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A Coffee Shop Conversation: Socially Responsible Information Systems Research

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ABSTRACT

In which the author is party to a conversation about the nature of socially responsible information systems (IS) research. The dialogue takes the reader through the issues of what is meant by social responsibility, why this is an important issue in relation to IS research, and what social responsible research would entail. On the way issues about the nature of information systems, research and technology are explored in order to provide a framework within which to view IS research. In particular we discover that by viewing information systems as a holistic sociotechnical network it makes it easier to see how the goals of socially responsible IS research may be attained.

PREFACE

There have been a number of publications recently that are aimed at imbuing information systems personnel with a sense of social responsibility in the work that they do (Chadwick 2001; Dhillon 2002a; Stahl 2002). In this paper I wish to explore social responsibility in IS and in particular in IS research through the lens of sociotechnical systems. Having long been a fan of Douglas Hofstadter's (1980) book *Gödel, Escher Bach*, where he uses dialogue as a vehicle to explore many issues, I have also attempted to do this here feeling that it will allow me more flexibility in the exploration. Just how successful this is I will leave up to you, the reader, to judge.

Late September 2003. Our two protagonists are seated in a coffee shop, the smell of roasting coffee gently wafting through the room; a radio plays softly in the background. The early morning breakfast rush is over, there are few people left (which is probably just as well as the conversation is likely to get rather animated). Robin is sipping on an espresso whilst his friend Lucy has a skinny latte steaming gently in front of her. She is talking …

Lucy: So tell me Robin what are the particular issues that you are concerned about now that you have completed your recent investigation into the nature of information systems?

Robin: Well, I am not sure that I would say completed, more like taking a break from it all. As you may remember, last time we met I had settled on the view that information systems were best seen as complex amalgams of the social and technical. I thought that this might allow us to move away from the idea that society was being driven, for better or worse, by technology.

Lucy: Yes, I remember that day well! That was when I had too many of these excellent lattes and couldn't get to sleep. I was tossing and turning all night thinking about all the things we had discussed. I finally gave up trying to sleep and started reading that bizarre little book you lent me that day. You know the one by your favourite author Latour.

Robin (in the manner of someone who has been reminded of an old friend): Ah, yes *Aramis* (Latour 1996). What did you think of it?

Lucy: Well as I said I found it rather bizarre and I felt rather sorry for the poor engineering student who was thrown in at the deep-end working for that rather arrogant sociologist. But … perhaps worst of all was the fact that all these technological artefacts were given dialogue in the story as well. Very disturbing.

Robin: But surely you cannot deny that technologies do play a role in the shaping of our societies, remember how Bijker and Law (1992) see technologies as being mirrors of our society. We design and use our technologies to reflect the sorts of work and play we want to do … so why shouldn't technological artefacts be given a voice in stories about the failure or success of innovations?

Lucy: Well it just seems strange. They don't talk in real life. I nearly said interact but that is obviously not true. I remember how we discussed my mother's pacemaker. I would be worried sick if that stopped interacting with her.

Robin: But why only be willing to go halfway? After all, would you deny giving someone who has no English the right to speak?

Lucy: No.

Robin: What about my cousin who is unable to speak because of his illness? Or for that matter Stephen Hawking whose oral communication has long been mediated by technology?

Lucy (somewhat indignantly): No of course not!

Robin: Well why deny it to technologies which you have already acknowledged are deeply entwined in our lives?

Lucy: But, they don't talk in reality —

Robin: Yes, I know that. But they do play an active part in our world, our lives, our work. Do you think they can be ignored?

Lucy: Well, no.

Robin: So they have to appear in our stories about information systems and that is one way of doing it. I must admit I feel a little uncomfortable with the way Latour accomplishes it in Aramis.

Lucy: Just a little? That bit at the end where Aramis says goodbye …

Robin: That's just Latour taking poetic license a bit far … one of the reasons I think he wanted to do that was to test his ideas about story-telling, exploring the possibilities …

Lucy: Uh, huh.

Robin rummages around in the pile of books and papers on the table beside him. This coffee shop is one of his favourite writing haunts and he always comes prepared to do some work. He finally finds what he was looking for, a rumpled piece of a newspaper.

Robin (animatedly): But look, here, look at this. Surely it has to be better than writing like this. Just listen to this, "We're driven or forced into buying new gadgets and constantly upgrading our technology for any number of reasons" We're junkies. The whole tenor of the article is that we are hopelessly addicted to technology. The corporations and technologies own us. Look it says here, "no matter what pain we must endure during our indentured servitude and addiction to their problematic technologies" (Forno 2003) blah, blah, blah.

Lucy: Now that you put it like that. The language used is rather emotive and he does try to push a very strong ideological line. I do remember that last time we met we decided that people needed to make informed decisions about the way society adopts and uses technologies. Pushing a barrow like this is only likely to polarise opinion.

Robin: That's the important point! There is a blurring of boundaries between humans and technologies. The social and technical actors

are given an equal voice; something that Bruno Latour has long been urging us to do. In fact we no longer need to ask is this social? Or is it technical? Because in many ways technology can be seen as humans at work.

One of the big advantages of the sociotechnical approach is the fact that we move away from either overly optimistic or pessimistic views of the influence technology can have on our lives to the realization that we can exert an influence on these complex systems. We employ tools to do things but these tools are realizations of human interests, desires, relationships and policies which should be subjected to critical analysis with the aim of determining what the system ought to be not what it is. This in turn increases our ability to understand the moral, ethical and political aspects of IS.

Lucy: Yes, yes I see. We can become more responsible for the decisions we make.

Robin: Anyway you asked what I had been up to lately. And in a roundabout way I have been getting to it. I have been thinking a lot about what IS research is and what responsibilities an IS researcher has not only to the communities involved in the research but also how the results of that research are reported. I suppose you could say I have been thinking about socially responsible IS research.

Lucy: Why socially responsible research?

Robin: I guess the real stimulus was the fact that it struck me after a brief survey of recent publications in the field there was very little that had been said about socially responsible research. Do you remember my friend Gurpreet?

Lucy: Yes.

Robin: Well in a book he edited recently (Dhillon 2002a) he identified the themes of privacy and confidentiality, equitability of access to technology, property rights and ownership, freedom of speech and quality and reliability of information and related systems as being crucial aspects of social responsibility in the information age (Dhillon 2002b). No mention of research. I also looked at the proceedings of the last two IRMA conferences (Khosrow-pour 2002; Khosrow-pour 2003). They added education to the list but no mention of research. *The Concise Encyclopedia of the Ethics of New Technologies* (Chadwick 2001) wasn't much help either.

But I had a nagging feeling in the back of my mind that we as IS researchers should also appreciate and understand our responsibilities as IS researchers.

Lucy: Well yes. I think anyone involved with something that is becoming more and more pervasive in our society should be aware of the responsibilities involved in its usage.

Robin: It's not only that though. Sure, IS researchers have a responsibility to investigate aspects of the use of technology in the workplace but they also have to reveal the aspects of its design, the choices made, the short-comings and so on in an way that is intelligible to the wider population. But it is not only that, we also need to ensure that minority voices, those users who may be disadvantaged or ignored are heard as well.

Lucy: Um, yes. Just as that anthropologist, what was her name? Star, Lee Star. You remember the one who wrote about being allergic to onions and how difficult it was to buy a hamburger without any onions being on it or having been anywhere near it (Star 1991).

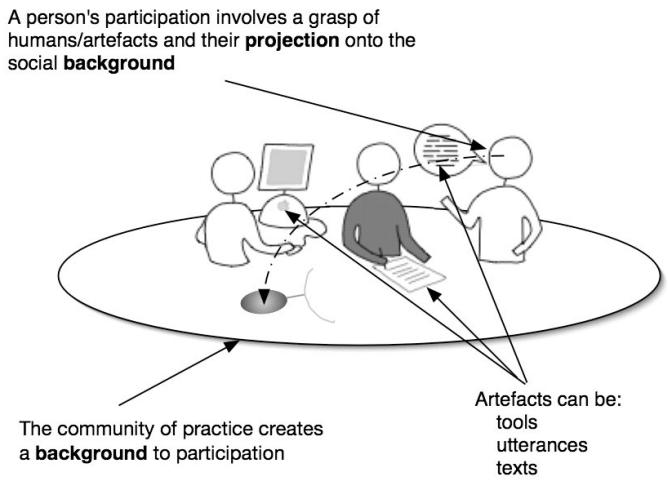
Robin: Exactly. But how we do this is one of the things we should come back to. I think that also socially responsible IS research would extend the notion of ethical research …

Lucy: So what would socially responsible research entail?

Robin: Well, why don't we take a step backwards? Let me find a piece of paper.

Once again Robin scrabbles around in the pile of papers beside him and produces some paper and a pencil. On it, he quickly draws the following picture (Figure 1).

Figure 1: The Interpretive Research Environment (after Packer 1999).



Robin: I found the original of this on the Internet. I think it really sums up the picture of the research environment quite nicely.

Lucy: Mmm … I see it uses Lave's (1988) ideas of a community of practice where she argues that the researching the actions or practices of people within their lived-in world will provide us the most powerful ideas about how social, spatial and temporal orderings occur in a given environment.

Robin: Yes. As you know, it is these very "every-day" practices of a sociotechnical environment that I am interested in. Now although Packer used this diagram as an "ontological blueprint for interpretive research" I think it provides us with a good idea of the interpretive research environment. Just the sort of thing I am interested in.

Lucy: Presumably, even though the researcher is not pictured they would be involved as part of the community of practice?

Robin: Ah, you just beat me to it. I was going to add that the researcher must be seen as part of this because they choose the site, gain access identify participants, ask questions observe, interpret and so on.

Lucy: So you think that to be a socially responsible researcher we need to see the researcher as: being part of the community, constructing the report, include the minority voices and … that would make for very complex project!

Robin: But we are describing a very complex situation.

Lucy: What are the benefits of such an approach?

Robin: In effect, this approach acknowledges the fact that information systems (IS) should be seen as complex networks of the social and the technical. In essence they are holistic systems where the researcher studies the relationships between the social and technical parts of such a system. Above all, perhaps, it is a means of moving from thinking of information systems as being dominated and determined by the technology to that of a people-centred domain.

Now, can you see what the benefits of such an approach would be?

Lucy: Um, well we should be able to understand conflicts that arise between stakeholders.

Robin: And …

Lucy: Well having done that it should be easier to manage the design and development of information systems so that these sources of conflict can be reduced. I think this could lead to a greater chance of system success.

Robin: Yes, that's what I think to. But we have to have some way of writing this up so that all the stakeholders can be part of the story. I think this might be where a narrative approach to the reporting of research may help.

Lucy: You mean telling it like a story? Sort of like the thing that Philip Gerard (1996) calls creative non-fiction?

Robin: I'm not familiar with that term.

Lucy: Gerard quite simply sees a narrative as an account "of people, events and ideas – a story", which may or may not be true (1996, p. 4). Creative non-fiction is his way of characterising the process of researching and creating stories of real-life. He asks us recognise the fact that these stories are in fact fictional to the extent that the author constructs them, shapes the storyline, the presentation. In other words interprets what has happened in the situation under investigation.

Robin: Well yes, I see that this is similar to what Horsfall (2001) says. She talks about using narrative methods as enabling us to organise our observations events within an organisation. We use our imagination and creativity to tell the story of what we and the participants feel is important and needs to be said. Others talk about narrative as being used to convey information that is more memorable, will possibly relate to personal experience, carry more weight and "be more likely to guide behaviour" (Swap, Leonard, Shields and Abrams 2001, p. 103).

Lucy: Mmm, that's right. And I can see how that could be seen as being more socially responsible. You are recognizing that the research report is a constructed entity and that it needs to give voice to the disadvantaged.

Robin: Exactly. That is what Latour and Woolgar (1986) illustrate in *Laboratory Life*. But listen to this …

Here Robin again reaches for his pile of books and papers. Withdrawing a slim purple volume he flips it open at a handily marked page and begins to read …

Robin: "Qualitative research using narrative methods enables researchers to place themselves at the interface between persons, stories, and organizations, and to place the person in emotional and organizational context" (Van Maanen, Manning and Miller 1998, p. v.).

Lucy: Hum, yes. So the researcher becomes part of the context, part of the community of practice.

Robin: That's right! They gain access to, but this may only be partial, the organizational culture, the knowledge of that community.

Lucy: Can you briefly describe how you became interested in this approach?

Robin: That is an interesting question and one that it is difficult to provide a short answer to.

I know that many years ago I was very much a believer in the benefits that technology could bring to mankind; that is I was what I now would call a technological positivist. Then I became increasingly disenchanted with the threats I saw technologies such as nuclear power stations, increasing environmental damage being caused by industrial waste and pollution by non-biodegradable consumer products. On top of all this, at that time there was growing talk about companies installing more computers and the subsequent loss of jobs this would cause. Classical technological determinist stuff.

Surely one didn't have to oscillate between being a pessimist or an optimist about technology? Several years ago I enrolled in a post-graduate degree where I was introduced to the ideas of the European sociologist of science and technology. People such as Callon, Law, Latour and Mol. This provided me with a way out of the impasse because it provided me with the tools to analyse the interactions between human and non-human artefacts and to see how the configurations that they formed could be influenced.

Although these methods resulted in a much more complex picture to be understood, and I believe much more difficult to write about concisely, it did enable me to see the power-plays, the interactions, the paths that the various participants had to follow, and the persuasion that had to be done before a sociotechnical network could be "black-boxed" and accepted as more or less a norm in society. I think if anyone has any doubts about the politics, the subterfuge, the role of economics, technologies and humans in the development of a system they would do well to read Tracy Kidder's *The Soul of a New Machine* (Kidder 1981).

Lucy: And the IS research stuff?

Robin: Well that perhaps follows from the fact that I see IS as being part of our web of culture and as such we are bound to understand how this web comes together. How it is shaped, the entities and relationships involved and just as importantly how the stories about this web are told.

Suddenly the figure of the proprietor looms over them. "Look I'm sorry to have to break-up this obviously engrossing conversation, but we would like to get on with cleaning the place up so that we can get home to our families and the football replay on T.V."

Lucy: Oh sorry Ned. We've done it again haven't we? It's a pity we haven't developed a robot to do the cleaning for you.

Ned (with a knowing smile): Well perhaps you need less talk and more practice …

Lucy and Robin get up from the table. Robin hurriedly crams his papers into an already over-stretched should-bag. He is still talking …

Robin: But I haven't told you about some of the ideas I have for this. The way it could be used to help make more ethical decisions as a community. There is this interesting paper by Janna Thompson (1994) …

Exeunt with voices fading into the roar of the traffic outside …

CONCLUSION

Lucy and Robin moved from a discussion of information systems as being complex collections of social and technical artefacts – human and non-human actors – if you will. Robin argues that technologies should be given an equal voice in reports of success and failure of information systems and then extended this to argue that this would be a factor in socially responsible information systems research.

What we, as researchers, must carefully consider is the way we talk about and report our research. We become, whether we like it not, particularly as interpretive qualitative researchers, part of the study that we undertake — either through the data collection process or during the interpretation and write-up stage.

If we are going to be innovative through IT then we must also be innovative in our IT/IS research. Socially responsible research I believe extends the notion of ethical research by encouraging researchers to consider: the nature of their research, the nature, desires, responsibilities of the subjects of their research, the responsibilities they as researchers have to the subjects of their research and how their research is reported. Some suggestions to how this might be done were made but there is still plenty of room for investigation. Especially in regards to how we can use these results to make ethical decisions. Perhaps as well as reading Kidder an interested researcher should also see Joseph Pitt's *Thinking About Technology: Foundations of the Philosophy of Technology* (Pitt 2000) which provides an easy to read introduction to many of these issues.

REFERENCES

References available on request.