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Striving for Research Impact: The Peculiar Case of the AIS Bright ICT Initiative

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ABSTRACT

The debate over the real-world impact of research continues in many applied disciplines, including ICT research. We propose that concepts from social informatics can be used to analyze and critique the visions put forward by ICT-based professional societies that are striving for more impactful and pro-social research. Using the recent case of the Association for Information Systems (AIS) ‘Bright ICT Initiative’, we seek to understand how a general desire for more social benefit and research impact translates into a specific problem definition (cybersecurity), and further translates into specific solutions (new internet protocols, a new global governance center). The analysis highlights the importance of interactions (or lack thereof) with other social worlds in the peculiar framing of this initiative.

Keywords

Research impact, social informatics, problematization, computerization movement.

INTRODUCTION

Many applied disciplines struggle with the question of real-world research impact, and the ICT (Information and Communication Technology) disciplines are no exception. In the Information Systems research literature, for example, calls for increased research impact are claimed to be in conflict with the goals of traditional, ‘rigorous’ academic research (e.g., Rosemann and Vessey, 2008). In other technical ICT disciplines, such as Computer Science, questions of research and social impact are more likely to be framed as ethical issues, for which education and codes of conduct are common responses (e.g., Anderson et al., 1993).

Another approach to generating real-world impact is to establish a ‘grand challenge’. With its roots in the Japanese government technology initiatives of the 1980s, the idea of a ‘grand challenge’ is to shape research by setting specific performance goals for a relevant engineering problem (e.g., Stefik, 1985). This approach is exemplified by the early DARPA contest to create an autonomous robotic vehicle.

As social informatics grows as a body of research, it will no doubt go through similar conversations about research impact. In the meantime, we propose that a social informatics approach can contribute to the research impact

debate by analyzing and critiquing the ‘grand challenge’ or ‘grand vision’ initiatives offered by ICT-based professional societies. These initiatives are likely to have the greatest immediate effect on research impact in the ICT disciplines.

Our research question in this paper is: how does an ICT-based professional society’s goal of more impactful and socially beneficial research translate into specific problem and solution definitions? Using the recent case of the Association for Information Systems (AIS) ‘Bright ICT Initiative’ (Lee, 2015), we seek to understand how a general desire for more social benefit and research impact translates into a specific problem definition (cybersecurity), and further translates into specific solutions (new internet protocols, a new global governance center). By subjecting this problematization process to a preliminary critical analysis, we hope to raise the question of whether these specific initiatives are the best choice for increasing research impact.

We use the concepts of problematization, translation, and computerization movements (e.g., Elliott and Kraemer, 2008) from the social informatics literature to analyze the case study. The analysis highlights the importance of interactions (or lack thereof) with other social worlds in the peculiar framing of this initiative.

LITERATURE REVIEW

Published calls to increase the real-world relevance of Information Systems research are common. We agree with the recent assessment in Rosemann and Vessey (2008), that there has been little progress in this literature beyond the framing of a tradeoff between ‘rigor’ vs. ‘relevance’, with solutions limited to calls for more interaction with practitioners either at the beginning or end of the research process.

We believe that the debate on relevance in management research has progressed further. We would particularly emphasize the argument in Hodgkinson and Rousseau (2009) and Van de Ven (2007) that disconnects between research and practice are best viewed as gaps between different social worlds that can only be bridged through true research collaborations, or partnerships. According to these arguments, research relevance requires more than asking practitioners for important research questions, or better

communication of results after the work is completed. Relevance requires changes in the conduct of the research itself, including theory formation and methodology, through collaborations that investigate what practitioners routinely do and believe (e.g., Sandberg and Tsoukas, 2011).

THEORETICAL CONCEPTS

In this study, we analyze an initiative to improve research relevance as a computerization movement, a concept with a rich history in social informatics research (e.g., Elliott and Kraemer, 2008). Within a computerization movement, we focus on two processes: how the main problem to be solved is collectively defined by the relevant parties ('problematization'), and how the problem definition becomes inscribed or written into the initiative itself in order to earn the commitment of different parties ('translation').

Computerization Movement

A computerization movement is a type of social movement organized around claims that an ICT will bring about a new and improved social order (Elliott and Kraemer, 2008). A computerization movement analysis traces the interactions between technological frames, public discourse (often utopian), and organizational practice and use over time in order to explain technology diffusion and investments.

Problematization

As in all social movements, computerization movements are, in part, defined by claims about problems in the world. How problems are framed have consequences for the activities they are able to pursue. For example, movements framed as broadly inclusive, with less specific problem statements, may grow more quickly initially, but then have greater challenges forming consensus around specific solutions.

The process of defining the key problem to be solved, or problematization, is at the heart of a computerization movement's technological frame. Drawing from the Social Construction of Technology (SCOT) literature, problematization has long been of interest in social informatics (e.g., Allen, 2004).

Translation

The translation concept, drawn from the Actor-Network Theory (ANT) tradition, focuses on how the interests of network participants are brought into alignment so that they will commit to a new actor-network. In the translation process, actor interests are inscribed into the artifacts that make up the network, so that the diverse elements of the network will behave together in an acceptable way (e.g., Wang et al., 2015). A general computerization movement to increase the social benefits of ICT research, in this case, becomes translated into specific forms (such as task forces, calls for papers) and specific topical content.

DATA AND METHODS

The method used in this research is a single case study, using pre-existing theoretical categories as sensitizing concepts. To understand the phenomena of creating an

initiative to increase ICT research impact, we have chosen the recent case of the 'Bright ICT Initiative' by the Association for Information Systems. A preliminary case study is appropriate for our analysis and critique of this initiative, as we seek to contribute to the debate early enough in the lifecycle of the debate to potentially change it. Besides offering a practical critique of this initiative's problem definition process, we also hope to contribute to new theory development in the study of research impact initiatives (e.g., Eisenhardt and Graebner, 2007).

The data for this preliminary study consists of every publicly available document about the initiative. These include the definition of the initiative, published as an MIS Quarterly editorial in June 2015 (Lee, 2015), an AIS press release (AIS, 2015), a book chapter (vom Brocke et al, 2015), three panel descriptions (from ECIS, ICIS, and AMCIS), and two slide presentations by the president and president-elect of AIS. The author also personally attended the initiatives panel at ICIS 2014.

BACKGROUND: THE AIS 'BRIGHT ICT INITIATIVE'

The formation of the 'Bright ICT' Initiative was officially announced in June 2015 by the Association for Information Systems (AIS), the main professional society for Information Systems academics. The initiative, described as a 'Grand Vision' project, began in 2014 with the formation of an initial task force of AIS members.

The description of the initiative notes that while ICTs have "made life and business more efficient and effective...many serious side effects have emerged...imperiling the foundation of future (*sic*) not only in a particular country, but also across borders." (AIS, 2015). By solving these 'side effects' of ICT, the AIS expects this initiative to "make IS research outcomes more available and significant for society" (AIS, 2015).

CASE ANALYSIS

Space limitations prevent us from sharing the full case study and analysis here. We can only briefly allude to a few interesting findings in the following section.

The Initiative as a Computerization Movement

The 'Bright ICT' initiative began with a broad and varied set of concerns. One concern, noted in the AIS president's slides, is for the society to increase its "Awareness in Industry", as part of its advocacy function. The first conference panel (ECIS), and the book chapter, both note the importance of increasing the social benefit of ICT research, and specifically refer to the UN Millennium Development goals, mentioning broad issues such as energy, climate change, healthcare, and the nature of work.

However, as the official description of the initiative argues, the first priority must be for the Internet to solve "the problems it has caused" such as 'cyber-crime' and 'cyber-terror'. The initial calls for papers, and later conference panels, list almost exclusively security and 'internet addiction' as relevant topics.

Two Problematic Steps

Our analysis breaks down the problematization into two steps. Step one is the definition of the initiative primarily in terms of security. The official description makes strong initial claims that the Internet has “become a minefield of crime, fakes, and terror perpetuated by anonymous users on a global scale” (Lee, 2015). By allowing anonymous behavior, the Internet has “become a chaotic superhighway without appropriate traffic lights or police” and “the new battlefield”. Step two of problematization is the further designation of two specific solutions as the goal of the initiative: the creation of new Internet protocols that will deter anonymous cyber-crime, and the formation of a new global internet governance center that will monitor all Internet traffic and enforce new regulations. These are the main problematization steps that need to be held up to critical scrutiny, and explained.

Translation to Specific Solutions

Participation in the initiative has been limited to senior AIS officers, and to a potential partnership with the International Telecommunication Union (ITU), an agency of the United Nations. Enrolling the participation of the ITU must be part of the explanation for the eagerness to put a new system of global surveillance at the heart of the ‘Bright ICT’ initiative.

We also argue that the translation of the research impact problem into a ‘grand challenge’ brings with it the need for solutions in the form of discrete engineering standards and performance goals. This would help explain the focus on seemingly techno-centric security problems, and a commitment to forming new technical standards, even without involving participants from any of the traditional social worlds that define Internet protocols.

None of the translation moves used in this initiative so far involve interacting with technical practitioners, people affected by ICT, or people in need of economic and social development. Those social worlds have been left out.

CONTRIBUTIONS AND CONCLUSION

Our main contribution is to demonstrate a constructive role that social informatics research can play in making research more impactful and socially positive. By critiquing the formation of this computerization movement, perhaps alternatives can be discussed before the actor-network becomes completely black-boxed.

Our conclusion is that a professional society needs to be very mindful of which social worlds are included in the collaboration when these visions are formed. This initiative defines weirdly peculiar problems and solutions as a way of

addressing broad issues of the social impact, and deserves further scrutiny.

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