Can the history of Responsible Innovation help us live better with hype? Interview with Danielle Shanley

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This TATuP interview with Danielle Shanley, conducted by Maximilian Roßmann, explores the origins of Responsible Innovation (RI) and Technology Assessment (TA) in the 1960s, revealing early visions of collaboration and interdisciplinarity a decade before the Office of Technology Assessment (OTA) was founded in the United States. Shanley highlights the significance of history in understanding hype and identifying with the intellectual movement despite its contested concepts and folk history. She suggests proactive engagement to ensure RI's continuity beyond buzzwords.

86

Maximilian Roßmann: How did you get interested in the history of Responsible Innovation and Technology Assessment?

Dani Shanley: My background is mainly in Science and Technology Studies (STS) and the philosophy of technology. I did a research master's at Maastricht University and a PhD was advertised here to conduct a transnational history of RI. It was a very open-ended project, and I spent the first year embedding myself in and amongst the RI community. At the time, there were many events going on, as it was 2017, which was really the boom time of RI. People were trying to negotiate what it was, or what it should be. I conducted interviews with some of the leading voices of the community, and they all had a very clear idea about what kind of history they thought I should be writing. I guess what I was more interested in was trying to see if and how they used history when they were introducing the concept. From there, I traced some of the common stories I was hearing, which I referred to as "folk histories" in my thesis (building on Arie Rip's notion of folk theories) because they were being told over and over again, and over

INTERVIEW

mit/with Danielle Shanley

von/by Maximilian Roßmann

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Kann uns die Geschichte der Responsible Innovation helfen, besser mit Hypes umzugehen?

time people seemed to stop thinking critically about the sorts of origin stories they were telling.

When does your history begin?

My history begins in the early to mid-1960s. You know, for example, the Of-fice of Technology Assessment (OTA) in the United States didn't come out of nowhere. And neither did the professional Society for Science and Technology Studies (4S), which got started around a similar time – the first professional meeting of 4S was in 1975 while OTA first opened its doors in 1974. However, what I really wanted to look at was the pre-history of how we got there. And it was interesting to me to see just how much academic research was going on around the idea of Technology Assessment (TA) a couple of years before the OTA got going. There was a lot of overlap between various academic groups and it was clear that similar concerns and interests drove the people drawn to both TA and STS. From as soon as STS got started, TA was a research subject, you know, it was something that scholars were interested in. And as we now know, the interaction between these two communities has always continued. Crucially, I think that it is this close-knit relationship and sort of feedback loop between them that has brought us to where we are now. What I try and do in my thesis is to show that in the early days of TA there were many competing ideas around what it could or should be and this is why it eventually ended up becoming this slightly hollowed out version of what some people initially wanted it to be.

What was the historical context for the first ideas of TA and RI to emerge?

In the US context, government spending on technology was continuously soaring year on year, which was beginning to attract criticism both within Congress and amongst the wider public. At the same time, Congressional decision-making increasingly revolved around new and emerging technologies. Those working within the corridors of power were becoming increasingly aware that they didn't have the expertise or knowledge required in order to make good decisions. So, Emilio Daddario who chaired the subcommittee on Science, Research, and Development started exploring the idea of TA. Interestingly, as a side note, Daddario had been corresponding with Charles Lindbergh who was living as a hermit in

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the remote countryside at the time (for a variety of reasons). Daddario, like many others, really saw Lindbergh as this sort of Hero of American Progress and Technology, seeing how he had operated the first non-stop flight across the Atlantic. It was through Daddario's correspondence with Lindbergh that Daddario really started to think seriously about the idea of TA. Lindbergh repeatedly stressed his concerns to Daddario, along the lines of "You know, I think we need to slow things down, I think we need to kind of have a better understanding of the decisions we're making and the impact these technologies are going to have."

… Impacts the technologies are going to have! Did TA researchers in these early days promise that they can forecast scenarios?

I think definitely, in the early days of OTA, they were very wary about making predictions. I think they really tried to focus on outlining the different courses of action you could take. I'm trying to think if they explicitly used the word "scenario" – I don't think so, but they definitely talked about creating stories, creating narratives, and thinking about the future. Crucially, no one wanted it to be seen like they were the ones steering or giving clear advice on what decisions should be taken, because they talked a lot about upholding some ideal of neutrality. As a result, they avoided committing to specific predictions. It was more like "these are the options available based on the research we have done". No one involved wanted OTA to have too much responsibility. And that was sort of the fear that politicians had, you know, they didn't want to outsource what they saw as their responsibility. So, it was very much a part of the identity of OTA as well – "We don't have responsibility for the decision-making. We are just providing information." But I think that academics had a different idea of TA (and indeed Daddario did as well, to some extent).

So, in the OTA, there was a concrete effort to say that this is the politicians' job, and this is now what scientists and experts do, and we create, kind of a boundary field?

Yes, very much. Still, OTA became something very different from what it was in that pre-period, because in the pre-period it was much more about how we get scientists and politicians talking to each other and working together. People like Lola Redford and Ralph Nader represented the

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is Assistant Professor at the Faculty of Arts and Social Sciences at Maastricht University in the Netherlands. She is currently exploring the ethical implications of immersive environments (which combine advanced technologies such as virtual reality and artificial intelligence). Dani's expertise is mainly within science and technology studies and the philosophy of technology, with a particular focus on reflexive, participatory design methodologies (or, responsible innovation), such as social labs and value sensitive design.

interests of activists, stating that if you're having these kinds of committees, you need to include stakeholders beyond just the techno-scientific elites. And then you see a lot of pushback, like "We don't want

Over time people seemed to stop thinking critically about the sorts of origin stories they were telling about Responsible Innovation.

to open the doors to that, that's going to be a nightmare." Then, you had the members of the techno-scientific elite, like Jerome Wiesner, who had a very clear idea of what they thought TA should be. For example, Wiesner is attributed with having said that TA needed to be like a traffic light system. The idea being that TA should be able to provide a red light, like a stop sign, that it needed to have this early warning function, to see the potential for where things could go wrong and provide an opportunity to pull the plug. Whereas I think for Daddario, at least in the beginning, when you read the very early documents of his subcommittee and a number of his speeches what he was trying to say was "we are all responsible as citizens to be thinking about these things. And it's not just a case of politicians with the decision-making power and you scientists doing your work, but we need to collaborate." Daddario was somehow quite effective in creating a bridge between these groups. However, what TA later became at the OTA was not his vision for it initially. His vision was a lot closer to something like RI. He really wanted to promote interdisciplinarity, he wanted people to reflect a lot, you know, anticipating and including different stakeholders, these sort of key elements that we associate with responsible innovation today.

So, the initial idea was to set up interdisciplinary teams to better reflect responsibilities. Looking at it nowadays, who does identify under RI, and who does not?

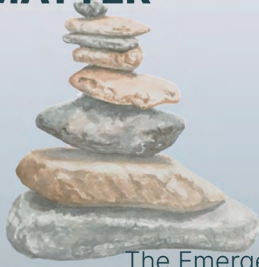How we identify, I think, is an interesting and ongoing question. I think in STS

87

MAKING RESPONSIBILITY MATTER

The Emergence of Responsible Innovation as an Intellectual Movement

Danielle Shanley

"We have to take responsibility to keep it going and to make sure that whatever the new buzzword is, we still make clear that these things are very much tied together", Danielle Shanley.

and RI circles it is perhaps asked more than in most other academic communities. And you know, our conferences often have panels like "What is X (STS/RI etc.) …?" – in the sense of "What are we actually doing?" Something I recently talked about with a friend of mine is asking what qualifies you as an AI ethicist, right? Who are you to do that kind of thing? What would the procedures look like to give some kind of license to people to perform this role? I think this is something that we have in RI as well. What gives us the credibility or power to play this role, right? I think who identifies as RI and who does not is quite an interesting question because the community is often referred to as a sort of bubble. A couple of people I was speaking to in the United Kingdom were previously very closely affiliated with the ELSI/ELSA work (Ethical, Legal, and Social Implications/Aspects). And they said, "You know, yeah, a few years ago, all the grants we were writing, it was all under this banner of ELSI/ELSA. Now it's responsible innovation. But for us, it doesn't really matter. As long as this work continues being funded, it doesn't really matter what we call that kind of thing." I think that's very interesting.

Indeed, this is very interesting, and I can fully relate to these ongoing politics and struggles about identifying with the banner of TA, STS, technology ethics, or RI. Philosophers then claim that STS just describes but avoids the normative debate. And TA people claim that STS and ethicists miss giving stakeholders applicable recommendations, and so on.

I think the reason why people are drawn to them is similar, like wanting to have some kind of impact, even if it's by describing things differently. In the first kind of generation of STS, people often came from technical backgrounds, people like Wiebe Bijker or Arie Rip, for example, that were scientists or engineers. But I think also that it's people that associate themselves with a particular kind of social scientific work in interdisciplinary teams, who are interested in the responsibilities of scientists and technologists. Increasingly, scholars are also trained in STS all the way through, and I think it's interesting to think about what that means and how that changes the ways in which we're able to interact with the different communities, when we don't have that same technical language or background or expertise. I think that the whole thing with RI is quite a broad banner that brings many different people together. And I think we can say, in that way at least, that it has been quite effective.

It was quite effective in bringing people together. But then, there was this headline "R.I.P.R.R.I." as you cite in your paper[1]. Would you say that is true? That Respon-

sible Research and Innovation (RRI) has been overhyped and expectations have been too bloated for that time?

It is perhaps important to just briefly point out the differences between RRI and RI. Though they are overlapping discourses, we typically think of RRI as related more specifically to the policy related discourse, particularly the Commission's focus on the "keys" of RRI. Meanwhile RI is typically used to refer to a broader academic discourse and the community which that discourse has brought together. Hype is an interesting topic from within both RRI and RI, especially if we think about Artificial Intelligence now and how we can try and move away from hype narratives. But I'm also interested in the hype of RRI/RI itself, because I think ultimately, we need hype, right? I mean, as researchers, when we write research proposals to get grants, you know, we have to hype what we're doing. I think again from the kinds of conversations I have with people in RRI/RI projects, I get the feeling that people do think it overpromised, but I think in a way that it had to. I mean, if

What Technology Assessment became at the Office for Technology Assessment was not Daddario's vision for it initially. His vision was a lot closer to something like Responsible Innovation.

you want to be transformative, you kind of have to make big claims, right? It is very difficult to break the need for hype cycles without transforming the whole research system. And so, I think we're complicit, to some extent, in also playing part of the same game that we're criticizing[2]. RRI had a very clear trajectory in terms of, you know, a huge surge of interest, a

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1 See Shanley 2022.

2 For a further discussion about the discomforts with the bubble, hype and politics of RRI, see Shanley et al. 2022.

sort of peak, and then, you know, now we see it's kind of in this "where is it going next?" phase. Are we completely letting

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go of the term? Are we still using it? But I guess the question is then, how can we do it as responsibly as possible? Like how can we and how do we make sure that we're not just reinventing the wheel with each new buzzword?

Do you have any suggestions for that?
No, unfortunately, I don't have any particular solutions to offer. I just think it's an important conversation that should be taking place rather than waiting for the next buzzword to come along and then all jumping on that bandwagon. We need to be having these conversations within universities, between universities, and across other institutions and domains. It's certainly a common criticism within the RI community that we've failed to properly engage industrial partners sufficiently. I think we

should be more proactive, and we should take more agency in making sure that this doesn't just fade away. Just because they

decided to stop funding it under this name doesn't mean we have to just give up on it, right? We have to take responsibility to keep it going and to make sure that whatever the new buzzword is, we still make clear that these things are very much tied together – as I try to show with my extended histories of RI. We don't just abandon one program and move on to the next. I think that is important, like I said, I think what we can do is ensure that we have these kinds of conversations around how we make sure that we don't just start again from scratch each time.

From reflecting on RI's and TA's joint history – what would you say is the main takeaway for the TA community?
Huh, that's a big question. I've spent a lot of time thinking about histories that ha-

ven't been told or the histories that have been overlooked or neglected. And I think that has a very important role when we think about hype and how we treat hype as well. I'm doing a scenario workshop with some people in France in a month and I was talking to someone about it yesterday. And she asked, why don't you do a history exercise with them? They're already so engaged in the hype and as a result, these are the people that don't necessarily think so much about history. I think it's not just recognizing the importance of history for TA, but for the communities that you're working with in terms of thinking about the hype and trying to learn how to live well, or how to live as responsibly as possible, with hype.

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89