

[0:00:00] Intro Music

Timothy Neale: Welcome to Technoscience. Podcast recorded at 2019 Society for the Social Studies of Science Annual Meeting in New Orleans. Produced by Timothy Neale

Laura Foster: and Laura Foster. This podcast is a new initiative to share the exciting work being done in Science and Technology Studies, or STS, with wider audiences who are curious about the field. It's here to offer an approachable way to learn more about this interdisciplinary and engaged field.

Timothy Neale: Before we begin, we would like to acknowledge that this podcast was recorded on unceded Indigenous land. We recognize the first peoples of Louisiana including the Chitimacha tribe, Coushatta Tribe, the Jena Band of Choctaw Indians, and the Tunica-Biloxi Indian Tribe.

[0:00:52] **Laura Foster:** In this podcast series, you'll hear interviews with STS scholars about a range of issues including what the field means to them, some of its big debates, and what its future yet might be.

Timothy Neale: To quote the feminist philosopher Donna Haraway, "Technology is not neutral. We are inside of what we make and it's inside of us. We're living in a world of connections and it matters which ones get made and unmade."

[0:01:17] **Laura Foster:** With those guiding words, let's go to this episode's interview.

Intro Music

[01:23] **Aadita Chaudhury:** Hello, I am Aadita Chaudhury. I am a PhD candidate in Science and Technology Studies at York University and a student representative at the Society for Social Studies of Science. Today I'm with Ulrike Felt. She is a full professor of Science and Technology Studies at the University of Vienna. Thank you for being here!

[01:44] **Ulrike Felt:** Thank you for inviting me!

[01:47] **Aadita Chaudhury:** We wanted to ask you how did you and why did you become an academic?

[01:51] **Ulrike Felt:** Actually, I was not sure that I would become an academic. I come out of a family where nobody had an academic degree. And I was very curious in my school time to study physics and I was lucky enough that I was at this stage of deciding to study at a moment when the political situation changed in my country and there was a strong voicing of bringing women into universities and to open up the universities more. So I thought, "Why not?" and I started to study astronomy, physics and mathematics and actually I finished all my studies with a PhD in theoretical high-energy physics with a minor in mathematics. And then I still did not know exactly what I

wanted to do, so I thought that academic work was splendid. I envied the professors and what they could do because I had this idea that this was about following curiosity, what you want to challenge and think about, but I had no idea what doing an academic career would be. So I only had to gradually stumble into an academic career which always luckily turned out for me very well. And I also stumbled into STS in a similar manner.

[03:10] **Aadita Chaudhury:** What do you think you would be doing if you had not become an academic?

[03:13] **Ulrike Felt:** Oh, I think I could be doing a lot of different things. I like to work with people and so I could imagine to do many things – from all kinds of engagement around sciences to also running a human resource environment or things like that. And the other thing is, more generally I like everything that challenges me really, where I think I need to be inventive and to draw the best out of myself and I was very good at programming and actually before I came to STS I was offered a job in a firm doing real-time programming for a kind of energy networks. So I was never sure that there was something that I couldn't really do and so I really had to gradually find out what I really love and want to continue to do. But I was never really worried that I would never find anything I'd love to do.

[04:18] **Aadita Chaudhury:** Awesome! You mentioned this earlier that you sort of fell into STS. I think a lot of us had the same experience of falling into the field of STS from different disciplines. So, how did you come to find science and technology studies?

[04:36] **Ulrike Felt:** The day I handed in my thesis, my physics thesis for grading, I was waiting at the elevator at this building and I saw a job announcement. And this job announcement was by an international group of historians of science looking for a physicist in high-energy physics that would want to join them for writing the history of the first European high-energy physics lab - CERN. So, CERN is for a high-energy physicist *the* place to be, so I thought like, "Wow, yes, I'm interested in it." I love writing. I came out of a high-school that was language-oriented, so I learned a lot of languages and I did a lot of writing, and I was interested in history, but I never knew that you could have a job like that. I didn't even know that STS existed or something like that. So I thought, why not apply, because it takes quite a while to take your grading and in the European context you have to have your grade in order to be able to apply for the next job – now you would call it a post-doc, I'm not even sure how that was called back then. So I thought why not apply and so they invited me and put me for the first time in my life on a plane – that was in '83. And so I got to Geneva, which is an impressive place, beautiful, but full of these international organizations, etc. And so I went to this interview and to my amazement they picked me. And so two weeks later I moved to Geneva. So, I landed in this history of science group and I... And this was in my view

only temporary and then I would look around for good post-docs in physics. And then I actually fell in love with this kind of work, to think about how scientists are actually really managing to do the things they do. And once you have been in these experiments, and I did as a summer job do that the year before, you kind of ask yourself how does it work. How can it deliver what it promises to deliver? And all these questions suddenly popped up for me and then I started to kind of read two books that have been for me essential and they were kind of new. Back then it was new! Today everything is old when it's older than an year... And that was Bruno Latour and Steve Woolgar called *Laboratory Life* and Karin Knorr Cetina's book on lab studies. These two books... I just recognized that this was something interesting to think about and from there I came across Ludwig Fleck's writing and that was for me the turning point. I just thought "Yeah, that's what I want to do." And I stayed five years all together at CERN and from there I moved and I got a position at Vienna, which had just opened an STS department.

[07:38] **Aadita Chaudhury:** What was it like to be at CERN in the 80s and what was the social and professional life like at that time?

[07:46] **Ulrike Felt:** That is a really interesting question! First of all, the moment I came to CERN was the moment when CERN had a kind of a turning point. It was the Nobel Prize for the W and Z bosons that was given there and so it was this real moment of competition when Europe was kind of winning over other regions in the world and I think this was an interesting turning point. It was still a very male-dominated environment. And when I met at CERN one of my old professors – and this is just an anecdote to explain the situation, – he asked me in what experiment I'm in. And I answered him, "I am in an experiment, but of a different kind. I'm trying myself as a physicist to work in a team of historians and to learn to think and work like a historian of science." And he said to me, "My goodness! You were such a good student! Why do you do that?" And he just could not understand it. So it was, historians were still understood as writing the classical history, so telling the facts about the story. It was not very... The relation to something like STS was a very ambivalent one because many people couldn't understand how you could go out of science and do those kinds of things. And CERN was at that point of time seeing its upward movement and its international kind of positioning and being more self-confident, but it was a super male organization as physics was in general and that was a bit weird as a kind of position, to be having moved as a physicist into this not so prestigious territory *and* being a woman was a bit strange to be honest. So... That's my story in short.

[09:44] **Aadita Chaudhury:** Thank you! What is your current research on?

[09:48] **Ulrike Felt:** Actually, across my career of 30 years I've had about two main points of interest, because I think they talk to each other in a very important way. In one way, I was interested

in knowledge regimes in the sense of how do institutions, disciplines, new fields organize themselves something they call knowledge? And how does that become something that is accepted by everybody? And how does the environment in that sense shape the way how they do this kind of work? So, institutions, larger political environments, democratic movements, etc. shape the way we do science. The call for today's science to be applicable, to have impact is part of a political change and not part of a necessary epistemic wish that comes from the community. And on the other hand, I was interested in this other side of public engagement and how does society manage to embrace, form, live with, reject new scientific and technological developments. So my work has always been in different areas situated along these lines. Currently, I have a number of projects that work on the role of data in health, in security, as well as in domains like re-configuring the city. And I do think that data matter both how we do science and the practices of science and it matters how we understand and how we live in societies along with these data sciences. And so these are the kinds of... I always try to have these things talk to each other. Because I think they hang together in a very profound way.

[11:41] **Aadita Chaudhury:** How do you explain or describe science and technology studies to people outside of the discipline, or even outside of academia?

[11:49] **Ulrike Felt:** In my work, which is often situated within other disciplines, that is the first and starting point for me. And what I generally do – and it works more or less well – is that I try to figure out an example people could imagine and starting from that example I try to show these both sides. I try to show how a particular technology or a particular knowledge has come to matter in society and how it reshaped the way we live, we think, we develop or we think about the future in our society. And they can understand quite easily when I pick good examples for them to see, because they also want to have influence in that sense. But on the other hand, I also show them how the way how they think about, how they imagine or how they do research is deeply imbued by the values and the kinds of societies they live in. And there are always a couple of nice examples to show them how they picked a topic or why everybody thinks now "This is something we have to ask, etc. And so to show them this moment of co-production of knowledge orders *and* social orders in that way and how that always goes together and is always situated in a particular moment in time, in a particular historic lineage maybe in a particular country, or even in a kind of a culture of an institution. And I think generally people get that quite nicely if you use an example to explain that. Abstractly that never works, just to be sure.

[13:29] **Aadita Chaudhury:** You mentioned Latour and Woolgar's *Laboratory Life* and Karin Knorr Cetina's work before. What is a significant debate in STS that has influenced your work, recently or historically?

[13:42] **Ulrike Felt:** There are two debates that I am very much tied up to. The one is really the question of science and democracy and issues of what does it mean to do science in a democratic context and a lot of people speak about that and I think there are... I just come from a conference of the Science and Democracy Network. We really struggle how do these notions – science and democracy – hang together and there are a number of scholars who have written interesting things. Among them people like Sheila Jasanoff, but also others that have really written interesting things. I mean, David Hess' work on how society can contribute with knowledge. The question of unasked questions and undone science is interesting. So this body of literature is important to me. And the other body of literature is around valuation and how we assess the value of science and technology. This is influenced partly by French people like [Luc] Boltanski and [Laurent] Thévenot, so not necessarily core STS people, but there is a beautiful body of STS literature right now coming up, looking into how values matter in the way how we do research and what kinds of questions we ask and to whom we speak also in that sense.

[15:04] **Aadita Chaudhury:** Could you tell us more about STS' status in Europe within institutions and generally within academia and society at large?

[15:12] **Ulrike Felt:** This is an easy and a difficult question at the same time. It's a difficult question because Europe is a political construct in that sense and so the countries have very different histories of STS. So when STS came to Europe, it was much stronger in the UK and in countries like the Netherlands and the Nordic countries and came only relatively late to the German-speaking countries. That was around the 80s or so, when it came to the German-speaking countries. My department, I'm currently in, has been founded in '87 and ever since we run an international program on the Master's level and the PhD level, etc. But countries have had ups and downs. Germany was quite strong for a while, had then a down and is now kind of really strongly STS. In the Netherlands, you had a well established STS very early. It kind of went down a bit institutionally speaking, so labeled as STS, and is now going up. So it's very interesting to see. I think overall if you would take the European association's conferences, which happen every second year, as an indicator, you see a clear growth and also a growth of the younger constituency that takes part in these conferences. So I'm very confident that there is a good move. It's always difficult to know how that will be institutionalized and stabilized, etc. So you find a lot of scholars who are – as in the US – in classical, I don't know, sociology departments or political science departments... And STS has always been struggling with where is the boundary, what you call already STS and what you don't. But I do think it's important, while I... OK. One, I think, it's not so important to think too much about the boundaries. It's also important that institutions label things as STS and have space for that and not just allow STS to happen in its institutions. This is important for reasons

of reproduction in the sense that young scholars see that this is a label you can carry, you can make your career to that and that brings us back to the first question: how can you imagine to become an academic in a field that is not institutionalized is much more difficult than if you see an institution. So in Europe we are trying to establish also the label of science and technology studies and to foster that really. And not just be integrated in something like interdisciplinary whatsoever studies or going to classical disciplines. So this is an eternal up and down, so it's... I think we are on the up trajectory right now, but I'm very optimistic in general.

[18:12] **Aadita Chaudhury:** Outside of your academic work, we also know that you have held positions within committees of the European Union. Can you tell us a little bit about that?

[18:22] **Ulrike Felt:** Actually it's quite interesting in this era, since about 2000, the European Union is much more strongly engaged in thinking also about societal dimensions of research and so quite the number of STS researchers have been called into positions to... Yeah, to give policy advice, if you want to call it like that, to the European Union. It's not always heard in a sense and we are sometimes concerned as STSers that our language is used and then filled with very different meaning and so it is an ambivalent position you hold. It's very important on the one hand to engage with policy making and to bring our knowledge we have about how science works and how that relates to society into policy processes. At the same time, the European Commission is a very powerful body and of course they have their own goals they want to pursue and you have to be very prudent to do enough and to be prudent about how your things are also used in ways you would not want to see it used. So I have made both extremely positive experiences, but also very mixed.

[19:44] **Aadita Chaudhury:** Is there any question that you have not been asked in your career that you thing would get at the heart of the work you're trying to do and you have done?

[19:54] **Ulrike Felt:** I think that at the heart of my work is actually the notion of inclusion and some form of participatory justice, I would call it. And I do think that we have these waves that STS loves participation and then everything is about participation and then we criticize participation, and then we have a new word and then everything is about... And I do think we need to consider very carefully what it is that stands behind these buzzwords and we know that there is a politics of buzzwords in the sense that this is about making science policy, they need ever new sounding concepts. But we have to consider how important it is to take these things seriously and to bring the red thread. And I would be very much interested in historically dealt, as a field, with the ups and downs of these kind of fashions of speaking about the relation of science and society and to reflect more on our role in picking up or not picking up certain kind of shifts and changes. That's what I think would be a nice piece of work to do when I get towards the end of my career.

[21:07] **Aadita Chaudhury:** Thank you so much for joining us today to talk to *Technoscience*.

[21:10] **Ulrike Felt:** It was a pleasure. Thank you!

Music outro

[21:16] **Laura Foster:** You've been listening to Technoscience - a podcast recorded at the 2019 Society for Social Studies of Science Annual Meeting in New Orleans. And produced by Laura Foster

[21:26] **Timothy Neale:** and Timothy Neale in association with the Society and with support from Alison Kenner, Teresa Hoard-Jackson, Aadita Chaudhury, Konstantin Georgiev, Juan Francisco Salazar, and Duygu Kasdogan. The intro and outro music is by the Young Fellaz Brass Band from New Orleans, Louisiana. Find them on Instagram and gmail @youngfellazbrassband. That's Fellaz with a Z.

[21:49] **Laura Foster:** Thanks for listening and catch you soon for the next episode.