

# Concerns That 10,000 Faculty Nationally and Internationally Have About Research Impact: Isn't It All Academic Research Impact (ARI) If It Comes From The Academy?

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## The Paradigmatic Shift Towards Research Impact in the Academy

In the last four decades there has been increased emphasis for faculty to show and effectively expand the impact of their Academic Research Work\*. This trend has occurred nationally, internationally, and is expected to persist through recent national and international events.

There are now summits and conferences such as the [National Alliance for Broader Impacts Summit \(NABI\)](#) now called [Advancing Research in Society \(ARIS\)](#) in the United States (US) and International Impact for Science, Humanities, and Social Science Conferences. Many of these international conferences that focus on pushing forward the impact agenda are facilitated by [The Network for Advancing & Evaluating the Societal Impact of Science \(AESIS\)](#).

There is rapid proliferation of both new businesses and independent organizations that focus on helping others manage and maximize the impact of their research. These businesses and organizations range from assessment to communications and scholarship, to training individuals on how to extend the reach of their research work. Some examples of these are: Knowledge Translation Australia by [Tamika Heiden](#) who also facilitates the largest online impact summit; Jenny Ames Consulting Ltd in the United Kingdom (UK) by [Jenny Ames](#); Institute for Knowledge Mobilization and Peter Norman Levesque Consulting in Canada by [Peter Levesque](#); and Broader Impacts Productions, LLC in the United States (US) by [Kirsten Sanford](#).

Simultaneously, impact blogs and blogging have increased in number over the last ten years. These impact blogs are also increasingly gaining support and recognition in the Academy. For example, one of these is the [London School of Economic and Political Science \(LSE\) Impact Blog](#). The LSE Impact blog is based in the LSE Communications division and is financially supported by the HEIF5 program ran by [LSE Knowledge Exchange](#).

Evidence of this paradigmatic shift can also be seen by the number of societal benefitting-like terms, names and phrases now being used around the world. Many of these terms, names, and phrases have been contextualized for maximizing the impact of academic research. These include but are not limited to phrases, terms, and concepts such as: Capacity Building in Africa; Equity in Development in India; Broader Impacts, Broader Implications, Collective Impact, and Relevant or Ultimate Outcomes in the US; the Engagement and Impact Assessment (EI) Framework and Knowledge Exchange in Australia; Knowledge Mobilization in Canada; Valorization in the Netherlands; Harmonious Development in South America; Economic & Social Development and Influence in China; and the Research Excellence Framework (REF) in the European Union. Almost every country, [roughly eighty-two percent \(82%\)](#), uses a societal-benefit name, term, phrase, or concept that indicates ARI is important.

This is accompanied by the growing number of professionals and positions to address and actionize these

concepts, names, and phrases in academic institutions, agencies, organizations, and governance. For example, there is [Susan Renoe](#), Director of NABI and ARIS who started The Connector formally called the Broader Impacts Network (BIN) in the US; [David Phillips](#) who leads an award-winning Knowledge Mobilization Unit in Canada; [Julie Bayley](#) who is the Director of Impact Development and [Mark Reed](#) who is a professor and transdisciplinary researcher specializing in environmental governance and research impact in peatlands and agri-food systems both in the UK; and [Emma Johnston](#) who initiated a Science for Impact Center in Australia focusing on Knowledge Exchange.

In addition, some ranking organizations have started to include Overall Impact on Society (OIS) metrics to rank universities and colleges. This includes how university's and college's research are benefiting society.

For example, in 2019 "THE WORLD University Rankings" facilitated by Times Higher Education, provided their first ever rankings specifically focused on University's and College's Impact on Society. These impact rankings are based on the United Nations (UN) seventeen (17) Sustainable Development Goals (SDGs) provided in Figure 1.



Figure 1: United Nations (UN) Sustainable Development Goals (SDGs)

## The Two Major Divisions of ARI: The Internal and External

Many of these terms, concepts, and phrases also encompass a wide range of both Academic Research Internal (in proximity of and inherent to the Academy's research, scholarly, and creative activity enterprise) and External Impacts (primarily considered to be with and for the public and society).

Internal ARI in many circles is thought to be closely related to a term called academic impact. Some have stated that academic impact is the research knowledge contribution to a field of study within academia ([link](#)).

External ARI is thought of by many individuals, agencies, and governance boards to be closely related to a term called research impact. This is impact that extends outside of academia. This concept of research impact has been highly emphasized by many agencies and governance boards that provide funding for academic research [1,2,4,6,7,9,11,12,14,17]. Examples of what would fit in these two major categories of ARI are provided below.

Some examples of External ARI would be: generating better public perceptions; increasing public engagement and understanding; increasing a competent and well-prepared workforce; increasing literacy; bettering the economy and environment; generating more businesses and useable technologies; enhancing and changing public policy outside of academic institutions; increasing well-being, competency, and the human condition; and empowerment.

Some examples of Internal ARI would be: money to do basic, social science, arts, humanities, and translational or applied research; improving internal university structures, values, and ideas; enhancing and changing public policy inside of academic institutions; generating, discovering, or disseminating knowledge, publications in journals etc., or having book contracts; generating patents; and acquiring Facilities & Administrative (F&A) cost better known as Indirect Cost (IDC) to maintain and expand university and college research infrastructure and support services.

## Faculty Conversations About Impact

I have heard from more than ten thousand (10,000) faculty at numerous Universities and Colleges throughout the world comment on ARI. Why talk to so many faculty? I have heard from more than ten thousand (10,000) faculty at numerous Universities and Colleges throughout the world comment on ARI. Why talk to so many faculty?

There were two main reasons. One, is because I love talking and working with faculty. The second reason, I wanted to understand what faculty really thought about the topic especially after being asked by a faculty colleague – “Isn’t it all Academic Research Impact (ARI) if the impact is associated with research and it comes from someone in the Academy?”. At the time this question was asked, I could not provide an informed response to this question.

During these conversations with faculty several said that they welcomed the increased focus on both academic Internal and External aspects of impact. However, **most faculty stated that the increased emphasis on many of these aspects caused them uneasiness, anxiety, and panic.** Some even indicated defiance. This is especially salient when the appropriateness of Internal and External ARI must both be addressed together to secure research funding.

However, this was not because faculty did not want to make Internal and External impacts. **For the majority of faculty, there were several more significant interrelated factors at play.** Factor 1 is discussed below and appeared to be the most obvious of all the issues.

## Factor 1 – The Search For ARI Meaning, Value, and Placement

One factor that faculty said contributed to their uneasiness about the impact agenda was the ambiguity of and non-parallelism between research impact definitions. Provided in bold are just a few questions and comments that numerous faculty asked and made as a response to the increased emphasis on impact nationally and internationally.

**“What do they mean when they say you need to have a research impact? Is this the latest new political, national, or governmental fad? On top of that, why is this suddenly so critically important, isn’t that in part to why we are here? Isn’t this what we have been trying to do all along, trying to make an impact? Are they trying to tell us we haven’t been making or don’t make a research impact? What type of research impact are they talking about? What am I supposed to do? I don’t understand this, so it’s obvious I will need some help. I talked to some of my other faculty colleagues about this and they feel the same way”.**

Faculty witnessed that what constituted research impact had a wide variety of meanings and definitions depending on the person, agency, funding body, university, tenure requirement, or country foci. It was stated by many faculty that - 1) not being able to approach others with a similar and basic comprehensive understanding of what does research impact mean throughout the Academy and - 2) not being supported towards systematically accomplishing all aspects of research impact by their Academic institutions was a problem.

In other words, **having an inclusive working ARI definition and understanding as well as being**

**institutionally supported in a comprehensive fashion concerning ARI appeared to be of high importance for faculty.** This was the case irrespective to different agency, person, or entity specific ARI foci.

In parallel with the above comments made, faculty stated that they wondered if the impact agenda was being intelligently coordinated across agency, organizational, institutional, and country domains to have the maximal impact? **Faculty also asked what's the strategy for after impact, especially the External impact?**

Answering all these questions extend well-beyond what is being covered in this article. However, all these comments and concerns had one thing in common. They all stemmed from faculty asking one question - what is a comprehensive definition and description of ARI?

## The ARI Conundrum

After listening to faculty share their ideas and opinions concerning this issue, I decided to delve into the literature. This was to determine if I could easily and quickly obtain a comprehensive understanding and definition of ARI.

This was important because much of the research impact conversation by those inside and outside of academic institutions were centered around research, faculty, and its activity as it related to the Academy. It was also important because I worked and planned to continue working with academic faculty, administrators, and students in research environments to manage, maximize, and accelerate their impact.

So engaging faculty in this way, in a construct tailored for the Academy seemed advantageous. **Furthermore, there appeared to be a disconnect between Academic institutions and faculty ideologies about what should be included as research impact and those advocating for and implementing policy to push the research impact agenda forward.**

Meaning that, while the term, research impact, is broader than ARI and would appear to be understood. In talking with faculty this term is not contextualized and comprehensive enough to: digest, communicate, and utilize across department, institutional, national, and international academic domains; be communicated to societal peers and collaborators; and offer an underlining platform for how to think and operate beyond specific funding bodies.

When I started my investigation into research impact in the context of the Academy, I have to admit, I thought that it would be easy to find a comprehensive definition and understanding of ARI. This was because I had already begun working in the academic impact space as an Impact Scholar, Practitioner, and Professional. As an Impact Professional now in industry, I have continued to provide impact services to individuals, faculty, and organizations.

But I was wrong! In short, finding and coming up with a scholarly-supported comprehensive definition of ARI was extremely difficult. This appeared to support the comments made by faculty pertaining to their questions and concerns with having to navigate through research impact both nationally and internationally.

## Exploring The Literature

I had to look through over a 100 gray and peer-reviewed articles, gray literature, plus numerous government funding and organizational documents to begin to get a comprehensive understanding of what ARI meant [1-17\*\*]. Yes, I did say over 100, and it seems like more information about some aspect of ARI is being generated every day.

What I learned during my investigation into the literature was that no one intentionally focused their efforts to provide a comprehensive definition of ARI. All literature emphasized research impact.

There were those who provided very specific types of impacts. For example, they provided definitions and descriptions to what they consider to be a policy, cultural, social, etc., impact [17].

Most of the literature discussed and described impact either from an Internal or External ARI perspective. This was done by employing many different types of quantitative and qualitative research traditions [1-17].

Some of those who defined research impact from an External perspective provided it in terms of what they were focused on as an impact [1]. Many used definitions from governing bodies and organizations that provided research funding [1,9]. There were others who discussed research impact but never defined it [1].

Most of the literature, research on, and definitions of research impact from the External perspective came from individuals and organizations based outside of the United States (US), e.g. United Kingdom (UK), Australia, and Canada, [1-17]. Concurrently, I found that there were those who had come to many of these same above conclusions [1].

Among other things, many who described research impacts from an Internal perspective focused on impact factors of journals, published based academic activity, and research infrastructure. For example, I found many papers discussing bibliometrics and infrastructure in the context of research impact [5, 13], and (link).

There were only a few who appeared to described research impacts from both perspectives [1,7]. I have provided these definitions below. So far, these were the closest scholarly-supported comprehensive descriptions and definitions of ARI that I could find in the literature.

One of these came from an Impact Scholar in the US named [Jeremi London](#). London's definition of research impact is "a time-sensitive interpretation of the extent to which a series of interactions have led to incremental and transformative change in and beyond the context in which the change originated" [7].

Another definition which seemed to begin to embody both perspectives came from [Kristel Alla](#), [Wayne Hall](#), [Harvey Whiteford](#), [Brian Head](#), and [Carla Meurk](#) in Queensland, Australia. They defined research impact in the context of mental health. To make this definition more global than it currently is, one could easily replace the phrases related to mental health. One could also add more terms than what is provided, i.e. policy/practices.

Their definition of research impact is "a direct or indirect contribution of research processes or outputs that have informed (or resulted in) the development of new (mental) health policy/practices, or revisions of existing (mental) health policy/practices, at various levels of governance (international, national, state, local, organisational, health unit)" [1].

After going through this literature, I realized why providing a comprehensive definition of ARI was so elusive. The reason is because research impacts associated with the Academy can involve many factors [1-17].

In addition, finding, thinking through all the nuances of ARI, and utilizing new perspectives and traditions to come up with a comprehensive definition from the literature takes a substantial amount of time and effort. "This is time faculty just can't afford to spend" was a comment I heard and continue to hear repeatedly stated by faculty concerning the impact agenda.

## Responding to Faculty: A Working Comprehensive Definition of ARI

My analysis of the literature is still ongoing, but my current working comprehensive definition of ARI based off the literature and by combining Alla et.al., and London's definition can be found below. This definition also aligns in general with the ARI Ecosystem. **Note:** I consider what is being provided below to be a rather long definition. I am working with others to condense it. If you have any suggestions or comments, please email me at [info@research-impact-enterprises.com](mailto:info@research-impact-enterprises.com).

“Academic Research Impact (ARI) is a positive or negative immediate, future, or far future affect, effect, contribution to, or influence on a wide-range of topics, behavior, phenomena, individuals, communities, and systems that happen inside and outside the Academy as a result of academic research inputs, outputs, mid-, intermediate-, and long-term outcomes achieved through different types and intensities of engagement at any level involving a variety of people, stakeholders, and end users”.

Some of these affects, effects, contributions, or influences are harder to measure or evaluate than others. This is especially salient concerning the far-future aspects of ARI.

ARI happens in direct (physical and operational) and indirect (unintended) ways. In some of the impact literature this equates to ideals of contribution, conceptual, and instrumental research impact [1,3,8,10,15,16].

### **Academic Research Impact (ARI) in The Context of Research Impact (RI)**

This description of ARI also highlights a comprehensive definition of research impact. This can be achieved by removing the phrase “inside and outside of the Academy” and the word “academic” from the ARI definition provided above.

Suggesting that the comprehensive definition of “Research Impact (RI)” is a positive or negative immediate, future, or far future affect, effect, contribution to, or influence on a wide-range of topics, behavior, phenomena, individuals, communities, and systems that happen as a result of research inputs, outputs, mid-, intermediate-, and long-term outcomes achieved through different types and intensities of engagement at any level involving a variety of people, stakeholders, and end users”.

ARI represents a unique practiced and contextualized type of research impact with respect to the Academy. In the Academy research can and typically does include all forms of scholarship and creative activity.

There are other types such as non-academic non-profit research impact, industrial research impact, market research impact, etc., that have their own traditions. These other types also reside under the research impact umbrella.

### **Helping Faculty Maximize and Accelerate Their ARI**

Progression of the ARI phenomena tends to move from the Internal to the External. Many times, the line between Internal and External Impacts are blurred because both are needed to create and maintain a robust ARI Ecosystem in our Human, Societal, and Social Based (HSSB) systems.

This area of blurring represents a space where faculty can be engaged to be highly productive and have the most Internal and External ARI. This area centered between the Internal and External aspects of ARI is called Boundary-Domain Specific Impact (B-DSI).

The use of societal benefiting concepts like knowledge translation, broader impacts, valorization, knowledge mobilization, etc., are employed to help faculty and others enhance their work by prolonging the time spent operating in the B-DSI space. A detailed discussion of B-DSI will be provided at another time.

### **Quick Introduction to Impact Ecosystems and ARI Ecosystem Theory**

Human Impact Ecosystems, aka “Impact Ecosystems” are the culmination of interconnected networks of people and communities, their specific connections with other people, places, and things, how they all interact, and the anticipated and unanticipated results or influence perceived through those interactions in a particular unit of space (both physical and social) and time. There are many different types of Impact Ecosystems and theories/models developed that support them. One of specific interest for this discussion is called the ARI Ecosystem.

The ARI Ecosystem is a combination and culmination of individuals and organizations in or in proximity to the Academy, its research, and the accompanying and resulting impacts. The theory/model that supports the ARI Ecosystem is called ARI Ecosystem Theory in Figure 2.

ARI Ecosystem theory is a way to begin to describe an ecosystem-based working philosophy and model on what things to consider when thinking about ARI Management, predicting system to individual-level research impact behavior, planning ARI, ARI Accountability, and characterizing how ARI progresses at an individual, micro-, meso-, and macro-level by combining:

- (1) Installation Theory – A synthetic theory to explain how humans construct systems that support and format individual behavior, by [Dr. Saadi Lahlou](#). Here is a [link to his book](#),
- (2) Theory of Change (TOC),
- (3) Logic models, and
- (4) The concept of Chaperones and
- (5) Comprehensive ARI definition

**Note:** There are many layers to the ARI Ecosystem model provided in Figure 2. This is an overview of the ARI Ecosystem. Full details will be provided on this ecosystem and theory/model in a scholarly manuscript.

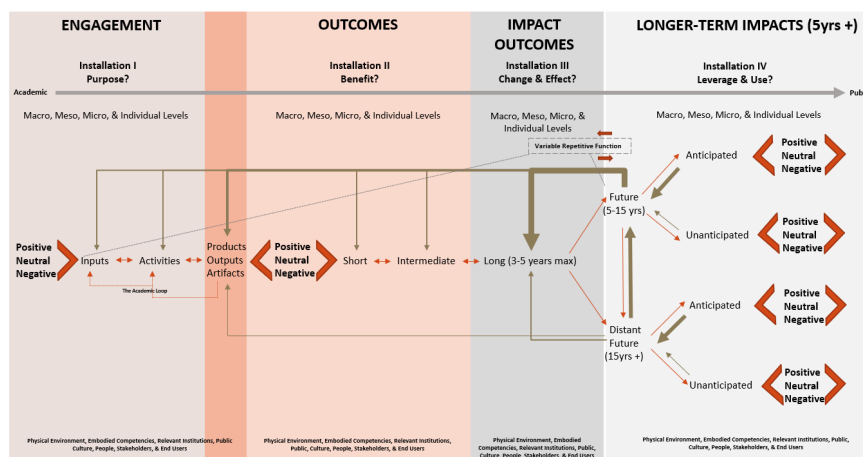


Figure 2: Introduction to the ARI Ecosystem Model and Theory

## Moving Forward

Even though only the first of these four factors have been discussed, it is already clear that issues surrounding ARI, whether Internal or External (commonly called research impact) need more attention. I have started to address the initial question about what research impact stemming from the Academy comprehensively is.

It has become apparent from my conversations with faculty that academic institutions, faculty, governance boards, agencies, and Impact Professionals are not all speaking the same language. Creating a common understanding by establishing a common language among faculty and academic institutions is the first step.

So, I have used ARI instead of research impacts and academic impacts or other similar terms for the impacts of research associated with academia. This is combined with the understanding that all impacts stemming from research in the Academy is considered in practice and theory a research impact.

However, all varying types of impact may not be the specific type of research impact a local, state, national, or international body is looking to fund. Each funding entity or government body has its own funding agenda.

Impact is both an inanimate and animate construct. Among other characteristics, even though we tend to emphasize the positive aspect of impact it can also be negative. Therefore, a comprehensive definition of research impact in the Academy should reflect these features.

I have also taken this one step further and have begun to provide an ARI model/theory based on the literature. Faculty cannot be comprehensively and intelligently supported in ARI without institutional comprehension of the concept.

Based on current trends and environment, ARI strategy and implementation will become a critical component for increasing financial support and liquidity for faculty and institutions, respectively. This is because ARI will enable faculty and institutions to monetize their impact in new and varied ways beyond that of funding agencies and governmental units.

As someone who is concerned about all the above-mentioned issues, I am trying to do my part but I know that is not enough.

It is going to take a “Unified Us” to really move the proverbial “needle” in this area. Especially if: we are serious about empowering and equipping faculty to effectively participate in this changing global landscape towards all aspects of impact; catalyze a robust research impact culture; want to help faculty get support for their research; want to help keep our institutions financially stable; and help to play our part in benefiting society.

## References and Other Comments:

\* Academic research work can include scholarship and creative activity. Research takes many forms within the Academy depending on the field and its traditions.

\*\*A full reference list will be provided at another time. These references below are a subset of these documents.

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Michael Thompson, an Academic – Industry Impact Professional, is currently the Head of Research Impact Enterprises or RIE: A Metaprising Research Impact Accelerator for Academic on Institutions. RIE is the first hybrid non-profit like and academically-based business ecosystem entity that functions as a conduit and facilitator between the Academy and the Rest of Society. RIE achieves this by working in collaboration with others to provide initiatives, services, and products that help individuals, faculty, businesses, institutions, and other organized units manage, maximize, and accelerate their impact. [Click here](#) to be provided with an overview of how RIE works.

Before serving as Head of RIE, Michael was the Founding Director of the Broader Impacts in Research (BIR) organization, on the Senior Staff of the Office of the Vice President for Research (OVPR), member of the

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