

**Reviewers and Their Roles as Users/Producers**  
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## **Introduction**

Let's open my response by stating that I read scholarly literature for two different yet interconnected reasons. First, to keep informed of state-of-the-art research and academic insights. Second, to increase my understanding of "real world" science and research policy issues—an understanding that I use for actual and urgent policy dossiers.

I am a senior researcher working in a mission oriented public research institute, dedicated to science, technology and innovation policy. Stakeholder demands or needs, whether articulated clearly or implicitly, are important inputs for us. They serve as starting point, or focus, of our research. The need for state-of-the-art research is another requirement.

My specialties are societal impact and research evaluation. There is a growing concern from our stakeholders concerning these issues, as well as from (STS) scholars. Cozzens and Snoek identify a mismatch between current practices for the evaluation of impact and the concepts used by scholars (Cozzens and Snoek 2010). They identify a dominant, linear, concept of impact in evaluation practice, sometimes with a loop back to planning. They see a very different dominant concept of impact in the academic literature, of a network or system with many interactions. I recognize this mismatch in my daily work.

## **Translational Processes**

When reviewing the article by Conor Douglas et al (2014) I asked myself, as well as the authors, what lessons could be learned from a policy point of view. I realised that a potential contribution was hidden that the authors had not yet identified. This refers not so much to the scientific contribution, as to the contribution to other users in the field of research policy. The cases presented in the article provide a clear insight into translational processes. An insight that is much needed.

In the introduction, Douglas cites an article in which it was suggested that in order to "increase the likelihood of societal benefit from academic research, a combination of policies should be considered, including a system for reporting broader impacts and collaborating with users to help identify the potential utility of research proposals." (Roberts 2009, 217) Note that Roberts specifically refers to policy issues. I think it is a big step forward to consider a combination of policies. However, it is my firm belief that more is needed. It is of utmost importance to understand the processes that lead to societal benefits. And to translate this understanding in such a way that it can be used in science policy. So that policies, reporting systems, or evaluation approaches are based on evidence and insight, and not so much on presumptions. Douglas argues in his article for a more nuanced understanding of translational pathways and focuses on the process rather than the outcomes. I welcome this contribution. The importance of the close study of types of productive interactions (Spaapen and Van Drooge 2011) is of importance, since little is known about these processes.

The article by Douglas et al contains an analysis of three related, yet different cases, of translational science in the field of pathogenomics of innate immunity. The focus is on the roles of users/producers, who are involved in collaboration, yet do not belong to the core group of academics studied—staff of a spin-off company, a clinician-scientist (with a double appointment) and researchers from a different academic field (scientific non-peer). I think the precise observations and analysis of the interactions of the user/producers, in combination with the fact that three cases are different yet related, are promising.

The authors explicitly state that: “Our research is amongst the first to explore multiple cases and forms of translational together in a single paper” (15). They continue with “our work underscores the fact that translation can take multiple and varied paths” (15) and are even willing to recommend “(t)his diversity needs to be recognized by policy-makers and funders who want to encourage and accordingly evaluate all forms of translation” (15). I would even suggest that the diversity needs to be recognized by researchers themselves as well. It is our experience that researchers are not always aware of the process of, or their role in, the creation of impact (Spaapen and Van Drooge, 2011).

In our current research, we have observed that translational research, collaboration or societal impact is often not an explicit goal, but merely an organisational aspect of the research process. This is quite an important issue, since the separate question in evaluation, funding or research strategy “how about societal impact/valorisation/knowledge utilisation” is often misunderstood. It might refer to the translational processes that Douglas et al show with great detail. And I want to emphasize that this translational process goes far beyond promising a distant future use or identifying a potential stakeholder, it is about active roles and actual processes. However, if one is not aware of the importance of this aspect, it might and will be overlooked.

### **The Role of the Bioinformaticians**

There is another aspect of importance in the article. That is the specific role of the bioinformaticians in what is called the civic case study. In this case, it is clearly shown how bioinformaticians played an important role translating and combining research results, data from public databases and other scientists’ needs. As a result, the bioinformaticians created an effective tool that served far more than the innate immunologists’ needs. A tool that is also used for systems-level analyses. As we have argued in Spaapen and Van Drooge (2011), academic non-peers sometimes do play a major role in translation, however, they are often excluded when it comes to social impact. Which implies that this type of impact will most likely not be recognized at all. I prefer the term “academic non-peer” for this case study, since the academic non-peer community is the first to benefit from the work of the bioinformaticians.

A final aspect I’d like to stress is the role of the clinician-scientists. Douglas shows the importance of a double appointment in the case of a clinician-scientist moving between the bedside of a patient with a rare immunological disorder, the bench in the lab where samples of the patient are analysed and where the disease is diagnosed based on a recent scientific publication, and back to the bedside, where treatment is informed and a

diagnostic tool is developed. This active hybrid role has been identified decades ago (for instance Van Steijn, 1990) but is often neglected nowadays.

## Conclusion

To come back to my main issue, the contribution of the paper and the relevance for use in research policy. The clear illustration of the diversity of translational paths, the impact on the scientific non-peer community and the role of double appointments are important aspects of the article. By reviewing the article, I too have been offered the role of user/producer. And I happily made use of it, by bringing the policy issues under the attention of the authors and by ensuring that these aspects are clearly presented in the article.

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## References

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