WTMC SERIES

ON TEACHING & LEARNING STS

A New Political Sociology of Science

Winter School
2021 (1)

WTMC

*Netherlands Graduate Research School
of Science, Technology and Modern Culture*

WTMC Series on Teaching and Learning STS

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Maps

Instead of a map of how to get to Soeterbeeck, we provide a map of how to get to our chosen platform and an introduction of our guide for this journey... We will be using a digital learning platform (= Canvas) provided by the University of Twente, which is the institutional host of WTMC. This platform is similar to Blackboard, which is perhaps familiar to some of you. Canvas has a number of functionalities and we are developing a WTMC environment within Canvas that will serve for the Winter School and possibly to support over events or activities in the future. What can you expect? A video conferencing room (Lecture Hall) and different settings for discussion (Seminar Room, Corridor Talk) and exchange.

In the run up to the Winter School, you will receive a guest account that will allow you to access Canvas. We have also planned a short initial information session to start us off. That way, we will be able to take a tour of the environment, check any technical issues and ensure that we are all ready to go when we introduce ourselves to each other and start the lectures and activities.

Practical notes

To do before the Winter School

Allow about two weeks for preparation of this Winter School. The compulsory literature consists of roughly 40-50 pages per lecture plus the core reading. At 8 pages per hour, this takes about 65 hours. We expect you to spend about 15 more hours to prepare the exercises, and read part of the recommended literature as you wish. This amounts to 80 hours in all, which is the standard amount of preparation time for a Winter School. In preparation, proceed as follows:

1. Read the detailed programme and pay special attention to the activities so that you know in advance what you need to prepare and think about.
2. Read all literature before you arrive. There is no time to read during the Winter School. Make notes about what you don't understand, questions you would like to ask, things you want to discuss.
3. Check the programme to see if you are a discussant for one of the PhD presentations. Look at the guidelines for presenters, discussants and all others!

Attendance and cancellation

- *The Winter School will be a mediated, largely synchronous event.* In this context, attendance means being logged on with your camera on, as much as bandwidth allows. In order to prevent connection problems, we recommend to use a wired internet connection. Almost all modern routers allow for connections with a network cable. It also means participating in the asynchronous activities that we have included in the programme in order to limit screen fatigue.
- In order to receive credit for attending the Winter School, *you are required to be present throughout the entire event* (except the free afternoon and evening on Tuesday). Only calamities are grounds to depart from this rule. If this creates problems, then please contact the coordinators beforehand and as soon as possible.
- On *Tuesday evening* there will be a social activity (we expect that this will be a pubquiz, or an escape room!)
- If, for any reason, you are unable to attend the Winter School, please let Elize Schiweck (e.schiweck@utwente.nl) know **as soon as you can**. We may be able to offer your place to someone on the waiting list if we know soon enough. If notice of cancellation is received more than 10 working days prior to the start of the Winter School, you will receive a refund for all of the fees, minus €250 to cover the costs of administration and course materials. In the case of cancellations received less than 10 working days before the start of the Winter School, fees and any other costs that have been incurred by WTMC will not be refunded.

Programme

Time	Sunday 10-01	Monday 11-01	Tuesday 12-01	Wednesday 13-01	Thursday 14-01
	Setting the stage	Addressing Challenges	Technopolitics	Knowing and not knowing	Normative stances
9.00-9.15		2.1 What kept you awake?	3.1 What kept you awake?	4.1 What kept you awake?	5. 1 What kept you awake?
9.15-10.30		2.1 Critical discourse on challenges and SDGs: an STS perspective, Pierre-Benoît Joly Lecture	3.1 More democratic grip on digitization, Melanie Peters Lecture	4.1 The production of ignorance, Pierre-Benoît Joly Lecture	5.1 Transforming our World. A proposition, Johan Schot Lecture
10.30-11.00		break	break	break	break
11.00-12.30	Welcome 1.1 Why do we need a new political sociology of science, Pierre-Benoit Joly Lecture	2.2 PhD presentations 1	3.2 PhD presentations 2	4.2 PhD presentations 3	5.2 Re-politicizing STS, Pierre-Benoît Joly Lecture
12.30-13.30	lunch	lunch	lunch	lunch	lunch
13.30-14.45	1.2 Discussion in trios: goals for the Winter School and questions (intellectual, professional) to share on a discussion board? Exercise	2.3 Exploring alignment between research and SDGs with critical mappings: potentialities & dangers of quantitative tools, Ismael Rafols Lecture	3.3 Revisiting the social control of technology, Pierre-Benoît Joly Lecture	4.3 Science, Ignorance and Uncertainty in a Toxic World, Soraya Boudia Lecture	5.3 reflexive journey part 3 Plenary Exercise
14.45-15.00	break	break	break	break	break
15.00-16.00	1.3 Core reading-small groups Small groups via Canvas (6 groups of 5) Instructions on what to report Exercise	2.4 reflexive journey part 1 Individually Exercise		4.4 reflexive journey part 2 Small groups Exercise	5.4 Rounding off & farewells
16.00-16.15	break	break	break	break	
16.15-17.00	1.4 Core reading Plenary discussion				
17.00-19.00	Podcast walk & dinner				
19.00-20.30	1.5 Screening Social Activity	2.5 Digital leadership Skills training	3.4 Online pubquiz Social activity	4.5 Digital leadership Skills training	

Introduction to the Winter School

Welcome to the Winter School. Together with anchor teacher Pierre-Benoît Joly, we will explore the possibility of a new political sociology of science. The exploration starts here, well before you log in to our platform. This programme, together with some texts that you will have to collect yourself, provides the luggage for your journey. Travel well prepared! It is advisable that you first carefully study the whole programme, before embarking on the actual reading. This should help you get a sense of the themes and how they connect, and how specific texts fit in those themes. Also, some assignments require preparation, others require you to have certain things at hand. And finally, we will have a number of participant presentations. Please check whether you are scheduled as a discussant for one of them.

For each of you, the ideas and concepts discussed during the Winter School will have different kinds of relevance. This depends on your research topic and method, the phase you are currently in, and your personal interest. The Winter School is not a “one size fits nobody” event, and getting the most out of it does require some work. Make sure that you have in mind what you would like to learn, and how that can be achieved. In general, it is good practice to prepare one or more written questions about the reading material for each session. This helps focus your attention during lectures, and it ensures that you have something to contribute to the discussion, especially if you are not that eager by nature to join discussions. Of course, going with the flow and welcoming things the way they happen to come to you, is also an important mode of learning. So here we go.

On Sunday, we will set the stage with a first introductory lecture from our anchor teacher, reflection on what to expect from the week and in-depth discussion of the core reading.

On Monday, we will consider how the approach presented on Sunday can provide insights on agenda setting and addressing major challenges such as those represented by the SDGs, with Pierre-Benoît Joly and Ismael Rafols. We will also start a reflexive journey, during which you can explore your own stance.

On Tuesday, we will consider what political sociology can mean for technologies with Melanie Peters and our anchor teacher. To mark the middle of the Winter School, we have a slightly shorter day and a nice social evening planned.

On Wednesday, we will address issues of ignorance, together with Soraya Boudia and Pierre-Benoît Joly, while also continuing on our reflexive journey.

On Thursday, we will address the final theme of the Winter School, and consider the normative dimensions with Johan Schot and our anchor teacher.

We hope you will enjoy preparing for this Winter School and look forward to meeting you (again) in a few weeks!

Anne and Andreas

Introduction to the theme

Why is it necessary to (re)politicize STS? What does it mean? What are the implications from a methodological and epistemological standpoint?

This WTMC Winter School is dedicated to such questions and will invite participants to travel through a reflexive journey. This journey will first take stock of the Science and Technology Studies (STS) legacy and the way our community deals with politics. Joly's main argument is that STS misses major issues.

Of course, STS has made a major shift in the way Social Sciences and Humanities (SSH) deal with the political. The introduction of non-human actors in so-called social processes means that it is now commonplace to use the expression socio-technical and to consider that technology and politics are strongly intertwined (hence the expression techno politics). The agency granted to non-humans, but also to different ways of knowing, is one of the major contributions of STS. It is also much-debated, as evidenced by the controversies on Actor-Network Theory. However, STS often has a bias towards novelty, innovation, plasticity and action that leads to the neglect of "structural" factors such as institutions, long standing asymmetries of power, etc. Accordingly, STS hardly engages with issues related to science, technology and innovation policies. Such issues are generally left to scholars working in innovation studies and in science policy.

Indeed, important questions remain unnoticed. For instance, if we take seriously one of the STS credo "innovation is society in the making", why is it that science, technology, innovation (STI) fail to address major challenges such as inequality or environmental damages, etc.? And why is it that this issue is not a core one in our communities? What are our norms and values? What about our normative stances?

The reflexive journey which this Winter School is inviting us to undertake will lead us through different landscapes:

- First it encourages us to reflect upon the research stances that are needed if we take seriously the way our research addresses the challenges mentioned above.
- Second, this will lead us to consider different entwinements of knowledge and action and to reflect on epistemological and methodological implications.
- Thirds, these reflections will take advantage of the ongoing research experience of participants, which will be used to organize a collective experiment through the course of the Winter School.

The Winter School will offer you many interesting insights in terms of both methodology and content. It is aimed at PhD candidates who are in the first phase of preparing their doctoral dissertations. We are delighted that Pierre-Benoît Joly will act as anchor teacher in this Winter School.

Detailed overview

Sunday: Setting the Stage

1.1 Why do we need a new political sociology of science, Pierre-Benoît Joly, Lecture

Why is it necessary to (re)politicize STS? What does it mean? What are the implications from a methodological and epistemological standpoint?

Readings

The New Political Sociology of Science: Institutions, Networks, and Power. Scott Frickel and Kelly Moore, editors. University of Wisconsin Press, 2006. ONLY : Introduction

Latour, B., 2007. "Turning Around Politics: A Note on Gerard de Vries' Paper", *Social Studies of Science*, 2007; 37; 811-820.

Pestre, D., 2004. "Thirty years of science studies, Knowledge, Society and the Political", *History and Technology*, Vol. 20; 4; 351-369.

1.2 Discussion in trios: goals for the Winter School and questions (intellectual, professional) to share on a discussion board? Exercise

What is your aim for this Winter School? What are you hoping to experience? To share? To discover? Do you have specific expectations for some sessions, based on the topics or readings? Which sessions feel closest to your work or most novel?

1.3 Core reading-small groups

In this session, we will discuss the core reading in small groups:

Grin, John, Jan Rotmans, Johan Schot (2010), Transitions to Sustainable Development: New Directions in the Study of Long Term Transformative Change

Selected chapters only:

- Introduction: From Persistent Problems to System Innovations and Transitions
- 1.1: Introduction: Exploration of the Research Topic
- 1.3: Theoretical Backgrounds: Crossovers STS, Evolutionary Economics, and Sociology

Questions for small group discussion

Two questions are central to the authors' project:

- 1) how to understand transition dynamics
- 2) how to shape transitions towards a sustainable society

Here are some questions that may be useful to help orient your discussion of how they have developed a conceptual and theoretical framework to pursue their project.

- When discussing social learning, the authors link it to the process of reframing (page 5). Is reframing a superpower of STS? Is reframing part of your own project? (Your thoughts on this issue will also be relevant for the reflexive journey).
- What do you think of the way the authors reconcile the micro and macro levels?
- Is the technological construction of society still understudied, as the authors note (page 34)? How can this be studied in a non-technologically deterministic way? Do you know of any scholars who have done a convincing job of this?
- The authors explain how agency is embedded in existing regimes, so that the variations that are possible are constrained. Can you think of an example to illustrate this dynamic?
- How is the concept of trajectory useful for the aim of our winter school, to help overcome “the STS bias towards novelty, innovation, plasticity and action”?

1.4 Core reading, Plenary discussion

The groups will report on their discussions and we will collect the main themes and lines of inquiry that arise, so that we keep track of them and connect to them in the course of the week.

Social Activity

To ensure that we also enjoy the informal aspects that are a very pleasant and precious aspects of WTMC events, we will have a social event on our first evening. More details to follow.

Monday: Addressing Challenges

2.1 Critical discourse on challenges and SDGs: an STS perspective, Pierre-Benoît Joly, Lecture

If we don't consider “Grand challenges” and SDGs only as buzzword but if we take seriously the need to address these issues, what are the implications of STS? One of the implications, we will argue is that it is necessary to engage both with innovation studies and innovation policies.

Readings

Weber, M., Rohrer, H., 2012. “Legitimizing research, technology and innovation policies for transformative change. Combining insights from innovation systems and multi-level perspective in a comprehensive ‘failures’ framework”, *Research Policy*, 41, 1037-1047

Kuhlmann, S., Rip, A., 2018. “Next-Generation Innovation Policy and Grand Challenges”, *Science and Public Policy*, 45(4), 2018, 448–454

Ciarli, T., Rafols, I., 2019. “The Relation between Research Priorities and Societal Demands: The Case of Rice”, *Research Policy*, 48, 949-967 *NOTE THAT THIS READING WAS ASSIGNED BY TWO SPEAKERS.*

2.2 PhD presentations 1

Tessa Roedema respondent: Sarah Rose Bieszczad

Hanna Stalenhoef respondent: Ivan Veul

Georgiana Kotsou respondent: Irene Niet

2.3 On the use of quantitative approaches for studying SDGs and science, Ismael Rafols, Lecture

SDGs and societal challenges are becoming one of the new framings for thinking about priority setting in science. The argument is that research should be better aligned with societal needs such as pandemics or climate change (Pielke and Sarewitz, 2007). In this lecture, I will introduce efforts to map research related to SDGs or societal needs using quantitative approaches (Ciarli and Rafols, 2019; Rafols, 2020). I will argue that using these tools with positivist lenses has the danger of highlighting scientific-technocratic solutions to social issues, thus ‘closing down’ alternative views. Following Andy Stirling’s framing of appraisal for ‘opening up’ (Leach et al., 2010), and building on the critical sociology of quantification (Boltanski, 2014; Bruno et al., 2014), I will provide examples on how statistical tools can, instead, illuminate the underlying political economy of research, while showing the diversity of potential pathways and the plurality of perspectives for addressing SDGs.

Readings

Ciarli, T., & Ràfols, I. (2019). The relation between research priorities and societal demands: The case of rice. *Research Policy*, 48(4), 949-967. *(Skip the quantitative details). NOTE THAT THIS READING WAS ASSIGNED BY TWO SPEAKERS.*

Rafols, I. (2020) Consensus and dissensus in ‘mappings’ of science for Sustainable Development Goals (SDGs). [CWTS Blog Madrics](#)

Sarewitz, D., & Pielke Jr, R. A. (2007). The neglected heart of science policy: reconciling supply of and demand for science. *Environmental Science & Policy*, 10(1), 5-16. <https://doi.org/10.1016/j.envsci.2006.10.001>

Suggested readings

Boltanski L. (2014), “Quelle statistique pour quelle critique?” , in I. Bruno, E. Didier and J. Prévieux (eds), *Statactivisme. Comment lutter avec des nombres*, Paris: La Découverte, pp. 33-50.

Bruno, I., Didier, E., & Vitale, T. (2014). Statactivism: Forms of action between disclosure and affirmation. *Partecipazione e conflitto. The Open Journal of Sociopolitical Studies*, 7(2), 198-220. <https://core.ac.uk/download/pdf/41169300.pdf>

Leach, M., Stirling, A., Scoones, I. (2010). *Dynamic Sustainabilities*. London: Routledge, <https://doi.org/10.4324/9781849775069>

Wallace, M. L., & Ràfols, I. (2018). Institutional shaping of research priorities: A case study on avian influenza. *Research Policy*, 47(10), 1975-1989. <https://doi.org/10.1016/j.respol.2018.07.005>

See also Blogs in STRINGS project: <http://strings.org.uk/>

2.4 Reflexive journey, Part 1 Exercise

In this session, we will begin a three-part reflexive journey. The starting point for this journey is your own work, and the path we will follow is set out in the article by Hazard et al. In this first session, the goal is to map your own stance. Write a one-page text describing your stance, and reflecting on how your project, your personal commitment and the organisation in which you work relate to your stance.

Reading

Hazard, L., M. Cerf, C. Lamine, D. Magda, and P. Steyaert. 2020. 'A Tool for Reflecting on Research Stances to Support Sustainability Transitions'. *Nature Sustainability* 3 (2): 89–95. <https://doi.org/10.1038/s41893-019-0440-x>.

2.5 Digital Leadership, Skills Training

Format

2 session of 1.5 hours in the evenings, days 2 and 4 of 5-day winter school for PhDs

Aim

In these sessions, we use the concept of leadership to think about what can contribute to thriving under the current conditions for academic work that is strongly shaped by anti-pandemic measures.

Objective

Given that the current context reshapes many of our relations and involves a higher degree of mediated interactions, we explore how 'digital leadership' might constitute a set of knowledge skills and attitudes to exert influence in a digital context.

Defining leadership

Following Cavagnaro and Van der Zande (2021), we define leadership as a process of influence that can be directed at the self, in relation to other people and to non-humans. Leadership is both formal and informal, organizational and personal. Leadership means exercising influence, and this can also be done when one is not in a position of power in an organization.

Defining the digital

From the answers provided in our survey of participants, the digital has different meanings, which can be clustered around the digital as

- A tool to become more comfortable with/master

- A 'barrier', challenge or fundamentally different way of pursuing research activities, often expressed in terms of methodological concerns ('online' interviews, focus groups, presentations) that requires rethinking one's approach

- A context of labour where connections to the self ('focus', concentration, time management and sticking to goals) and to others are difficult to realize

Please note that this is not an exercise in individualizing the problem; WTM has put a lot of thought and effort in addressing the institutional, organizational and technical aspects of its work and of the winter school, and we as coordinators have also both been intervening in the public debate and in institutional policy-making with regards to digital infrastructure, research and learning.

Session 1 Digital Leadership: Engagement and interaction

Short presentation + small group work

A general theme across responses is the challenge of connection in online interactions. For this session, we will first discuss how connection can be established and then explore connection in different kinds of work. Each group will address one type of work and we will share the outcomes of the session.

In small groups (5 max):

Presenting

How can you connect in the course of a presentation? How can the various ways of establishing connection be used in the course of a presentation? How can you 'configure' your audience for connecting? What has been your most rewarding experience of presenting online and what made it positive?

Collaborative writing

How has writing changed and which new possibilities does writing at a distance offer when collaboration becomes more asynchronous? How can you connect with your co-authors in writing? Which tools stand out and how do they shape writing?

Facilitating/moderating meetings

What is challenging about moderating meetings online? How can you connect to the participants and use that connection to lead discussion? Is more structure essential or can too much structure kill interaction? What are some tips for turn-taking or interrupting?

Knowledge sharing

Whether you are trying to connect to your project team or to a community of practice, knowledge sharing remains important even if we are less physically co-present. How can sharing still take place? Does online interaction change the dynamics? Does some knowledge circulate more easily or are some voices or types of input more easily shared?

See Annex 1 at the end of this document for outcomes of the discussion.

Tuesday: Technopolitics

3.1 More democratic grip on digitiation, Melanie Peters, Lecture

This talk will address how to involve the parliament and the broader public in shaping our digital society. The preparation for this session is reading a report from the Rathenau Instituut, which Melanie Peters heads. The Rathenau Instituut is a Dutch think tank that researches the societal impact of developments in science and technology and facilitates public debate. It supports parliamentary decision-making and publishes in the areas of digital technology, health care, education and the science ecosystem. The Rathenau Instituut is based in The Hague, the Netherlands. It is funded by the Dutch ministry of science and education and has an independent board and free mandate. <https://www.rathenau.nl/en/about-us>

Readings

Rathenau Instituut, 2020. **Response of the Rathenau Instituut to the European Commission's White paper on Artificial Intelligence.**

3.2 PhD presentations (2)

Mario Pinzon-Camargo respondent: Ying Ying Han

Irene Niet respondent: Lorenzo Olivieri

Natascha van Bommel respondent: Mario Pinzon-Camargo

3.3 Revisiting the social control of technology, Pierre-Benoît Joly, Lecture

Social control of technology is a central topic of STS. In the last 30 years much has been done for better understanding different shades of grey of technical democracy. Here, we want to reflect critically on the experience of public participation in science and technology.

Readings

Marris, C., Joly, P.B., Rip A. (2008). "Interactive Technology Assessment in the Real World: dual dynamics in an iTA exercise on genetically modified vines." *Science, Technology and Human Values* **33**(1): 77-100.

Joly, P. B., Kaufmann, A. (2008). "Lost in translation? - The need for "upstream engagement" with nanotechnology on trial." *Science as Culture*, **17**(3): 225-248.

Joly, P.B. (2013). Governing emerging technologies – The need to think out of the (black) box, in Hagendijk, R., Hilgartner, S., Miller, C. *Science and Democracy: Making Knowledge and Making Power in the Biosciences and Beyond*, London Routledge

3.4 Social Event

Time to enjoy ourselves! We will come together for some informal fun. More details to follow.

Wednesday: Knowing and not knowing

4.1 The Production of Ignorance, Pierre-Benoît Joly, Lecture

The social production of ignorance is one of the cornerstones of the politics of knowledge. Whereas much has been done for understanding agnotology on tobacco and the role of the denial machine for climate change, it is necessary to perform a systemic analysis. This involves first understanding why some areas of knowledge are underdeveloped (undone science) and second why available knowledge is often ignored by policy makers (uncomfortable knowledge).

Readings

Scott Frickel, Sahra Gibbon, Jeff Howard, Joanna Kempner, Gwen Ottinger, David J Hess, 2010. “Undone Science: Charting Social Movement and Civil Society Challenges to Research Agenda Setting“, *Science, Technology & Human Values*. 2010 Jul 1; 35(4): 444–473

Rayner, S., 2012. “Uncomfortable knowledge: the social construction of ignorance in science and environmental policy discourses”, *Economy and Society*, 41:1, 107-125

4.2 PhD presentations 3

Ruth Falkenberg respondent: Selen Eren

Lea Beiermann respondent: Jackie Ashkin

Zahar Koretsky respondent: Ruth Falkenberg

4.3 Science, Ignorance and Uncertainty in a Toxic World, Soraya Boudia, Lecture

Ignorance as a research topic has been en vogue in sociology, philosophy, history and anthropology for more than a decade. The objective of this lecture is to discuss the contributions and limitations of this notion for the STS. The first part will present a state of the art of scholarship on ignorance. This ranges from studies on agnotology which have analysed strategies of raising doubt in the public space, of lobbying and corruption to the new political sociology of science which has been interested in the institutional and structural dimensions of the production of ignorance and undone science. The second part will discuss how STS can mobilize this notion in a renewed way. The complex situations (wicked problems) generated by the increasing toxification of the world, and more generally the global environmental crisis, will be especially considered.

Readings

Frickel, S., Howard, J. S. Gibbon and Kempner, J. (2010). « Undone Science: Charting Social Movement and Civil Society Challenges to Research Agenda Setting », *Science, Technology, & Human Values*, 35(4), 444-473.

Frickel, S. and Edwards, M. (2014). « Untangling Ignorance in Environmental Risk Assessment ». In: Soraya Boudia et Nathalie Jas (Eds.), *Powerless science? science and politics in a toxic world*. New York : Berghahn Books, 215-233.

Further suggested (but not required readings)

Hess, D. (2015). Undone Science and Social Movements. A Review and Typology. In: Gross, M. and McGoey, L. (Eds) (2015). *Routledge international handbook of ignorance studies*, London, New York: Routledge, Taylor & Francis Group, 141-154.

Michaels, D. (2008). *Doubt is their Product: How Industry's Assault on Science Threatens your Health*, Oxford: Oxford University Press.

Oreskes, N., Conway, E. (2011). *Merchants of doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming*, New York: Bloomsbury Press.

Proctor, R. et Schiebinger, L. (2008), *Agnotology: the making and unmaking of ignorance*. Stanford: Stanford University Press.

4.4 Reflexive Journey, Part 2, exercise

In this second part of the reflexive journey, we will revisit and deepen our reflection on research stances. This will be fed by the lectures and discussions of the past days. In this session, you will work in pairs. The first step will be to share your one-page description of your stance with your partner. Each member of the pair reads carefully and thoughtfully, and provides (1) questions to the author (2) suggestions of connections to the description based on what you have heard in the past days. Also consider elements that may be shaping your stance: funding, institutional or disciplinary agendas, etc.

This is followed by discussion between both authors, addressing the questions and suggestions. Please remember that such a description is a very personal text. This exchange will work best if you are truly engaged and kindly inquisitive towards the author.

*4.5 Digital Leadership part 2, **Concentration, time management and boundaries***

Dr Elena Cavagnaro, Campus Fryslan and NHL Stenden University of Applied Sciences

In this second session, we will continue to develop the digital skills, based on a selection of what you put forth in the questionnaire.

Short presentation + exercises

A recurrent challenge shared in the survey is managing time. Yet: How do we conceive time? Can 'time' - however defined - be 'managed'? How can we categorize and organize our tasks, at an individual level, so that these get executed in a given 'time'?

During a short presentation some thoughts on time and time management will be shared. After this philosophical introduction, the so-called Eisenhower matrix will be presented, and its helpfulness tested through two short group exercises. Some advice on planning and on further readings will be shared.

Work cited

Cavagnaro, E. and van der Zande, I.S.E. (in print) Reflecting on Responsible Leadership in the Context of Higher Education, *Journal of Leadership Education*

Thursday: Normative Stances

5.1 Transforming our World: A proposition, Johan Schot, Lecture

My presentation will focus on how we know that our current world is at a watershed moment in history, and what we can do about it from a Science, technology & innovation policy perspective? To answer the first question I will take a long term historical perspective & mobilize the Deep Transition concept. To answer the second question I will discuss my experience in working with transformative

innovation policy consortium. With this consortium we have developed a specific formative evaluation methodology using transformative outcomes. This methodology will be introduced.

Readings

Schot, Johan, and Laur Kanger. 2018. 'Deep Transitions: Emergence, Acceleration, Stabilization and Directionality'. *Research Policy* 47 (6): 1045–59. <https://doi.org/10.1016/j.respol.2018.03.009>.

Schot, Johan, and W. Edward Steinmueller. 2018. 'Three Frames for Innovation Policy: R&D, Systems of Innovation and Transformative Change'. *Research Policy* 47 (9): 1554–67. <https://doi.org/10.1016/j.respol.2018.08.011>.

Working paper <http://www.tipconsortium.net/resource/finland-transformative-innovation-learning-history-2/>

You can also browse through <http://www.tipconsortium.net/> and <https://deeptransitions.net/>.

5.2 Re-politicizing STS, Pierre-Benoît Joly, Lecture

In this last lecture, our reflection on the need to re-politicize STS will lead us to collectively work on the power/knowledge nexus. It will also lead us to reflect on our stances as academic scholars and on the issue of production of actionable knowledge.

2 chapters of the Handbook of STS, Fourth Edition. Edited by Ulrike Felt, Rayvon Fouché, Clark A. Miller, and Laurel Smith-Doerr.

- Chapter 11: Structural Inequality and the Politics of Science and Technology 319
David J. Hess, Sulfikar Amir, Scott Frickel, Daniel Lee Kleinman, Kelly Moore,
and Logan D. A. Williams
- Chapter 22: A Critical Theory of Technology 635
Andrew Feenberg

Stirling, A., 2019. "How deep is incumbency? A 'configuring fields' approach to redistributing and reorienting power in socio-material change", *Energy Research & Social Science*, 58; 101239

5.3 Reflexive Journey, part 3, plenary session

In this session, we will discuss the stances in a plenary setting. We will use different angles to identify patterns and differences across the different stances of participants. We will also reflect on the value of articulating a stance. We will also consider how a WTMC event is a particular kind of setting to pursue such a reflexive exercise. Finally, we will see whether we can connect this final reflection on stances to the set of questions and goals we had articulated in session 1.2.

5.4 Rounding off and farewells

In this final session, we will conclude the week with a concluding discussion about the observation of our anchor teacher that STS has been missing some issues. We will also wrap up the week with a special farewell to the WTMC PhDs who complete the WTMC PhD training programme with this Winter School.

Lecturers

Pierre-Benoît Joly is an economist and sociologist, and Director of research at the National Institute of Research for Agriculture, Food and Environment (INRAE) in France. He holds a degree in agronomy (1982), a PhD in economics (1987) and the “Habilitation à diriger les recherches” (1995). From 2009 to 2015, he was the Director of the IFRIS (French Institute for Studies of Research and Innovation in Society) and of Labex (Laboratory of Excellence) SITES. He was then the founding director of LISIS, the interdisciplinary lab for research on science and innovation in society, based at Université Paris Est. Since January 2020 he is Regional Director of INRAE for the area Occitanie-Toulouse. His research activities are focused on the governance of collective risks, socio-technical controversies, the use of scientific advice in public decision making and the forms of public participation in scientific activities. He was Member of the expert group “Science and Governance” at the European Commission and of the Council of European Association for the Study of Science and Technology (EASST). He is currently Member of the Council of the Science and Democracy Network, of the French Academy of Technology, and of the French Academy of Agriculture. He has published about 120 articles (of which more than 70 in refereed journals), six books and he has coordinated five special issues of social sciences journals. He lectures at Ecole des Hautes Etudes en Sciences Sociales (EHESS) and at Sciences Po Paris.

Ismael Rafols is a senior researcher at CWTS and associate faculty at [SPRU](#) (Science Policy Research Unit) at the University of Sussex. He develops novel approaches to [S&T indicators](#), using [mixed-methods](#) for informing evaluation, foresight and research strategies. His current focus is on research priority setting, for societal challenges such as [bird flu](#) or [obesity](#), or [Sustainable Development Goals \(SDGs\)](#), particularly in [health](#) and [agriculture](#).

Ismael has been involved in initiatives on ‘responsible metrics’, such as the [Leiden Manifesto](#), the [EC Expert Group on Open Science Indicators](#), on or discussions on biases [against research in ‘peripheral’ topics and regions](#). Previously, he had developed indicators and mapping methods for the [evaluation of interdisciplinary research](#), e.g. in emergent fields such as [bio and nanotechnology](#).

He received an MSc in Science and Technology Policy from SPRU (Sussex), a BSc in Physics from the Univ. Barcelona, a PhD in biophysics from Tohoku University (Sendai, Japan) and was a postdoc in nanobiotechnology at Cornell University. Before CWTS, he worked at SPRU (Sussex) (2005-12) and Ingenio (CSIC-UPV) (2012-19). In between academic positions, he has worked on international cooperation in Oxfam and the City Council of Barcelona.

Melanie Peters has a broad background in science, industry and the public sector, combined with ample experience of national and international politics and social relations. Dr. Peters studied food technology at Wageningen University, and became a certified toxicologist at Imperial College, London, where she was also awarded a PhD in biochemistry. She worked as a scientific researcher at the University of Texas at Austin, and led a research team at Shell Research and Technology Centre Amsterdam. She has held various positions combining science, policy, politics and social issues at the Ministry of Agriculture, the Dutch Consumer Association, and as director of Utrecht University’s Studium Generale scientific discussion platform.

Soraya Boudia is an STS scholar, Professor of Sociology at University of Paris. Her work explores the role of science and technology in politics and policy. Her current project is on the political economy of toxic waste (nuclear waste and e-waste). She has published with Nathalie Jas, *Gouverner un monde toxique* (Quae, 2019), and has also co-edited with her, a special issue of *History and Technology*, “Risk

and risk Society in Historical Perspective” (2007), *Toxicants, Health and Regulations Since 1945* (Pickering & Chatto, 2013), *Powerless Science? Science and Politics in a Toxic World* (Berghann, 2014). <https://www.cermes3.cnrs.fr/fr/membres/432-boudia-soraya>

Johan Schot

Johan Schot is Professor of Comparative Global History and Sustainability Transitions at the Utrecht University Centre for Global Challenges (UUGLOBE). He is Director of the Transformative Innovation Policy Consortium (TIPC) and the Deep Transitions research project. He was previously Director of the Science Policy Research Unit (SPRU) at the University of Sussex Business School in the UK from 2014-2018. Johan Schot is an academic entrepreneur that builds bridges between science and practice by applying a transdisciplinary research approach. He is working jointly with actors from different academic disciplines, policy-makers, governments, civil society, NGOs, the media and business world to address the biggest challenges of our times such as climate change and social inequality. He is the author of influential publications including *Transitions Towards Sustainable Development. New Directions in The Study of Long Term Transformative Change* (Grin, Rotmans & Schot) and *Three frames for innovation policy: R&D, systems of innovation and transformative change* (Schot & Steinmueller, 2018). For more information visit www.johanschot.com, subscribe to Professor Schot’s newsletter and follow @Johan Schot on Twitter.

About the coordinators

Anne Beaulieu is associate professor of Science and Technology Studies and director of the Data Research Centre at the University of Groningen. At Campus Fryslân, she works on creating knowledge infrastructures for sustainability and is responsible for the major Responsible Planet in the programme Global Responsibility and Leadership. She has co-edited the books *Virtual Knowledge: Experimenting in the Humanities and Social Sciences* and *Smart Grids from a Global Perspective*. She is the co-founder of the Groningen Energy Summer School for PhDs and acted as one of its scientific directors for 6 years. She is a member of the Board of Studium Generale Groningen and of the NIAS-Lorentz Advisory Board. Her book *A Critical Introduction to Data and Society* with Sabina Leonelli will appear in 2021.

Andreas Weber is an assistant professor in the [department of Science, Technology and Policy Studies \(STePS\)](#). Most of his research and teaching examines the relationship between **Science, Technology and Culture (=STC)** from a long-term and global perspective. Andreas has a special interest in the history of natural history and chemistry in insular Southeast Asia and Europe. This includes research into how [computational technologies](#) can be used to increase access to and learn from biodiversity heritage collections gathered in former colonial areas. His research in the digital heritage domain also allows him to reflect upon how the growing use of computational technologies impacts research in the humanities, and, more generally, our understanding of culture and technology in society. Andreas holds a MA degree (2005) and a PhD, both from Leiden University (2012). In 2015-2016, Andreas was a John C. Haas fellow of the [Science History Institute](#) in Philadelphia. Andreas has also obtained a 1. Staatsexamen (=first degree in teacher's training to teach at German gymnasias) in History and German Language and Literature from the University of Bamberg (2006).

PhD Presentations

Session 1

Tessa Roedema, respondent: Sarah Rose Bieszczad

Hanna Stalenhoef, respondent: Ivan Veul

Georgiana Kotsou, respondent: Irene Niet

Session 2

Marion Pinzon-Camargo, respondent: Ying Ying Han

Irene Niet, respondent: Lorenzo Olivieri

Natascha van Bommel, respondent: Mario Pinzon-Camargo

Session 3

Ruth Falkenberg, respondent: Selen Eren

Lea Beiermann, respondent: Jackie Ashkin

Zahar Koretsky, respondent: Irene Niet

Participants

No.	First name	Surname	University/ Organisation	What is the topic of your research (5 lines)?
1	Mario	Pinzon-Camargo	University of Twente	This research is about the role of the institutional entrepreneurs in inclusive innovation initiatives supported by public entities in emerging economies. The theoretical framework is built upon institutional entrepreneurship theory, path dependence, and inclusive innovation. A six cases study is under development by using a qualitative approach. Those cases are from different regions in Colombia.
2	Jing	Wang	Radboud University	My project aims to understand how the notion of research quality is framed in different countries, and in the Chinese publication system in particular. The research is designed to investigate the mechanism of journal quality assessment, which the following questions are included, how journal indicators become established in China, how journal indicators as a quality proxy are performed for various secondary aims in China, and how journal quality is challenged in China.
3	Carla	Greubel	Utrecht University	My research is situated at the intersection of STS and Age Studies. Drawing on ethnographic fieldwork, participant observation in (remote) stakeholder co-creation workshops, and interviews, it analyses material discursive practices of valuing the “good later life” as they are enacted by elderly citizens and stakeholders within the European Smart Living Environments Large Scale Pilot (LSP) project GATEKEEPER as well as in EU and regional policy discourses.
4	Natascha	van Bommel	Eindhoven University of Technology	My research project focuses on community energy initiatives and their contribution to energy justice and a just energy transition. Community energy can have a positive impact on energy justice, for example among its members, but this is not eminent. Furthermore, their broader impact on energy justice, in a region, a state, or even worldwide, is not reflected on properly in literature. I research the relationship between both concepts with both literature analyses and qualitative research methods.
5	Annemarie	Horn	Vrije Universiteit Amsterdam	My PhD research is about training for transdisciplinary research. This includes processes for interdisciplinary, transdisciplinary, and cross-cultural knowledge integration.
6	Tessa	Roedema	Vrije Universiteit Amsterdam	The current science communication ecosystem is at a pivotal moment in its evolution. The boundary between science and society have become transgressive arenas, in which boundaries between the two have become blurred. In addition, the rise of digital communication platforms have presented us with opportunities as well as new challenges. New actors have entered public discussions on science. My PhD thesis focuses on interactions between scientists, science communicators and citizens and therewith aims to contribute to opening-up and increasing reflective practice regarding public discussions on science.
7	Chiara	Carboni	Erasmus University Rotterdam	My PhD aims at finding ways to facilitate the organizational embedding of new digital healthcare technologies by focusing on their implications on individual professionals and the formal and informal organization of healthcare.
8	Niko	Wojtynia	UU	Transition to a regenerative agri-food system in the Netherlands
9	Zahar	Koretsky	Maastricht University	Technology phase-outs

10	Lea	Beiermann	Maastricht University	Lea's PhD project investigates the history of microscopy in the mid- and late nineteenth century. It looks at how microscopists built and used infrastructure to exchange scientific observations.
11	Wouter	Van Rossem	University of Twente	European migration and border control has increasingly digitized over the last decades with the creation of a complex data infrastructure for capturing the digital identities of people on the move. Recent developments to this digital infrastructure aim to improve the quality of the data of the stored identities by connecting previously unconnected databases and identities. In my research I therefore ask how different forms of data quality shape and are shaped by this data infrastructure. To answer this question I take an interdisciplinary approach which combines methods from document analysis, network analysis and ethnographic fieldwork. The research is part of the European Research Council funded project ""Processing Citizenship.
12	Selen	Eren	University of Groningen	I am studying how bird ecologists create knowledge claims in contemporary knowledge infrastructures where the emerging and long-standing data collection and analysis techniques are used at the same time, as well as how to contribute to such knowledge infrastructures to make them more credible in a less positivist sense.
13	Georgiana	Kotsou	Maastricht University	Studying scientific conference culture by analysing the role of rituals and routines in academic community formation and knowledge production. The research focuses on international chemical conferences of the early and mid-20th century.
14	Mariia	Denisova	Maastricht University	Healthcare, markets and informality in post-Soviet Russia. The project concerns accessibility of quality medicines and health care to patients and accessibility of the Russian market to healthcare organizations.
15	Olga	Temina	Maastricht University	In my research I will study informalities in the post-Soviet healthcare and/or pharmaceutical market. STS theoretical framework will be comprehensively connected to the studies of informal. Methodologically the research will be qualitative.
16	Yingying	Han	Radboud University	Validity and integrity in natural sciences
17	Ivan	Veul	Radboud University	My PhD project focuses on the democratization of Google's collection and usage of personal data. I inquire into the current political situation surrounding Google's data practices through the theoretical lenses of displaced politics and issue-centric politics. In my inquiry, I focus on what form(s) of democratization exists currently: what issues are articulated regarding Google's data practices, which publics articulate those issues and what is done with those issues and publics? Finally, I will use methods from RRI and (C)TA to organize interventions that focus on the question: What should the democratic situation of Google's data practices look like?
18	Irene	Niet	Eindhoven University of Technology	Governance of AI in the energy transition (Dutch electricity)
19	Andre Luiz	Brasil Varandas Pinto	Universiteit Leiden	In order to contribute to the continuous evolution of assessment practices of the Brazilian System of Research and Graduate Education, my research combines Scientometrics and Public Policy in order to upgrade the current evaluation model adopted, valuing the country's strengths while acknowledging and addressing its weaknesses.

20	Jackie	Ashkin	Universiteit Leiden	My research explores the relationship between (e)valuation practices and knowledge production in ocean science, focusing (hopefully) on scaling, imaginations, and knowledge infrastructures. This research is part of the European Research Council project FluidKnowledge, lead by Prof. Dr. Sarah de Rijcke.
21	Sarah Rose	Bieszczad	CWTS, Leiden University	How institutional and infrastructural evaluative contexts shape research on the deep sea across four European national marine institutions.
22	Hanna	Stalenhoef	Erasmus University	Regionalisation of elderly care in The Netherlands
23	Nienke	van Pijkeren	Erasmus University	In my PhD trajectory I study care practices in peripheral areas. More particularly I focus on the provision of elderly care services in peripheral areas and how quality and competences of care are negotiated.
24	Yoren	Lausberg	University of Bologna	I study the digital European infrastructures in place for migration management/alterity processing (making migrant Europe-legible). In this, I look into dynamics of maintenance and coloniality, as these operate in the (everyday) politics and use of infrastructures.
25	Lorenzo	Olivieri	University of Bologna	My research focuses on the strategies of technological resistance exerted by migrants in the context of EU migration control. More specifically, I enquire how migrants' identities are inscribed into data infrastructures for migration managements and the possibilities of resistance to/appropriation of/dis-inscriptions from such infrastructures
26	Ruth	Falkenberg	University of Vienna	In my project, I am exploring through a close and long term collaboration with three research groups from the crop and soil sciences, how the researchers take decisions in their work, and how different valuations are intertwined here. Specifically I am interested in how relevance to socio-environmental challenges is envisioned and put into practice (or not) within their multi-dimensional epistemic living spaces.
27	Aixa Y	Aleman-Diaz	Aleman-Diaz	My research is about the configuration of science advice in policymaking and the limitations this places on the possibilities of the science it aims to shape. It aims to reveal the contested ways in which sociotechnical futures in nanotechnology are strategically deployed and turn a gaze towards the knowledges that produce them.
28	Thibault	Ponchon	Université Grenoble-Alpes (UGA) - CNRS	My PhD is funded by the Quantum Engineering Grenoble program and focuses on quantum technology (QT) development. This is a STS research combining sociological and philosophical approaches. As a “deep-tech”, QT is characterized by promising industrial potentials and a complex R&D process, which addresses questioning about the technological transfer from basic research to industrial development. Clustering the stakeholders in technological hubs is adopted as the appropriate strategy to reinforce the cooperations and fortify these technological promises. This project studies how this type of management is realized and how it impacts the usual organization and functioning of science and industries.
29	Bettina	Graupe	Radboud University Nijmegen	Current efforts to build a synthetic cell from scratch promise better understanding of ‘life’ and possible new biotechnological tools for medical, industrial, and research applications. However, the synthetic cell also confronts us with many uncertainties and potentially new ethical, societal and policy questions. My project explores how anticipatory and inclusive governance approaches around the synthetic cell, amongst others for ‘more and better’ interaction between science and society already during the research and development phase, are being shaped. Through qualitative document analysis, in-depth interviews, and participatory observations in deliberative spaces I study how the meaning (including expectations

				and dilemmas) of the synthetic cell is articulated; how, in relation to synthetic cell development, different roles and responsibilities are assumed and ascribed, and; the conditions and challenges of public participation around the synthetic cell. Ultimately, I will also reflect on the impact of social scientists in this anticipatory process and propose tentative recommendations for moving forward with the governance of the synthetic cell.
30	Dirk	Van de Leemput	Maastricht University	I study how maintainers of the technology in time-based media artworks care for both the technology and art of these works. By studying the care practices around three technologies (16mm film, CRTs and software), I investigate how the social and material order around these technologies and art works is maintained.
31	Nadja	Fgrell Trygg	Umeå University	Intersectional mental health inequalities in Sweden and how different theories and methods can be applied to intersectionality research and inform public health policy and practice.
32	Gro	Thorbjørn Berg Sørensen	Technical University of Denmark	I am investigating how socio-cultural differences affect the ways AI and Responsible Technology are defined, perceived and enacted across cultures. Through a comparative case study of the government-endorsed networks articulating the ethics of AI in Denmark and China, the research will focus on differences and similarities in the meanings ascribed to AI, as well as the responsible development and use of technology.
33	Florian	Helfrich	University of Twente	Investigating the governance of techno-social transformations, examining the implementation of blockchain-based platforms and infrastructures for energy markets and local communities.
34	Julio	Zarate	Genetic Engineering and Society Center	Agricultural biotechnology has played a controversial role in addressing some of the UN Sustainable Development Goals related to hunger. The International Potato Center (IPC), part of the CGIAR, is a Peruvian research center that provides improved genetic material to potato growing regions in developing countries. This research will examine the ways in which IPC relies on food security narratives and scientific collaboration to conduct research despite the current GMO moratorium extension in Peru.
35	Edoardo	Salvemini	TU Eindhoven	Technology standardization
36	Syb	Kuijper	Erasmus University	In the project we explore different components of nursing work, the valuation of the profession among both nurses themselves and other stakeholders and how these different socio-technical practices of valuation evolve and interact. Particular attention is paid to the context and dominant discourses in which the professionalization of nursing work takes place.

PhD Presentation guidelines

For presenters

- Send the title & summary of your presentation to the discussant assigned to you at least 1 week before the start of the Winter School.
- The Canvas conferencing system which we will be using (= BigBlueButton) allows you to share your presentation as PDF. Please be aware that this means that animations are not preserved. If you want to include animated items please spread out animations across a series of slides. Sharing video material is difficult through BigBlueButton. Please copy a link to video material (e.g. on YouTube) in the chat so that participants can watch it locally.
- The duration of your presentation should be **15 minutes**. Then there is another 15 minutes for the discussant and plenary discussion. We keep time very strictly.
- Try to make a sophisticated choice on what you want to present. One typical pitfall is wanting to give an overview of your whole PhD project, which leads to an unfocused and overloaded presentation. Rather select an interesting aspect of your research and discuss it in-depth.

For discussants

- Make sure you receive the title & summary of the presentation at least 1 week before the start of the Winter School. Contact the presenter if needed.
- Present your comments in **5 minutes** max.
- Mind that being a discussant is not about pointing out all the flaws in the presenter's argument, but about setting the stage for a constructive discussion. Offering critique is good, but also try to bring out what the potentials of the argument are for improvement, and to identify some questions for the speaker or the group as a whole.
- You may want to get in touch with the presenter to prepare some comments. Feedback should address the quality of the presentation itself (slides, clarity, focus) as well as its content.

All others

- Listen carefully and attentively to the presentation.
- Please fill in a **feedback form** for each presentation. They can be found at the end of the reader. They will be collected and given to the presenter. We will bring spare copies for people who don't print out the reader.
- Join the discussion after the discussant has given their feedback.
- Chances are that there is not enough time to discuss all questions from the audience. Please write them down on the feedback form. Even without discussion, your questions might be very valuable for the presenter!

Feedback on Presentations

This time around, we will not be using paper forms to provide feedback but will use a digital form. More details to follow.

Points to consider when preparing feedback (you don't need to cover everything):

- Attractiveness of title and opening
- Usefulness of summary provided in the reader
- Clarity and significance of problem definition, research questions and aims (refinement of, addition to, clarification or rejection of an existing thesis)
- Use of theory and/or historiography (concepts, interpretations, etc.)
- Embeddedness in fields relevant to WTMC
- Clarity of structure
- Presentation of the method(s) employed
- Validity and reliability of the method(s) employed
- Accessibility of the research data to the audience
- Use of (intriguing and relevant) details and examples
- Clarity of argument
- Relation to the nature and level of expertise of audience
- Use of PowerPoint and other audio-visual resources
- Contact with audience and audibility of speech
- Clarity and significance of conclusions
- Response to questions and comments
- Time management

Annex 1

Digital leadership (1)

WTMC winter school 2021

Outcome of the group discussion

Presenting	Irene, Sarah, Sebastian, Lorenzo, Syb, Nienke, Natascha, Chiara, Gro
Collaborative writing	André Brasil, Nadja, Edoardo, Aixa, Mario, Jackie, Georgiana, Zahar
Facilitating/moderating meetings	Annemarie, Ivan, Mariia, Carla, Lea, Selen, Bettina, Hanna
Knowledge sharing	Tessa, Thibault, Dirk, Wouter, Florian, Olga, Ruth, Yingying, Jing

Questions for discussion in small groups (5 max):

Presenting

How can you connect in the course of a presentation?

- Body language can be hard to interpret virtually - standing up or having a zoomed out picture could enable a more expressive presentation.
- Difference between teaching and presenting your own work.
- Judging reactions easier in person,
 - Online quizzes can help create a connections/judge reactions
- There is already a difference, so you need to actively bridge this gap; you must compensate for the lack of physical presence
- Take into account that they are sitting behind a laptop and have their phone (make use of their phones via quizzes, etc.)
- Presentations need to be more visual, maybe even more than in person, to give you something while you are listening (your face now is much smaller than the slides).
- It is much easier to disseminate knowledge/presentations via recording

How can the various ways of establishing connection be used in the course of a presentation?

- A lot depends also on what type of interaction is allowed
 - Just comments
 - Audio / video
 - Whiteboards
 - Quizzes / question tools
- Short discussion intermezzos

- Rethink interaction and attention
- Slides are even more important online, you can engage through good content on the slides.
- Creating compelling narratives with slides via visuals etc. makes the presenters message more interesting.

How can you ‘configure’ your audience for connecting?

- You have to invite them to join you
- You can ask them not to mute themselves
- Give them enough, explicit cues

What has been your most rewarding experience of presenting online and what made it positive?

- Less stage fright
- A lot of reaction on quizzes.
- Voting on questions and picking out the best questions to be answered
- Able to do discussion in German for conference panel (not native language), it might have been easier because of being online, distance from the audience.
- Interviewees are more willing to help you and are a lot easier with being recorded.
- Everyone is struggling together with the new digital forms
- Being able to join a lot more conferences and connecting more frequently, because (1) no travel time, (2) better fitting in agenda, (3) no financial burdens for travel/stay (4) more people can attend.

“Playing a role” as presenter can help create a professional distance to formulate the content to the audience - making it less personal.

Collaborative writing

How has writing changed and which new possibilities does writing at a distance offer when collaboration becomes more asynchronous? How can you connect with your co-authors in writing? Which tools stand out and how do they shape writing?

- Writing paper in 6 months across continents. Recording meetings via Zoom helps keep track of discussions.
- People who opposed collaborative writing before lockdowns, have now converted. Writing not only articles, but also conference papers, policy briefs, project proposals.
- Collaborative writing is a much better alternative to exchanging .docs, esp. in-group collaborations. Avoid version control issues
- Tools:
 - Google docs (free up to certain number of collaborators). But issues with referencing and formatting.
 - Overleaf (latex) (free and can be subscription too)- for maths is good, good collaboration

- Project management to ensure collaboration. Leaders in the publication and other people have specific missions they take care of in the writing
- Record meetings can be useful to keep the track of discussions and comments. This material can be used as part of the writing process, and also to avoid repetition in the discussions.
- Note taking in meetings with what people have to do, with examples to illustrate, and have people explain what they understand are next steps for the project
- Editors matter - can help or hinder projects
- Structure can be a challenge when working with other
- Voices - how do you bring them together in one document? Do we want just one voice?

Facilitating/moderating meetings

What is challenging about moderating meetings online?

- when to interrupt/cut short?
- how to achieve true interaction/ dialogue beyond isolated statements
- participation regardless of technological limitations of participants (older people, less digitally skilled, poor connections)
- requires patience & flexibility (learning to be okay with awkward silent moments + having plan A,B,C to be more flexible when something goes wrong)
- managing two spaces at the same time (for instance mural/miro/jamboard and the conversation on the communication platform) >>> tip by Ivan: miro has video chat integrated now?
- have people define individual contributions before sharing on tools like Mural & Miro to prevent bandwagon effect, safety or an idea of where to start
- vulnerability of data collection in terms of forgetting to save or record (trust technology)
- in general; dependence on technology
- inability to have parallel conversations
- forced/ fixed nature of break-outs

How can you connect to the participants and use that connection to lead discussion?

Is more structure essential or can too much structure kill interaction?

What are some tips for turn-taking or interrupting?

- “self-regulating” of queue by hand/finger raising

Opportunities of online:

- possibility of using chat & reactions without interrupting
- involve people that feel more comfortable typing than talking

- inclusivity for people with disabilities, for instance

General tips/ learning points

- treat online platform as a new and different thing rather than trying to emulate the offline setting (Ivan)
- icebreaker such as hand-raise for different (informal) questions (Hanna)
- have people add information (pictures, text etc) beforehand? (Carla) -> actually an *opportunity* of the online setting
- Be patient, because responding can take more time
- Be prepared for things to go wrong

Knowledge sharing

Whether you are trying to connect to your project team or to a community of practice, knowledge sharing remains important even if we are less physically co-present. How can sharing still take place? Does online interaction change the dynamics? Does some knowledge circulate more easily or are some voices or types of input more easily shared?

How can sharing still take place?

- Ways of sharing knowledge with colleagues, department knowledge sharing sessions
- Newsletter example as way to share
- Organise webinars with research project
- Using a research diary & sharing with others
- “Journal club” to discuss papers with colleagues
- Finding different ways to still meet people (eg. outdoors, walk-talks)
- Informal social events online; create online coffee corner

Does online interaction change the dynamics?

- Coffee corner meetings, colleagues
- Formal vs informal ways of knowledge sharing
- Differences in amount of efforts in communicating, eg. sending a mail vs talking in corridor
- Dynamics change, eg because a lot of people are involved in chat channel etc

Does some knowledge circulate more easily or are some voices or types of input more easily shared?

Other

- Experiences, knowledge sharing
- Difference between knowledge sharing and presenting?

- Platforms for cooperation often not working well - or resistance to using new tools, or people use it in the beginning but dies out
- Discord works well for events; not for long term