Foreword

During one of the visits that I made to KTH Stockholm recently, my hosts were so kind to show me of one the most visited museums in Scandinavia: the Vasa Museum. In a large ship hall stands the warship Vasa, the17th century ship that sank tragically at its maiden voyage on August 10, 1628, only after a few minutes of sailing.

Reflecting on the 40 years of history of Information Systems, I cannot help thinking of this disaster. Not that I would call this history itself a disaster in any sense. As the chapters in this book show as well, substantial progress has been made both in practice and on the research level. The contribution of the Scandinavian school of which Benkt Wangler is one representative, has been quite significant. We all know that one of the first theorists of information was Bjorn Langefors, who is famous for his infological equation that relates *and* distinguishes "data" and "information", $I = i (D, S, T)$, where I stands for information, D data, S the recipient prior knowledge as result of the individual's life experience, T the time, and i the interpretation process. Langefors defined an information system as "a technologically implemented medium for recording, storing, and disseminating linguistic expressions, as well as for drawing conclusions from such expressions". The Swedish IS tradition has always emphasized the essential human involvement in the information system.

In the early 70's, Ted Codd (IBM), Sjir Nijssen (Control Data), Peter Chen and others introduced and worked out the idea of data independence and, directly related to that, *conceptual modeling*. Conceptual modeling, using formal or semi-formal graphical representations, has been a successful innovation that has not only been adopted in various fields of Computer Science but also in some other disciplines.

Admittedly, the history of Information Systems so far had a high pioneering character, but it cannot be called as disaster. However, in the introduction of information systems in organizations, disasters, not as appealing as the Vasa but often with huge financial and organizational impact, have not been rare, unfortunately. To some extent, these disasters are the raison d'être for the discipline itself. What went wrong? What went wrong with the Vasa? A lot of ink has been written on this question.

Some blame the King Gustavus Adolphus who was anxious to acquire a ship as glorious as possible and demanded riskful changes in the original design. Similarly, the IS people have often been forced to deal with staggering expectations. We have also given rise to them ourselves. "MIS is a mirage" (John Dearden, 1972) was one of the first articles to expose this habit. There was and there will always be a need for healthy critical thinking.

Some blame the Dutch shipbuilder who built the hull too narrow. The problem was that in the 17th century there were no scientific methods of calculating a ship's stability. Instead shipbuilders used "reckonings" which recorded certain ship-measurements. However, the Vasa was much bigger than normal ships and so the usual reckonings did not apply. Similarly, many of the IS failures can be explained by the lack of good design theory and the temptation to apply methods beyond the realm in which they had been developed. According to IS researcher Roger Clark, "there is a predilection for 'reference frameworks', which is a pre-theoretic construct used as a means of organizing limited numbers of largely ad hoc observations or clusters of apparently interdependent variables, preparatory to conducting pilot studies". However, Clark does not want to be only negative about this. "The rate of change in the phenomena under study is sufficiently high that it can be argued that neither the paucity of established theories nor the prevalence of 'exploratory studies' and 'research frameworks' are defects: the IS discipline is in a permanent state of accumulating evidence about new and significantly changed phenomena, in order to enable existing theories to be adapted and new theories to be postulated" (Roger Clarke, 2006: A Retrospective on the Information Systems Discipline in Australia). Nevertheless, it would surely contribute to the maturity of the field when IS researchers would spend some more time and effort on evaluation research and on sharpening their validity criteria. One chapter in this book is about validating conceptual models.

According to a new theory, the captain of the Vasa was to blame by sailing right from the start with open gun ports. Similarly, in many cases IS disasters can be explained by pointing at the users, or, more generally, the insufficient attention to the alignment of the technical system and the social system. The Swedish socio-technical design approach, represented in several chapters of

this book, seeks to mitigate this risk by the direct participation of end-users in the information system design process.

Some blame Admiral Fleming who was in charge of the project and could have stopped the ship after the stability test that had been performed prior to the maiden voyage, a test that gave rather worrying results. Similarly, many IT projects suffer from lack of good management. Fortunately, Management of IT is an established field nowadays, although I do have the impression that still much more of industrial experience could be explored and accumulated in sound theory than is currently the case yet.

Perhaps the blame for the Vasa disaster is not to be given to any individual, but to the system in which they were caught, in which each actor just played its role. As such, this cautionary tale should remind us all never to stop thinking, to keep aware of the limitations of models and methods – technical and managerial — and never to reduce our human responsibility to role-playing.

According the Vasa Museum website, the ship is now surrounded by permanent exhibitions, cinemas, a shop and a restaurant. Here I see another parallel to developments in our field, but IS researchers who have been active in European projects and conference organizations, like Professor Wangler, will be able to work it out for themselves, I guess.

Paul Johannesson did a great job in bringing together an interesting collection of articles on modeling and design. I expect that this book will offer the reader many new insights and much reading pleasure.

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