

## Biology, Ethnography and STS: An interview with Christine Hine

Christine Hine, Attila Bruni, and Paolo Magaudda

**Abstract** Christine Hine talks with Tecnoscienza about her academic trajectory and passions, from botany and biology to her entry into the STS field. In this interview she comments on her most famous book (*Virtual Ethnography*) and her latest work (*Systematics as Cyberscience*) which traces linkages between science practice and knowledge, ICTS and biology. Going back to her first academic background as a natural scientist, Christine Hine also recalls her experience as past president of EASST and asked about what young STS scholars would nowadays need, emphasizes the absolute centrality of networking and collaborations to foster the field with new yeast.

**Keywords** biology; virtual ethnography; cyberscience; academic trajectory.

### Introduction

Assembling a special issue on the EASST010 conference, in the mood of reflecting on the state of the art of STS and their academic organization, we thought it would have been interesting having an interview with Christine Hine, Professor of Sociology of Science & Technology at the University of Surrey (UK).

Author of one of the most quoted books in the field of contemporary STS and past president of EASST, the name of Christine Hine is well known among STS scholars and in the interview we discuss her work (and academic trajectory) referring to her first and last book (namely, *Virtual Ethnography* and *Systematics as Cyberscience*). Moreover, we ask her to comment about her experience as EASST President and, on this basis, we take the chance to question the contemporary role and future strategies of STS, at a scientific and academic/professional level. Finally, we try to grasp a few (good) advices for young STS researchers.

Beside all this, interviewing Christine Hine has also a symbolic meaning for us. In 2008, when STS Italia was about to start its second national meeting, Christine (EASST President, at that time) contacted us saying that she saw the announcement of our conference, that she was impressed by its program, and that she

thought STS Italia could have been a good candidate for the organization of the EASST conference in 2010. Also during the organizing process of EASST010, although not in a 'presidential' role anymore, Christine has always been kind and supportive with us.

Thus, at a symbolic level, this interview is to acknowledge somehow the co-responsibility of Christine in the making of EASST010, as well as the importance for STS scholars of constantly looking for new collaborations, friendships and impeti.

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**TS:** *First of all, we would like to understand your scientific trajectory. You started as botanist, then moved to biology and then finally arrived to sociology and STS. You have already written this history, but can you say something more on that? One important passage is how you met the field of STS: who are the «open-minded sociologists» (to quote the Introduction of your last book) who helped you? And how did you start to develop your research on ICT and internet?*

**CH:** Certainly my academic trajectory is a little unusual, and although I do not regret any of it I am not sure I would recommend that anyone should set out to be quite so mobile across disciplines. I am sure it has left me with some gaping holes in my theoretical knowledge, and as a sociologist I think I will always lack the feeling that sociological theory is my native language because I learnt it so late in my intellectual development. Looking on the bright side, though, some of the scientific ways of thinking are quite "native" to me, and throughout various changes of direction I was always drawn to conversations about how we know what we know. That thread runs from early interests in the philosophy of science that I picked up as a scientist, through my move into STS and then my interest in the development of methods for understanding the Internet.

Starting out with botany was very much a reflection of my interests as a child. In school I was a bit of a botany geek, with my own collection of pressed plants and a shelf of old botany books: I was very clear at that point that I wanted to dissect plants and not animals so it had to be botany. I enjoyed a lot of my undergraduate studies but I was not a good laboratory scientist. I was happier with whole-plant studies, and with some of the more philosophical aspects of the study of naming and classification. I wish now that I would have made connection with the History and Philosophy of Science at Oxford, as some of my coursemates did – maybe I would have taken a different path. As it was, after my undergraduate degree I chose to do an MSc that acted as a conversion course to teach biologists about computing, with the aim of making us more employable in general, and feeding the emerging need for bioinformaticians. For a year after my MSc I worked at the Biological Records Centre, creating an atlas of moss distribution, but soon got restless and looked into the possibility of going back to further study.

I was lucky enough to gain a “quota” award for a PhD in the Biology Department at the University of York, which allowed me a fairly open scope to define my own field of study. This is a rare luxury for a funded student these days, and I think it gave me crucial time to open my mind to different ways of thinking about problems. Over the course of two years, I explored different ways of understanding the problems that biologists were having coping with the tensions between a scientific urge to have classifications schemes that were as meaningful as possible and the practical requirement to have stable names for organisms. I found an intriguing section in the University of York’s library, containing books about the sociology of scientific knowledge, and started to use those ideas to develop my thesis. Towards the end of this time my supervisor suggested I go and talk to someone he knew in another college who studied in this field – and that turned out to be Michael Mulkey. He was very kind, because I must have been extremely naïve, but he talked to me quite seriously about the prospects for a scientist moving into the sociology of science, and described for me the landscape of the field in Britain at the time. One of the groups he told me about was at Brunel University, and Steve Woolgar at Brunel subsequently took the risk of hiring me for a post-doctoral year, which turned into several years as grant funding followed and then a gradual move into lecturing in the Sociology. The Centre for Research into Innovation, Culture and Technology (CRICT) at Brunel University was a fabulous place to learn STS and I gained a huge amount from people that I met there.

**TS:** *Ok, now we would like to talk about your study of the Internet. The book “Virtual Ethnography” is a huge success (the book has 1350 quotations in Google Scholar... really huge): did you expect this when you published it? More generally speaking, could you tell us something about the ‘backstage’ of that book?*

**CH:** I will be honest here – the name came before the ideas. I knew that I wanted to write a book about Virtual Ethnography quite some time before I knew exactly what I wanted it to say. Up to this point my STS interests had been focused on the combination of information technology and biology, but here I started to have the confidence to move away from my original discipline and actually to write about sociological methods as well. I was granted a teaching-free semester by my Department, and the whole thing poured out over a six month period. Those were very heady days, full of excitement about the Internet and the ways that it might transform society. I suppose I felt quite troubled, as a new convert to STS, that here seemed to be a technology that we were being told actually was transforming society all on its own. As far as I understood STS, things were going to be more complicated than that. I tried very hard in that book to think through what an “STS sensibility” would bring to the Internet, and the upshot was the idea that we could embrace the prospect of the Internet being both a site for cultural dynamics and a cultural artefact at the same time. I was fortunate to be first in the queue with this kind of book. I am quite surprised actually that it continues to be cited and bought now, given how much the Internet has changed since 2000. I need to work on a sequel...

**TS:** *Let's turn to your last book, "Systematics as Cyberscience: Computers, Change and Continuity in Science". Here you discuss how computing affects the way scientists work and the kind of knowledge they produce, a somehow 'classic' topic in STS. In particular, you focus on systematics - the classification and naming of organisms and exploration of evolutionary relationships. It sounds like a return to your origins (you did the research in the same department of your undergraduate period) and at the same time a consequential development of your interest on ICT. Can you tell us something more about this research?*

**CH:** *Systematics as Cyberscience* is very much me coming home to my roots again. I never published my thesis – it simply was not good enough – but I think this is probably the book that I would like my thesis to have been. As part of the research I did go back and interview someone in the department where I had been an undergraduate, and the reference to “change and continuity” is heartfelt. I could see things that had stayed the same, but at the same time the change was radical. I think the book is very much a reflection of my interest in how the Internet seems to change everything but still they seem to stay recognisably the same, and my prior knowledge of biology gave me a starting point for working through exactly how that dynamic might play out in one particular context.

**TS:** *In a review of your last book appeared in the Journal "Leonardo", Amy Ione writes:*

*I was drawn to Christine Hine's Systematics as Cyberscience: Computers, Change, and Continuity in Science because the synopsis of the book suggested it was a study of the ways that biologists working in this field have engaged with new technologies as the field sustained its heritage and changed to accommodate new possibilities. While some information about research techniques and practices was included, I was disappointed to find that the book's concern was not with the practices that advance the field but, rather, the dynamics of the community as its tools change. More to the point, as Hine acknowledges in the final pages, the project paid "less attention to the detail of scientific practice and more to the varied sites in which the discipline [systematics] was manifested" (p. 260). As a result, in my view, Hine missed a real opportunity to educate the public in a meaningful sense about a field that is increasingly a part of the current ecological debates. In focusing on the discipline as a community, rather than on the change and continuity within the scientific practices employed, the book seemed more interested in the field's veneer than the substance of what the people who drive the field's accomplishments do.*

*Would you like to reply to this comment?*

**CH:** These are probably fair points – but this is not the book that I wrote. Because of my interests in the dynamics of change and continuity around the Internet, and my wish to explore its perplexing ambiguities, I did focus on what the Internet meant for the systematics community, rather than looking at their generation of classifications *per se*. I think Ione's proposal for a book sounds interesting,

and I would like to read it, but it is not one that I would write. However, I would reject the substance versus veneer distinction that Ione makes and I think many of the participants in projects that I described would do so too. It is really important to me that I did make points that at least some of the biologists concerned think are relevant and insightful. They do see as ICTs as intrinsically involved in the sustainability of their field as both scientifically credible and useful, and what Ione dismisses as “veneer” is immensely important to them. It has been really interesting since writing that book to be more closely involved in some biodiversity informatics projects in which the participants want to have a sociological input to help them in doing that work. I am not an impartial observer here.

**TS:** *Now we would like to ask you something about your experience as EASST President: how would you describe it? Did you have any particular commitment or general purpose?*

**CH:** Being EASST President was busy, enlightening, often stressful, and a bit like setting up a small pan-European business. I was, I felt, very bogged down with administration, since moving the presidency also involved moving the whole administrative and financial apparatus from the Netherlands to the UK and in many ways starting from scratch. I am really hoping that the changes Fred Steward and the current council are making to membership management will mean that the next President does not have these things to worry about, and can concentrate on being more strategic, and more outward looking that I was able to achieve. I think there is still a lot for EASST to do in forging links with other disciplines, and with policy makers and funders as a group rather than as individuals. But still, I think it is micro-level EASST – person-to-person - allowing people to meet each other and talk, that is still the most important thing about EASST. I agreed to take on the Presidency because EASST was very important to me when I started out in STS – it helped to feel that I was part of a community with an identity and a sense of history. My main idea as President was really to make sure that the structure was secure, and the conferences and workshops and reviews where people enacted that community continued to happen. I was quite concerned when people told me they saw EASST as a northern European organization so I did hope very much to bring an EASST conference to southern Europe and I was really delighted that the Trento conference came about.

**TS:** *How do you perceive the field of STS today? Somebody says there is an ‘impasse’ due to the lack of new perspectives and concepts; some others argue that STS should dialogue more with policy makers and private companies. What is your opinion? What about the transformations of British (and European) academy?*

**CH:** As I said just now, EASST, and STS, has a sense of identity and history, but I think sometimes that can turn against us if we become too respectful of our past and leave radical ways behind. Sometimes it can seem as though we are all doing similar kinds of study and citing the same set of canonical texts, and that is a

long way from the risky, dangerous kind of sociology of scientific knowledge that first attracted me. You start wondering what there is left to be done. But just when you start thinking in that pessimistic way a new text comes along that gives you a surprise and sends your theoretical thoughts off in a new direction, and these moments of surprise are all the more precious for the fact that you thought they could not happen any more. Annemarie Mol's work catches me that way, for example. So, I am not particularly looking for more engagement with policy or commerce, although plenty of that is happening and it is all to the good for a mature STS finding its way in the world. I am just hoping for some more great surprises. Sadly, I think the current funding climate, at least as I know it in the UK, makes it harder and harder for people to find spaces for that kind of work to happen.

*TS: At the end of this dialogue we would ask you if there is any particular (or general) advice you would give to a young STS researcher?*

**CH:** I think my advice to young STS researchers has to be that they should be aware that funding shapes so much of our lives as academics. Try to find ways to work with the constraints of what is fundable, to find your own sense of what you want to achieve, and within that try to be innovative, to be radical and to orient to the development of the field as much as to the policy impact or short term payoff.

**Christine Hine** University of Surrey  
Department of Sociology  
Guildford, Surrey, GU2 7XH - United Kingdom  
Email: c.hine@surrey.ac.uk

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**Attila Bruni** University of Trento  
Research Unit on Communication, Organizational Learning and Aesthetics  
Department of Sociology and Social Research  
Via Verdi, 26, 38122 Trento - Italy  
Email: anomalo@libero.it

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**Paolo Magaudda** University of Padova  
Pastis Research Group  
Department of Sociology  
Via M. Cesarotti 12, 35123, Padova - Italy  
Email: paolo.magaudda@unipd.it