

Comments on "The discipline of information systems: Let many flowers bloom!" by D. E. Avison, J. Nandhakumar

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The paper gives an impressive, almost comprehensive survey on the research directions in Information Systems (IS) and on prominent approaches to IS development.

The following statement will concentrate on the latter topic and the proposed *Multiview* contingency approach, a framework claimed to contribute to the consolidation of diverse methodologies.

Without any doubt, IS is a pluralistic discipline. Fortunately, a great variety of approaches to IS and to IS development exist which can and should be taken as a source of inspiration. Hence indeed, many flowers bloom! But we can find, not surprisingly, a lot of weed interspersed with them.

Nobody serious would trample upon a beautiful flower in the IS research garden. The most crucial question is: which flowers are really beautiful, which IS design approaches are really good? The answer we heard is one from the academic world: any approach which can contribute to the serious treatment of a potentially important feature of an IS in an organisation. On the one hand, the prevailing attitude of IS researchers is to stick at those methodologies that they are acquainted with and that they have applied with predictable success, and to advocate them even in case they lead to moderate or oversimplified results. On the other hand, the value of a methodology must be substantiated by its theoretical soundness and its practical advantages; it cannot be postulated.

One issue of the report is to defend the academic IS garden against trampling barbars, but another even more important message is to point at the value of an interdisciplinary approach to the process of IS development in practice. This latter aspect raises a number of crucial questions:

From the practitioner's point of view, there is not one answer to what IS is a good one. Rather, this depends on the stakeholder's preferences. It might be development

cost including training, short delivery time, user friendliness of the IS, etc. Depending on the prevailing criteria, a contingency approach like *Multiview* may be too costly for an enterprise.

"There is no standard organisation where a standard information systems developing methodology will always be appropriate." This is undoubtedly true if the whole range of IS's is envisaged. But it may be possible to classify IS's such that the set of appropriate methodologies can be reduced considerably for a given IS class. This possibility should be investigated.

The authors use the terms "approach" and "methodology" almost as synonyms; they do not talk about "methods". This terminology reveals that these approaches still lack stability, rigour, experimental successes or user confidence to be effectively applied in practice. Only methods, i.e., with a sufficient maturity and equipped with a quite concrete user guide, are candidates for practical application. E.g., Enid Mumford's work fulfills these criteria with the result that user participation has become an indispensable ingredient of every reasonable IS design process.

Simplification must not be condemned per se. Due to the limited human capabilities, any progress in solving complex problems has to start with modelling. Models, by their very nature, are simplifications: they abstract from details of the modelled reality which are considered neglectable in a given context or development stage. Moreover, it is not always "reductionism" if practitioners adhere to a well-known but restricted method; rather they are trained to use it and are able to assess its outcome.

In the discussion of *Multiview* the authors emphasise to use methodologies critically, to adapt them to the application problem or even to omit them. This then is called "contingency". Taking this literally, each design process would inevitably become a research project. Not only meta-experts are required to decide which methodologies shall be taken into consideration, but also dedicated experts for each of the selected ones who are trained in their adaptive application. For both expert types, criteria must be established along which they make their decisions.

Finally, even if each particular stage of *Multiview* can be managed successfully, the critical question is how to wed the different methodologies and overcome their inconsistencies. This concerns not only the data collections assembled during the stages but also the languages of the involved experts originating in different disciplines. Hence, there is a need for harmony.

To summarize, the report gives a good overview of different approaches found in the literature, to contribute to the theory and the development of IS's. It presents a quite stimulating proposal to consider a number of rather diverse methodologies during the process of IS development. *Multiview* is a contingency framework, saying what should be looked at during this process. But it neither discusses the question how these methodologies can be consistently applied and which extra price has to be paid nor does it convincingly evidence that and in which respect the application of this framework leads to "better" results.