

INTERVIEW

Helping Scientists: Increasing visibility and impact of research.

Short title	Helping Scientists: Increasing visibility and impact of research.
Long title	How to support scientists around the world in increasing the visibility and impact of their research?
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Author bios	Dr Tamika Heiden is the Principal of the Research Impact Academy. She has more than a decade of career experience as a researcher and research manager in the fields of health, sport and medical research that began with a sports science degree and a PhD in Biomechanics. She has a certification in Knowledge Translation from the University of Toronto, and from the International School on Research Impact. Tamika is an honorary research fellow at the Murdoch Children's Research Institute in Victoria, an Adjunct Research Fellow at the University of Western Australia, sits on the scientific committee for the Medical Research Foundation at Royal Perth Hospital, and has a formal partnership with SickKids Hospital in Toronto. Tamika's national and international work brings together researchers and research users to share, create and translate knowledge for the betterment of society. She has worked with many government and non-government organisations to facilitate high-level overviews and strategic thinking, particularly relevant to the Australian research funding landscape where she gave evidence to the Senate Committee enquiry for the Medical Research Future Fund.
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Date published	17 July 2019
DOI	10.5281/zenodo.3339160
Cite as (APA)	Heiden, T. (2019). How to support scientists around the world in increasing the visibility and impact of their research?. <i>Elephant in the Lab</i> . DOI: https://doi.org/10.5281/zenodo.3339160

You are offering workshops where researchers can learn how to achieve more impact with their work outside of academia. Why is this important?

I have been providing training on knowledge translation, otherwise known as impact pathways, and research impact for the last five years to build the capacity of researchers and research support staff.

There are several reasons why research impact skills and knowledge has become increasingly important over the last few years. Firstly, at the core of every researcher, there is a drive to discover new things, some of these are going to directly change a process or practice within society, others may guide conversations and thinking, whilst the fundamental research will shape what we know and drive future research directions that ultimately will result in impact. It is important to remember that even applied research often stemmed from a fundamental research focus.

The second reason that we are seeing impact becoming increasingly relevant is due to the increasing focus of nations and funders to assess the impacts or return on investment of research funding. The Research Excellence Framework impact assessment by the UK in 2014, was the exercise to assess research impact on a large scale. Prior to this assessment, there were some smaller attempts to look at how this type of measurement might be done, including the Research Quality Framework in Australia (2006).

Since the 2014 REF, many other countries have shifted to focus on a research impact agenda. In Australia, this has resulted in a government assessment of research impact and engagement of all universities, as well as the introduction of impact case studies, impact pathways and more detailed descriptions of the benefits of research beyond academia, retrospective and prospective, within the grant rounds of our major funding bodies.

As these measures become increasingly popular around the globe, it is important to raise awareness and build capabilities to create, capture and measure the impact of research. The future of research funding and promotion and tenure is changing and in many cases has already changed, and we need to support researchers to meet these changing demands and continue to thrive in their careers so that they can change the world.

How are these workshops designed and what are the most important skills that you try to teach?

It is important to note that there are three groups of researchers, thinking about them in this way has helped me to frame my workshops in ways that are more palatable and thus more helpful to researchers. The first of these groups are those researchers that like me want to do work that changes the world in some way. The second of these groups are those that would like to make a name for themselves in some way, be it winning awards and making groundbreaking discoveries. The third group are those that are inquisitive, they love research, and they want to keep looking for answers, crunching numbers, examining data and finding patterns. There is no wrong type of researcher; it is just easier to work with the first two categories, as they are more open to the idea of creating and measuring the impact of their research.

My workshops are designed to highlight the theory and show the practical activities needed to create and capture impact. When it comes to theory, researchers need to know where to access more information and how to interpret the many and varied models, but time is a valuable commodity, and it is important to use time in training as time both learning and doing.

The pathway to impact is complex. Given this, my training and workshops cover a multitude of areas within the impact pathway, including the overarching elements in impact planning; the intricacies of stakeholders selection, engagement and management; the development, translation and implementation of outputs; and capturing and evidencing impacts. My workshops differ to those of others. I use a unique approach to how we undertake impact creation activities. Specifically, I have introduced entrepreneurial thinking in the form of understanding elements of strategic partnerships, customer (user) preferences and wants, behavioural elements of communication, marketing strategies and how to influence decision making, in the same way, you would work with a potential business partner or customer to have an impact.

Ultimately, the workshops are introducing and teaching researchers the soft skills so that the research will have a greater influence.

There are a couple of vital elements to impact, one is that as my esteemed colleague Dr David Phipps would say, "research is measured at the level of the user", the other is that the use or uptake of research knowledge is more successful when that knowledge is co-produced with the potential user or users of that knowledge. This means that understanding impact is to understand not only process and measures but to understand people, behaviour, personalities, bureaucracies, and context of the user environment.

Academic knowledge can be useful for different societal stakeholders e.g. political decision-makers, civil society activists, entrepreneurs. What are the main differences that need to be taken into account when "translating" knowledge for these groups?

It is essential to consider how your knowledge fits with other knowledge. Academic knowledge that has not been adapted is only relevant to other academics. Knowledge needs to be fitted to contexts, adapted accordingly and framed into messages relevant to the user, simply telling people about your research findings and providing it in academic format will be of little value to a non-academic user.

When working with any different group, there is a need to appreciate the diverse knowledge and world views they hold, as well as the context in which they operate. An understanding of the user is made easier through integrated knowledge translation, where researchers and research users work together in developing the research questions and considering the roles of all parties from the beginning of the research process. When translating any knowledge it is important to consider the wants and needs of the audience. As an example, business and industry will be focused on budgets, board requirements, etc., whereas policymakers will have competing demands whereby they have a focus on specific topics at specific times. There is no one size fits all approach to translation. If you have worked with the users from the beginning, then you will have had the opportunity to discuss the types of deliverables or mechanisms for translating the knowledge that will best suit their needs.

Importantly, academics must consider, acknowledge and understand the differences in timelines and reward mechanisms of those in industry and government.

How can researchers from countries outside of predominant scientific powerhouses (Western countries) achieve impact with their work beyond national and regional borders?

To enact changes and achieve impact beyond national and regional borders, we need to consider the step changes required to move knowledge and other research outputs to the next user. There are many next-users of research, and we need to start small, develop sustainable models and then expand the changes to reach other regions. A question that is often raised about this "what is the role of the researcher in creating this greater change, where does the research process begin and end?" This is why next-users are vital.

I use the analogy of passing the baton as if running a relay. The baton, in this case, symbolises the product of the research, be it knowledge, policy, guideline, and so on. The person receiving the baton is the immediate next user. It is important for this user to know what the baton looks like, when you will be handing it over, and what to do with it once they have taken it. If the baton gets dropped, evidence not used, we don't have an impact.

Working successfully with the next user is all about trust. If you have good relationships and collaborations that span borders, then you can more easily achieve those broader impacts. Consider the non-academic partners or stakeholders, what is their reach beyond those borders, do they have a network in which to share the evidence for uptake more broadly?

I think something important to consider is not only the time it takes for something to have an impact beyond a particular region but that the context within those regions will be different and therefore more studies and evidence may be required as the provided solutions may not be completely relevant or even adaptable within different regions or countries. In fact, in some circumstances, it can be wrong to assume that the regions are the same, or that one region believes they are the same as another. An example is that of Sprinkles, a project looking at home fortification of food to avoid nutritional anaemia and improve the health and wellbeing of children in African Nations. This research originally ran out of the Hospital for Sick Children and focused on Ghana. However, it was soon seen as an opportunity to help children in other nations. What they found was that even if another country or region were similar to Ghana, they would not accept the findings until it had been researched and tested within their own region, making the implementation of evidence-based interventions across borders all more difficult and complex.

How can we enrich a fruitful international research collaboration in order to address global challenges as climate change or the migration crisis?

This is a big and important question. We must consider the value of global networks that focus on and support the collaborative efforts in addressing global challenges. Great international collaborations are happening, but we need more of these to tackle the big issues that you raise in this question.

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There are of course ways in which we can approach this with collaborations, however, research funding is a competitive process, and that is itself can go against individual groups or different countries wanting to, or being able to afford to collaborate. We need funders to encourage global collaborations and work together with other funders to ensure the effort is sustainable. Collaboration from key funders would not only create the resources required to support large collaborations but would alleviate the duplication of efforts that we often see in research. In addition, we need to support culture change amongst researchers and their institutions to share, connect and communicate broadly with others working on the same challenges.