainty and partiality of knowledge creation as well as the dynamism of the research process”

Explicitly linked to ***Responsiveness***

EXAMPLE

The Blue Ocean Strategy, formulated by Kim & Mauborgne (2004), is a marketing theory that transcended academy and has been followed by many firms and entrepreneurs around the world. Such strategy proposes that firms aiming at developing strong competitive advantages should look for unexploited market spaces, avoiding competition and focusing on innovation. This work has also inspired many research pieces including empirical applications and theoretical developments on organisational strategy.

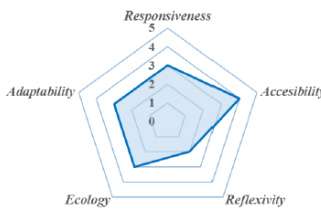
7. The Model in Practice (MARIA Pentagon)

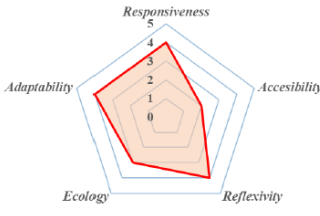


- ✓ Does my research respond to real problems and needs in society? Am I contributing to current public debates?
- ✓ Are my research outputs accessible to different stakeholders and society in general? Do I communicate and disseminate my research broadly and effectively?
- ✓ Do I reflect on how comprehensive, well-planned and ethical my research is? Have I evaluated and critiqued my theories and analyses?
- ✓ Does my research consider the relationships and connections among stakeholders and subjects? Was I collegial while conducting this research?
- ✓ Is my research impact usable in different contexts and among different stakeholders? Am I aware of the limitations, future research opportunities and unanswered or emerging questions from my research?

8. Self-Assessment Examples (1)

Ex-ante research impact self-assessment example (Good, 2018)	
Responsiveness <i>Does my research respond to real problems and needs in society? Am I contributing to current public debates?</i> Racism in the Netherlands is an under-researched topic within a race and diversity critical perspective. Also, literature on the pedagogical applications of transformative learning remains limited. Grade: 5.0/5.0	Research Description Title: Teaching critical perspectives – The transformative learning potential of diversity courses within Dutch higher education. Type: PhD thesis. Dates: September 2018 – Present. Objective: Studying to what degree diversity education courses in The Netherlands successfully meet course objectives, incorporate critical perspectives, and reduce racist behaviours while encouraging further exploration of these issues beyond the classroom. Author: Bradley Good. Institution: Vrije Universiteit Amsterdam (NL). Status: Formulation.
Accessibility <i>Are my research outputs accessible to different stakeholders and society in general? Do I communicate and disseminate them broadly and effectively?</i> My research outputs will primarily exist in the form of journal articles and potential policy documents with direct access available to all participating stakeholders. Grade: 2.0/5.0	Self-Assessment Conclusions Research Impact Pentagon  Assessment Conclusions Overall my research seems to be successfully planned for moderate research impact. However, accessibility could greatly improve, with a secondary emphasis on ecology. While adaptability does not have a high score, this is primarily due to the limited scope of research, which is unavoidable.
Reflexivity <i>Do I reflect on how comprehensive, well-planned, ethical and critical my research is? Have I evaluated and critiqued my theories and analyses?</i> I regularly revise and update my research plan in accordance with new literature and theories. My analysis itself is based on a theoretical frame that encourages deconstruction and critical analysis. Grade: 4.0/5.0	
Ecology <i>Does my research consider the relationships and connections among stakeholders and subjects? Was I collegial while conducting this research?</i> My research subjects are also some of my most important stakeholders as improving their educational opportunities benefits them, as well as their instructors and institutions. Grade: 3.0/5.0	
Adaptability <i>Is my research impact usable in different contexts and among different stakeholders? Am I aware of the limitations, and unanswered or emerging questions from my research?</i> While my research focuses on a Dutch context, it could be adaptable to other higher education cultures in the future but only after multiple studies. This is due to the limited sample size and time constraints. Grade: 3.0/5.0	

Mid-term research impact self-assessment example (Manrique, 2018)	
Responsiveness <i>Does my research respond to real problems and needs in society? Am I contributing to current public debates?</i> University-firm collaboration can be a powerful tool for the performance of firms and for the development of regions, which can indirectly end up benefiting citizens. However, my research is primarily focused on the economic impact on industry. Grade: 4.0/5.0	Research Description Title: Assessing the impact of university-firm collaboration on firm performance and regional development (part of a horizon 2020 training network). Type: PhD thesis. Dates: February 2017 – Present. Objective: Assessing the impact of university-firm collaboration on firms' innovation capacity and economic performance, and exploring how such impact translates into economic growth and social development in the regions where the interaction takes place. Author: Sergio Manrique. Institution: Universitat Autònoma de Barcelona (ES) Status: In execution. More info at: https://runinproject.eu/sergio-andres-manrique-garzon/
Accessibility <i>Are my research outputs accessible to different stakeholders and society in general? Do I communicate and disseminate them broadly and effectively?</i> Research in my project is meant to be published in Open Access outlets. I am active in attending conferences and workshops to communicate and disseminate my findings. Work in progress and other research outputs (blog posts, reports) are publicly available at the project website. Grade: 4.5/5.0	Self-Assessment Conclusions Research Impact Pentagon  Assessment Conclusions My PhD project's impact is boosted by being part of a Horizon 2020 training network, through which accessibility of research outputs is facilitated. Additionally, I make part of an established network of academics and regional stakeholders, which contribute to shaping my research in a responsive manner. However, by being a project planned in advance (before recruiting researchers), the range of action on the research design is limited, and there hasn't been too much focus on critical thinking.
Reflexivity <i>Do I reflect on how comprehensive, well-planned, ethical and critical my research is? Have I evaluated and critiqued my theories and analyses?</i> PhD topics within this Horizon 2020 project were mostly fixed. I have, however, spent a significant amount of time planning the methods and data I should use. In the end, I incorporated a qualitative approach to a project which was planned to be quantitative, and now I am conducting mixed methods research. Grade: 1.5/5.0	
Ecology <i>Does my research consider the relationships and connections among stakeholders and subjects? Was I collegial while conducting this research?</i> I make part of a team of junior and senior researchers as well as regional and non-academic partners. My project is one piece in the larger RUNIN proposal. Grade: 3.0/5.0	
Adaptability <i>Is my research impact usable in different contexts and among different stakeholders? Am I aware of the limitations, and unanswered or emerging questions from my research?</i> What I am doing using Spanish data can be readapted using data from other countries and regions, and for phenomena beyond university-firm collaboration. I always state research limitations in my publications. Grade: 3.0/5.0	

Ex-post research impact self-assessment example (Wróblewska, 2018)	
Responsiveness <i>Does my research respond to real problems and needs in society? Am I contributing to current public debates?</i> My study of the Impact Agenda responds to a need of academics and policy-makers to tackle the question of impact evaluation, focusing on the under-studied aspect of language change and self-representation. Since I started my PhD, systems of impact evaluation have been adopted in several countries, generating considerable interest in my work's practical implications, particularly in the linguistic aspect of editing impact case studies. Grade: 4.0/5.0	Research Description Title: The making of the Impact Agenda – A study in discourse and governmentality. Type: PhD thesis. Dates: October 2014 – September 2018. Objective: Examining the change in academic discourse engendered by the introduction of the Impact Agenda and its link to practices of subjectivation (work upon one's 'self'). Author: Marta Natalia Wróblewska. Institution(s): University of Warwick (UK) Status: Concluded (now in dissemination phase) More info at: https://warwick.ac.uk/mnwvrolewska
Accessibility <i>Are my research outputs accessible to different stakeholders and society in general? Do I communicate and disseminate them broadly and effectively?</i> I have drafted an 'executive summary' of the findings from my PhD work and shared it with the study's respondents and stakeholders. The reach of my findings remains limited, but I am seeking funding for a practice-oriented publication, ideally in open access. Grade: 2.0/5.0	Self-Assessment Conclusions Research Impact Pentagon  Assessment Conclusions Given that my work focused on the rise of 'impact evaluation', I was constantly questioned by audiences about the impact of my own work. This incentive, combined with resources offered by my institution for fostering responsible outreach, account for the fact that I have reflected on and pursued impact in my PhD project. The weakness of my project seems to be accessibility of findings and so I resolved to focus on creating open-access publications on the practical elements of my research findings, which would improve my score in this area.
Reflexivity <i>Do I reflect on how comprehensive, well-planned, ethical and critical my research is? Have I evaluated and critiqued my theories/analyses?</i> Reflexivity and ethics were at the core of my study. Still I question to what degree my critical standpoint is influenced by my academic background – one needs to be critical of 'critical theory' too! Grade: 4.0/5.0	
Ecology <i>Does my research consider the relationships and connections among stakeholders and subjects? Was I collegial while conducting this research?</i> To a large degree my work was solitary and individualistic. I might not have fully used the potential present in my research team. I also worry about the control I have over the application of my findings by stakeholders. Grade: 3.0/5.0	
Adaptability <i>Is my research impact usable in different contexts and among different stakeholders? Am I aware of the limitations, and unanswered or emerging questions from my research?</i> I've engaged with stakeholders in other countries (Poland, Norway) pointing to opportunities and challenges related to adapting impact evaluation. In this sense my research is adaptable, but the question remains to what degree can a scholar influence policy? Grade: 4.0/5.0	

8. Self-Assessment Examples (2)

Bradley Good: *Ex-Ante*

- Major funding application
 - Treatment of research impact cursory
 - Over-utilization of narrative
- MARIA Model
 - More concrete
 - Accessibility lower than originally thought
 - Incorporating in official PhD Eight Month Proposal

Sergio Manrique: *Midterm*

- Familiar with project/institutional assessment
 - No reflection on individual research impact
- MARIA model
 - Additional considerations
 - Stakeholders/general public
- Research impact
 - Can be generated by actions in research process too

Marta Wróblewska: *Ex-Post*

- All want to be reflexive, accessible, adaptable
 - No time taken
 - “One more”
- Incentive to step back
- ‘Serendipity’ of impact
 - Where research has been influential but not planned that way

9. Conclusions

- Self-assessment
- Recognizing work complexity
- Recognizing and reflecting on the ethics of conducting impactful research



Both what is lacking in previous models and what our research addresses

Our proposal contributes to the ongoing learning process of research impact, in alignment with the context-based perspective of research assessment and in recognition of the need for a more holistic view in the observation and monitoring of interdisciplinary research.

Thank you!

Questions?

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