Author's response to reviews

Title: An empirically-derived approach for investigating Health Information Technology: the Elementally Entangled Organisational Communication (EEOC) framework

Authors:

Andrew Georgiou (a.georgiou@unsw.edu.au)
Johanna I Westbrook (j.westbrook@unsw.edu.au)
Jeffrey Braithwaite (j.braithwaite@unsw.edu.au)

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BioMed Central Editorial

Dear Editors,

**MS: 1646190243680155**
An empirically-derived approach for investigating Health Information Technology: the Elementally Entangled Organisational Communication (EEOC) framework

Thank you for the additional reviewer comments. In the following pages you will find our response and revision.

Yours faithfully,

Dr Andrew Georgiou
Senior Research Fellow
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<th>Reviewer 1 comments</th>
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<td>The article describes the paucity of health information technology (HIT) systems research that employs an explicit approach centered on organizational communication then offers and describes an elementally entangled organizational communication (EEOC) framework to frame and guide future HIT research. Three case studies involving the deployment of a laboratory information system (LIS) and computerized provider order entry (CPOE) are used to illustrate the dimensions of the proposed EEOC framework. This was my second review of the article. The authors have significantly revised the original article, improving both the review of existing literature on organizational communication in health care and frameworks related to the one presented. The article now provides a clearer justification for the proposed framework and more fully describes a) the framework’s relationship to the three case studies and b) potential uses by other researchers to frame organizational communication issues that arise during the implementation and adoption of HIT. Major Compulsory Revisions” None Minor Essential Revisions: The authors are cautioned against the stronger language used in the Conclusion to describe the use of the framework. For example, in the middle of the concluding paragraph, the authors assert the framework.</td>
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<td>We appreciate Reviewer 1’s comments and have revised the Conclusion in line with his recommendation. The adoption and successful implementation of HIT is not simply a matter of matching new technology to organisational need[75] and then proceeding to “roll-out” or “diffuse” the new system[88]. Such approaches ignore the mutual transformation of the organisation by the technology, and of the HIT system by the organisation[88]. This is an important consideration particularly given the dangers associated with the poor planning and implementation of HIT, and the potential for unintended adverse consequences[89, 90], workarounds (caused by situations when technology does not fit normal work flows)[38, 91], and risks to the quality and safety of patient care[92]. EEOC provides a theoretical lens which can be used to identify and frame important HIT implementation and adoption issues to inform administrators and planners. Healthcare innovation is a collective process which includes a myriad of actors, materials and stakeholders. As such, it is best to view innovation as a product of the complex interactions between the organisation, and key information and communication processes involving the new technology and its users[54]. Communication is a key constitutive factor in this process because it is part of a social interaction system directed toward a designated set of outcomes[93]. In this way theoretical representations such as the EEOC framework can be valuable tools to support the resolution of challenges associated with HIT-enabled innovation by providing rich sources of evidence to undertake future research, management planning and policy development.</td>
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can be used “...to identify and understand the causes of unintended consequences and help to manage and enhance the impact and safety of HIT implementations.” This language is overreaching. Softer language similar to that used in the Objective section, namely that the framework is a theoretical lens for the study of HIT implementation and adoption is much better. The reality is that it will be other researchers who “identify and understand” outcomes from research that is framed by an EEOC research. Moreover, the framework is not likely to be used by health care facility administrators to manage HIT implementations. The framework will instead likely be utilized by researchers to frame HIT implementation and adoption issues, which can be used by administrators.

In addition, the authors are asked to consider revising the final sentence to read “...theoretical representations such as the EEOC framework can be valuable tools to support the resolution of challenges associated with HIT-enabled innovation by providing rich sources...”

These subtle changes in language are highly recommended, and the authors are asked to consider them prior to final publication.”