Author’s response to reviews

Title: Modeling the Technology Innovation Process: How the implementation of science, engineering and industry methods combine to generate beneficial socio-economic impacts.

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Author’s response to reviews: see over
The attached revised manuscript addresses the following comment from Professor Michel Wensing on behalf of the editorial board: ‘This paper concerns Implementation science, but pays only lip service to health and healthcare. Thus I am not sure that it is within scope. Simply adding more references and examples from healthcare could solve the problem, but as it stands this paper fits better in a general journal concerning science and policy.’

The revisions to the abstract, introduction and discussion (track changes mode) include statements and citations regarding the article’s direct relevance to healthcare technology. The examples in the body of the document were already relevant to healthcare based on the author’s experience in assistive technologies. We concur with Dr. Wensing’s observation that the paper is also relevant to science and policy in general, so I will explain why it is deliberately submitted to Implementation Science. The submitted work comes from a national center funded by the U.S. Department of Education. The Center on Knowledge Translation for Technology Transfer is charged with creating and disseminating materials to improve the dual processes of KT and TT, particularly for the field of assistive technology for the disabled and for healthcare technology more broadly. However, we recognize that the models, methods and metrics we are addressing are relevant even beyond to all fields of science and technology innovation. Our experience taught us that overtly limiting the intended scope of a paper can artificially limit the potential audience, discourage access by professionals in other fields, and thereby reduce the absorbability of the content. In the spirit of implementing science we hope this manuscript is relevant to the core audience while staying open and relevant to other readers.

This article is one of a series that we are preparing for submission to Implementation Science. The “Translating Three States of Knowledge” paper (Lane & Flagg, 2010), was well received, and this current submission places that prior publication in a broader conceptual context. A companion paper published last week “Knowledge Value Mapping” (Lane & Rogers, 2011) explains how to access national organizations to communicate research findings to multiple stakeholders. Again, immediately relevant to healthcare yet not limited to it. We are currently preparing a manuscript on the “Need to Knowledge” model which is an evidence-based approach for implementing knowledge in the three states described in the 2010 paper, and it is an operational framework for accomplishing what is presented in the current conceptual paper under consideration for review. Later in 2011, we plan to submit a series of manuscripts on recently completed RCT’s and instrument creation/validation – all related to the same issues of implementing technology-based science through research, development and production methods. We hope the material’s relevance to broader audiences does not preclude its publication within Implementation Science.

We are indeed publishing related papers in other journals. However, submitting a “body of work” to Implementation Science will give audiences free and open access to a one-stop source of related material. We hope the Editorial Board will grant us the latitude to pursue this approach. Of course, all submitted materials must pass the standards set forth by peer review. I would welcome any further discussion on our plan or this approach from your perspective.

Sincerely,

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