

# Good Sociologists and Innovative Technologists or Real Amateurs

## What does IS have to offer?

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I have this afternoon decided to wear the thin disguising cloak of a proper social scientist through reading from a written manuscript and without using PowerPoint slides. An exciting new territory entirely, and I hope you will all manage to stay awake. My subject matter and position this afternoon is, however, entirely pragmatic, namely a brief account of a couple of challenges to the Information Systems field.

Honouring the occasion here today, I will just briefly recount the beginning of our first strategy day after Claudio assumed the position as convenor of Department of Information Systems where he delivered an opening statements something like this: *We must strive to **both** have a presence in the top academic journals within our field and at the same time influence the top-managers of large organisations.* The effect of this statement upon the audience was silence, sporadic coughing and a few raised eyebrows - no names mentioned Chrisanthi.

What Claudio of course articulated was the traditional tension within our field between seeking theoretical rigour through specialisation, reflection, introspection and the stubbornness of a pit bull terrier locking its jaw on a Streatham highstreet shopper, and the strong driving force to not only experiment in, but also help influence debates on, information systems practices beyond the academic sphere. Addressing both is in my view essential. Whilst most of the academic glory is bestowed those who follow rigour, then continuous innovation within our field rely critically on creatively maintaining ambiguity between theory and emerging socio-technical practices beyond internalised academic discourses.

As researchers within the Information Systems field we constantly, like Odysseus, navigate to steer clear to the two imminent dangers of the technological sea monster Scylla and the theoretical whirlpool Charybdis. Some of the current problems within our field can in my view clearly be linked to the dramatic changes we have witnessed. Let me illustrate. Bo Dahlbom & Lars Mathiassen wrote the following about the Information Systems profession under the heading "From Clocks to Our Time":

*In the fourteenth century it became high fashion for towns in Europe to invest in clockwork technology. The clocks were normally installed in church towers, to be seen all over town. They were built on the premises by clockwork makers, who usually stayed on to manage the clockwork maintenance, and in the process educate their sons in the trade.*

*Being a successful technology, clocks spread throughout Europe, turning clockwork makers into a powerful and respected profession. But the success of the technology encouraged its development, and gradually the technology changed its nature. Home clocks and personal clocks (watches) were introduced and became a great success. The sheer volume of production made the craftsmen obsolete, replacing them with an industrialized production process. Decentralized, widespread use of clocks turned the town clock into more of a symbolic than a functional artifact. Clocks are now more important than ever, but the clockwork professionals have vanished.*

*The parallels between the development of clockwork technology and computer technology are obvious, Bo and Lars continues. What do they tell us about the future of our profession? The clockwork professionals played a leading role in developing a technology that changed dramatically the life of Europeans, and indirectly the whole world. But as professionals they did not really participate in, or appreciate, that change. When the process they instigated was running at full force, it turned them out of business. Will we go the way of the clockwork professionals? Or, will we be able to actively influence the future of our profession?*

Bo & Lars wrote this in 1994 - 14 years ago. Just after SAP in 92 had released R/2 using client-server architecture, 3 years after Tim Berners-Lee had specified the first HTTP protocol, and also 3 years after Radiolinja in Finland had launched the first GSM network and around 1 million people across 48 countries were using digital mobile phones. Long before Google's Larry and Serg in 1996 geeked around with the first server at Stanford; it was before Jimbo's Wikipedia, before Microblogging, Bluesnarfing, happy slapping, Web 2.0, SaaS, mash-ups, before last year where 1/4 of the top-50 Japanese best-seller novels were authored on mobile phones, before Indian software firms began outsourcing development to China to keep costs down, and before 90% of South Koreans in their 20s joined Cyworld.

The Information Systems field was born in the era of Frank and Ralph Land fiddling with the LEO mainframe, that is, centralised computers running applications subjected to fairly homogenous patterns of use standardising and streamlining organisational back-office procedures. The chairman of IBM, Thomas Watson, famously stated in 1943; *"I think there is a world market for maybe five computers"*. The founder of DEC, Ken Olson, predicted in 1977 - when I began my A-levels - that *"there is no reason for any individual to have a computer in his home"*; and even Bill Gates' statement that *"Microsoft was founded with a vision of a computer on every desk, and in every home."* was met with deep commentator suspicion the late 70s. Mark Weiser saw the light in the 80s, and professed that each person would end up using many CPU's although he was slightly naive about how easy the relationship would be. I AM IN THE LIBRARY - anyone?

The use of computer technology is now better characterised by decentralised and embedded

appliances providing services to be used in heterogeneous (and idiosyncratic) ways by all walks of life for a broad range of purposes. The sources of IT innovation no longer resides deep inside argon-protected IT bunkers but just as much at the edges.

Digging a bit around of course still reveal plenty of mainframes in the 21st century, but as Nicholas Carr argues in his most recent book, *The Big Switch*, storage and computation is rapidly becoming an utility. Amazon S3 offers cloud-computing at 7 pence pr GigabyteMonth, and at 5 pence pr GigaByte data-transfer so there is no immediate need for start-ups to buy their own mainframe. Most companies worth their salt - recently LSE - outsource storage, networking, maintenance, and increasingly business processing. It would be tempting to argue that in such a scenario, IT does not matter - as Mr Carr has done previously. This is, however, not the case. IT matters more than ever before. It can provide the access to books through Amazon, availability of information through Google and Wikipedia, support people lending money to each other through Zopa, allow them to follow each others every move through Jaiku, or redefine mobile banking with MoniLink and M-PESA. How can IT not matter when the computer games industry rivals Hollywood, when teenagers nominate the mobile phone as their most important possession, and when I have to reboot my TV regularly so my daughter can watch *Nightgarden* before bedtime?

No wonder executives and consumers alike at times are a bit dizzy. Executives are faced with a multitude of challenges, for example, to increasingly manage the production of knowledge where this before largely was left to information workers themselves, and to desperately seek to guess increasingly idiosyncratic customer demands. Information technology plays an essential role in this and if we in the Information Systems field retain our cool calm and collected overview, I would argue we have a slight problem on our hands. Add to this the immense forces of globalisation fluiditising and distributing work across the globe, then there is plenty to study!

Our field derives much of its energy from the dynamics of technological development, and as such an important question is to what extent this should shape our academic discourse. How do others judge us and how much should we care about this? People regularly expect that I will be able to convince the printer drivers on their Windows XP of the errors of their ways, as this clearly must be what I do for a living! The question is then to what extent we need to let our identity and practices be influenced by external factors? Well, if we are highly successful and our skills and knowledge are coveted then we can do what we want. However, if we are in a position where we need to justify our importance, then we perhaps have less freedom.

This brings me to ask the simple question; who are our customers? Again, in times of joy and superfluous resources, we can afford to concentrate the risk and carefully choose the one desirable customer - a rich benefactor with a deep wallet supporting worthy causes. However, in leaner times, perhaps we need to diversify our risks by diverting our attention to a range of customers? RAE versus fee-paying students? The academic community versus society at large or commercial organisations? However, the dangers of accepting others defining our academic identity are plenty and severe. Will we be a happy bunch if convinced that we are computer scientists who can not program or social scientists with a strange hobby interest in technology? Information Systems is not a discipline with a strong theoretical core and easily suffers the curse

of multi-disciplinarity in academic systems rewarding disciplinary rigor. Personally, my career has been 20 years of attempts to make some contribution to the theoretical debate justifying that we are academics and not practitioners, while addressing problems of practical relevance. Finding the middle ground between being the nerdy technologist amongst social scientists and the wobbly softie amongst proper computer scientists easily attracts the rage of both camps but hiding inside the comfortable shell of either sides will in my view amount to surrender as our real legitimacy is to remain in the uneasy twilight zone where “proper” social scientists and hard-core computer scientists all shake their heads in despair.

In the current situation it would be tempting to conform to external pressures - imaginary or real. To become a bunch of slightly geeky management scientist. Kalle Lyytinen and John Leslie King explicitly warn against this in their 2004 MIS Quarterly article Reach and Grasp that, and I quote from the abstract:

*The short history of Information Systems suggests persistent anxiety about the field's purported lack of academic legitimacy. A common refrain in the anxiety discourse is that legitimacy can be obtained only by creating a strong theoretic core for the field. This essay takes exception with this view, attributing the anxiety to the field's relative youth, its focus on technology in a technophobic institutional environment, and academic ethnocentrism within and without the field. While developing stronger theory might be helpful, it is more important that the IS field pushes back against the hegemony of IS critics outside the field whose arguments masquerade as concerns about academic quality. The anxiety discourse should be replaced by the IS field's aggressive pursuit of new instructional and research opportunities that cross traditional institutional barriers and the pursuit of excellence on academic deemed important by the field itself.*

Here Claudio's research offer a shining example of an uncompromising struggle - one, which unfortunately was cut short by his early death.

In my humble view, one of our main contributions is to guide the world in the complexity of the socio-technical relationships without treating any of the two aspects as black boxes. Carr argues naively that IT does not matter, Friedman that it changes everything. We know better and will say so! Indeed, Claudio formulated much of this debate elegantly in the early 1990s. The question is if we will allow ourselves to matter. If IT doesn't matter, will we? If it turns out to be the the most important matter, will we have a say or will other more powerful players hijack the agenda?

Come back in 20 years when I will be staring retirement firmly in the eyes. When I see our intelligent and dynamic doctoral students I am very optimistic and proud but also worried that we may influence them too much!

Thank you for your time.