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## Constructing the Value of Information Systems Research

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# Communications of the Association for Information Systems

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## Constructing the Value of Information Systems Research

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### Abstract:

Building on a social constructivist approach, this commentary examines the value of Information Systems (IS) research and its bearing on the future of the discipline in three steps as follows. First, it is argued that the product of IS scholars can serve as a proxy for IS research and that the subject matter of IS research should be examined through the people-information-technology framework. Second, it is argued that value is inherently a situated social construction and that ultimately the value of IS research is determined by its particular stakeholders. Third, it is argued that the stakeholders' appreciation and support can be fostered through grassroots collective action that aims to build a strong brand equity for IS research. In spite of the challenges ahead that stem from the current institutional position of the IS discipline and the prevailing work practices in the academia, the potential of IS scholarship can be realized if the members of the IS community will step forward and reframe the rules of the game.

**Keywords:** IS research domain; research value; future of IS scholarship; collective action

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### I. INTRODUCTION

The article "Value of Information Systems (IS) Research: Is there a Crisis" (Hassan, 2014) provides an opportunity for reflection upon the *raison d'être* of our work as individuals and as a community of scholars. In this article, Hassan suggested that the perceived value of IS research is the underlying source of the recurring waves of anxiety discourse among IS scholars. In principle, I would support this conjecture. We, the IS scholars, operate in an institutional environment and thereby our livelihood is dependent upon the way our stakeholders perceive the value of our work. The main stakeholders of IS research are public and private funding agencies, academic institutions, and students. So far, they have funded and consumed the products of our work under the presumption that it provides a certain value. The anxiety discourse among IS scholars is triggered any time the support from any of the stakeholders diminishes. This can be, for example, upon the shrinking of funding opportunities, the dismantling of IS departments, or the declining of enrollment in IS courses. Whether directly or indirectly, the extent of support for IS research from its stakeholders is dependent upon their perceived value thereof.

This conjecture led Hassan (2014) to pose the ultimate question: what is the value of IS research? Subsequently, the article examined the meaning of research value from various perspectives to set the stage for the paraphrased conclusion that value can be gained by generating research products that are original, meaningful, insightful, and have the potential to make a difference. At a glance, this conclusion sounds fine, but upon further reflection it makes one wonder whether this is an effective remedy for the recurring anxiety discourse among IS scholars.

It seems that Hassan (2014) posed the question about the value of IS research as a pretext to argue that only high quality IS research products would meet and perhaps exceed the returns expected by the stakeholder, and consequently would alleviate the longstanding crisis within the IS discipline. Although this assumption is quite plausible from a rational standpoint, it is also quite naïve in view of the governing forces at play. The issue at stake is not so much what the IS research product is, but how it is perceived by its stakeholders. In other words, just as with any intellectual property in the market of ideas, the value of IS research is a matter of perception and not necessarily a matter of meeting a certain set of quality criteria such as originality and the like. It is worth noting that I do not contend that research quality does not matter; I merely maintain that it is insufficient for generating a far reaching ingrained perception of high value among the respective stakeholders.

I would also argue that motivating the discussion of IS research value with a sense of crisis is counterproductive. One lesson that can be learned from over 30 years of talking time and again about the crisis in IS research is that the catharsis may help to mitigate the anxiety for a short while, but it fails to treat the root causes that drive the looming chasm between the actual and the desirable states of the IS discipline. The issue of concern should not be the chronic problems of the IS discipline and a respective prognosis of the day. Such a deficit based preoccupation has been proven to be ineffective and without merit. For a case in point, examine the poor outcome of virtually any of the various attempts to treat the crisis so far.

Instead, I suggest that we as a collective should focus on identifying what we strive for and resolving ways to fulfill these aspirations, building on our core capacities and drawing on our aptitudes. Constructing an affirmative image of the future has been shown to be the key to nurturing thriving cultures (Polak, 1973) and I would argue that it is also the key to nurturing communities of scholars (Avital et al, 2011.) Subsequently, I adopt in this commentary a strengths-based rhetoric and emphasize a positive stance toward the capacity of IS scholars to deliver valuable outputs that are appreciated by the stakeholders of IS research.

In spite of my critical tone with regard to the proposed treatment of Hassan (2014), I appreciate the analytical approach to the underlying issues that was laid down in the article and would like to build on it to address the value of IS research. Subsequently, let us deconstruct the question: "what is the value of IS research?" into three interrelated sub-questions, as follows:

- What is Information Systems research?
- How should we frame value in the context of Information Systems research?
- How might we foster stakeholders' appreciation for Information Systems research?

## II. WHAT IS INFORMATION SYSTEMS RESEARCH?

A prerequisite to any discussion of value is a clear determination of the subject matter under evaluation. However, given the multidisciplinary roots of IS research and its ubiquitous reach into almost all walks of life, the boundaries of the IS research body of knowledge are blurred, hard to depict, and consequently subject to unresolvable debate. Attempting to evaluate an amorphous body of knowledge is clearly prone to error and criticism.

Alternatively, Hassan (2014) proposed that the overall product of the community of IS scholars should serve as a proxy for IS research. This is an elegant way of cutting the apparent Gordian knot. Shifting the focus from the products of a scholarly discipline to the products of a community of scholars removes much of the fuzziness around the nature of the subject matter (i.e., what should be considered IS research, and what is not.) The focus on the community also underscores the social and the institutional aspects of the underlying issues, as already explored widely by others (e.g., King & Lyytinen, 2004). To that end, IS research is the product of the IS scholars' community that comprises the individuals who are affiliated at least in spirit with the Association for Information Systems (AIS), participate in its core and affiliated conferences, and aim to publish at least in part in the journals listed in the basket of eight (as well as the journals that could potentially be included in this list.) At least for now, the reference to AIS and its derivatives is the most appropriate indicator of membership in the IS community. Although membership in the IS scholars' community is open to all and self-selected, it is sensible only to those who are concerned with a subset of the range of topics of interest of the community at large.

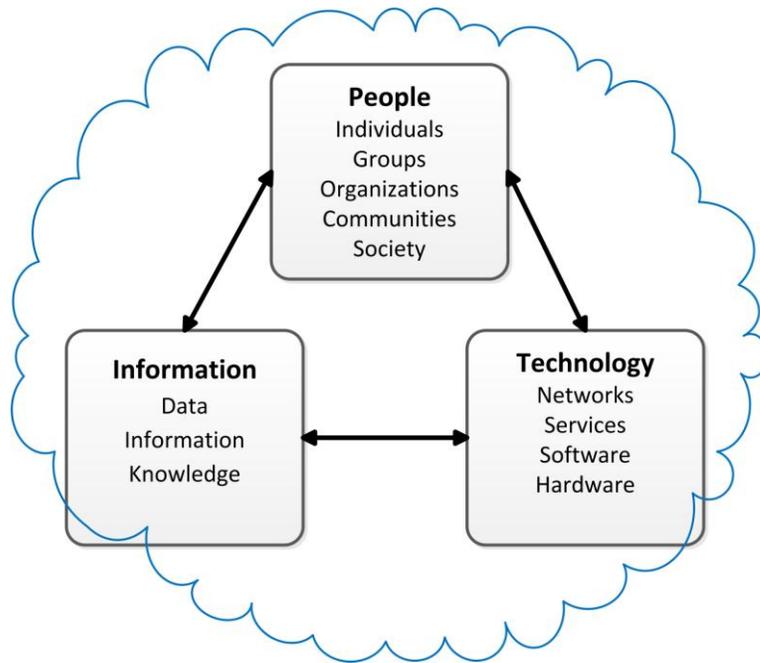
The operationalization of IS research as the product of IS scholars begs the ontological question: what is the domain of inquiry of IS scholars? Or paraphrasing Toulmin's (1972) conceptualization of a discipline, what genealogy of problems is addressed by IS scholars? In lieu of complex classification schemes that require continuous maintenance and have a limited utility (e.g., Ein-Dor & Segev, 1993), or narrowly-defined techno-centric approaches (e.g., Benbasat & Zmud, 2003), I suggest adopting the more abstract convention that IS scholars care about the interactions between people, information, and technology in all of its manifestations, as portrayed in the 'people-information-technology framework' (Figure 1.) In general, the label *people* refers to individuals, groups, organizations and society. *Information* refers to data, information and knowledge. And *technology* refers to networks, services, software and hardware. 'Interaction,' however, is an essential word in defining the IS research domain because overall, IS scholars do not focus solely on people or technology or information, but rather on the relationships between them. Among other things, IS scholars examine a wide range of possibilities afforded by new information and communication technologies and have a particular interest in how they enable a generation of triple bottom line value through creative designs, breakthrough innovation, and agile entrepreneurship. This is of course merely the tip of the iceberg and the list of possible research topics and potential contributions is recursive and thus limitless.

As Information Technology (IT) becomes ubiquitous, other communities of scholars are turning gradually toward IT-related issues. This is inevitable and should be seen as an opportunity to inform other disciplines as well as to enrich IS scholarship through interdisciplinary collaboration. However, it also means that we must differentiate ourselves and be explicit about our expertise and unique contribution. We must communicate a crisp, straightforward and coherent identity to the stakeholders of IS research. We should continue celebrating diversity in our internal discourse. Nonetheless, communicating an unequivocal identity to the external stakeholders at large will clear the fog surrounding the perceived value of IS research, solidify its disciplinary boundaries and protect our turf. Developing a crisp, straightforward and coherent identity that can be used by all IS scholars as a mantra is long overdue and perhaps it is one the most urgent tasks that the IS Senior Scholars forum ought to tackle right now.

## III. HOW SHOULD WE FRAME VALUE IN THE CONTEXT OF IS RESEARCH?

The definition of value is critical because it drives the scales of value assessment, and ultimately it differentiates between what is appreciated and fostered and what is ignored and discouraged. Framing value in the context of research has a significant effect on what kind of research is supported and what is not. Hassan (2014) offered – albeit with some reservations – three approaches to the assessment of value: means-ends analysis, extent of contribution to theory versus contribution to practice, and extent of significant value. Let us review their appropriateness in the context of IS research.

Whereas the assessment of value in terms of means to an end has an evident pragmatic utility, it is myopic in the context of academic research because it excludes, or at least deters, any form of exploratory research that by design has no predefined clear end. The history of science is paved with serendipitous discoveries and apparently impractical findings that turned out to be critical stepping stones to life-changing discoveries. Means-ends analysis is clearly not an appropriate framework for assessing IS research value.



**Figure 1. A Top Level View of the IS Research Domain: The People-Information-Technology Framework**

The distinction between basic and applied research is not relevant in the context of the IS scholars community. It may serve as a research problem selection mechanism in some research institutes that are partial to applied research, for example, due to funding constraints. It may also serve as a research problem selection mechanism in some particular communities of scholars that are partial to basic research: for example, theoretical physicists. However, this is not a relevant consideration in the context of most IS researchers, particularly those who work in business schools. There is no requirement to distinguish between basic and applied research (i.e., to select one at the expense of the other), and furthermore it is actually expected that researchers aim to address, to some degree, both research orientations. For a case in point, researchers are expected to discuss in their papers both contributions to knowledge and implications for practice. In other words, the prevailing norm requires both theoretical and applied contributions. The distinction between basic and applied research is clearly not an appropriate framework for addressing IS research value.

Finally, the criterion of the extent of significance is a step in the right direction. However, as presented by Hassan (2014), it falls short of specifying significance to whom, and how to qualify what is significant and what is not. Consistent with the earlier presumptions in this commentary, I posit that the value of IS research, i.e., the value of the product of IS scholars, is determined ultimately by the stakeholders of IS research. In other words, regardless of the rigor of our internal controls and work practices, the ultimate value of IS research is constructed and settled in the market of ideas based on the stakeholders' perceived value thereof. With that in mind, it is plausible that the extent of significance to the stakeholders may serve as an appropriate criterion for assessing IS research value.

However, given that the stakeholders of IS research comprise multiple constituencies, each with different and shifting needs, qualifying what is significant for them is not a trivial objective that can rely on a cookie-cutter approach. Moreover, the notion of research value is situated and context dependent. For example, as a faculty member at Copenhagen Business School, the main stakeholders of my research outputs are European and Danish funding agencies, the University, and to some degree the students. Determining what my stakeholders value requires analysis of the relevant open calls for funding, analysis of the strategic plan of the university and the internal incentive schemes, and analysis of the expectations of the student population. In my case, I have identified a clear appreciation for research that deals with issues that are relevant to the grand societal challenges of the time, research that examines the relationship between business and society, and research that has been published in prime journals.

**IV. HOW MIGHT WE FOSTER STAKEHOLDERS' APPRECIATION FOR IS RESEARCH?**

If we acknowledge that the value of IS research is determined ultimately by its situated stakeholders, there are two main approaches to gaining their appreciation and support. One way entails generating research products that

conform to and meet the explicit expectations of the stakeholders as described in the previous section. The other, more activist way, entails developing a strong brand and a halo effect that nurture a positive predisposition toward IS research. To that end, Hassan (2014) proposed that value can be gained and maintained by generating research products that are original, meaningful, insightful, and have the potential to make a difference. Although obviously these are desirable properties of any research product, I doubt that such a truism can serve as an effective guidance to fostering research value, because most IS scholars already do their best at various levels of success to follow this generic *modus operandi*.

Fostering stakeholders' appreciation for IS research requires unconventional collective effort that is likely to result in a stronger brand equity and a brighter halo effect. Subsequently, I suggest a two-forked<sup>1</sup> distributed campaign that would seek to accomplish the following:

- IS departments (or respective work units) should aim to develop internationally renowned centers of excellence that address issues of national or global public concern of the time. This is a major challenge given the prevailing individualistic work culture, the relatively small number of faculty members per host institution, and general lack of resources.
- IS departments should aim to fortify their position in the business school (or their respective institutional host) and actively search for ways to become the stewards of a primary discipline that is perceived locally as a foundational source of core knowledge which cannot be provided by faculty members from other departments (e.g., marketing, accounting, etc.) This too is a major challenge given the inferior position of the IS discipline in most business schools and given that most of our current theories stem from other reference disciplines.

Both objectives can be realized in spite of the challenges if the members of the IS community reframe the rules of the game. In lieu of maintaining the prevailing institutionally reinforced individualistic work practices that limit one's research scope and reach, (1) we should work in self-orchestrated research partnerships or collectives that can leverage economies of scale and economies of scope; (2) we should address research problems that relate to the grand challenges of the time with particular attention to local interests; (3) we should foster inter-group communication and exchange through wide-span networks of scholars; (4) we should cultivate grassroots initiatives and empower emergent leadership in the IS community through a distributed governance structure that can complement the activities of the professionally managed Association for Information Systems; and last but not least, (5) we should engage in a continuous and meaningful dialogue with our various stakeholders.

## V. CONCLUSION

Building on Hassan (2014), I discussed some key issues pertaining to the value of IS research. First, I examined the product of IS scholars as a proxy for IS research, and subsequently explored the domain of IS research through the people-information-technology framework. Second, I examined the appropriateness of prospective definitions of value in the context of IS research and concluded that ultimately the value of IS research is determined by its stakeholders. Third, I examined how we may foster stakeholders' appreciation and support of IS research and suggested a course of collective action that is likely to result in expanding the boundaries of the field, developing a stronger brand, and constructing a distinguished identity. All in all, I proposed that the IS community should abandon the prevailing lone scholar one-man band *modus operandi* and adopt instead a form of collective action. We should do what the human enterprise has done since the beginning: we should work together to get the work done.

I would like to end this commentary with the words of Woodrow Wilson, 28th President of the US and Nobel Peace Prize laureate, who said "You are not here to merely make a living. You are here to enable the world to live more amply, with greater vision and a finer spirit of hope and achievement. You are here to enrich the world and you impoverish yourself if you forget that errand."

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<sup>1</sup> I have excluded the treatment of students, our third key stakeholder, because they are concerned primarily with the learning experience and not so much with IS research.

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**Michel Avital** is Microsoft Chair and Professor of IT Management in Copenhagen Business School. Design and innovation are the leitmotif of Michel's work. Building on positive modalities of inquiry, his research focuses on information and organization with an emphasis on the social aspects of information technologies. He has published articles on topics such as generative design, creativity, innovation, collaboration, openness and big data. He is an editorial board member of seven leading IS journals and serves in various organizing capacities in ICIS, AOM, ECIS and other topical conferences. Michel is an advocate of openness and an avid proponent of cross-boundaries exchange and collaboration. Further information at <http://avital.net>

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