Interdisciplinary International Graduate Summer School

Miramar Palace, Donostia-San Sebastián, July, 1-5, 2024

The transformation challenge: Re-Thinking cultures of research

Call for Papers

The Miguel Sánchez-Mazas Chair (University of the Basque Country UPV/EHU), the Institute for Technology Assessment and Systems Analysis (ITAS, KIT Karlsruhe) and the The Käte Hamburger Kolleg: Cultures of Research at RWTH Aachen University will be hosting an International Summer School for PhD students, titled *"The transformation challenge: Re-Thinking cultures of research"*. The Summer School is part of the 42nd edition of the UPV/EHU Summer Courses in Donostia-San Sebastián.

Keynote lecturers of the Summer School

Prof. Dr. Guido Caniglia KLI Konrad Lorenz Institute for Evolution and Cognition Research, Austria: https://www.kli.ac.at/en/people/kli_team/view/244

Prof. Dr. em. Helen Longino, Department of Philosophy, Stanford University, USA: https://philosophy.stanford.edu/people/helen-longino

Prof. Dr. Clark Miller, Global Institute of Sustainability and Innovation, Arizona State University, USA: https://sustainability-innovation.asu.edu/person/clark-miller/

Prof. Dr. Harald Rohracher, Department of Thematic Studies, Linköping University, Sweden: https://liu.se/en/employee/harro63

Presentation

Transformation is the present-day topic. Sustainability, climate change, war situations, authoritarianism, and many other major challenges are on the fore - including the insight that old recipes, convictions and strategies no longer lead to solutions without difficulty. And science makes no exception here. It appears relevant but increasingly controversial. Hopes that in knowledge societies, through the spread of knowledge, conflicts would be more easily pacified, have been largely disappointed. On the contrary, it is apparent that conflicts that are fought out with the means of scientific knowledge can deepen conflicts and ambivalences. Uncertainty and non-knowledge become much more sharply visible. Science is no longer regarded as an unchallenged problem-solving machine for social problems. Science is disputed. Science is ignored. Science is powerful and at the same time powerless.

How does this ambivalent positioning of science relate to questions of transformation? “Transformation”, conceived as a project and a mission (and not just as a set of evolutionary processes of societal change), is closely linked to the development of science. In order to analyze and shape transformation, the conditions, varieties and changes affecting scientific knowledge production in contemporary societies need to be better understood (e.g., situated, evidence-based, transdisciplinary, participatory modes of knowledge production). The following are some illustrative examples of all this:

I. Knowledge production is changing from *within*. New, digital technologies for data collection and evaluation enabled by AI algorithms are increasingly used to solve complex research tasks. These have the potential to shift fundamental coordinates of scientific knowledge production. Issues such as limited reproducibility or non-transparency (e.g., as a result of the use of software; Hocquet/ Wieber 2021) are common here.

II. New criteria regarding inclusion, solutions and future direction come into play

as new relevance requirements for science become increasingly important or even necessary. This brings a particularistic unrest into the system of knowledge production, where context-related, not generally applicable methodologies and solutions are becoming gradually more relevant (e.g., within living labs or anticipatory research practices).

III. Post-colonial studies and feminist Science Technology Studies (STS) vindicate the importance of taking into account factors such as standpoint-binding and representation in order to understand knowledge production in the light of issues such as epistemic injustice, raced-gendered scientific dynamics, or the development of alternative non-Western forms of knowing (Harding 2016; Adams 2021). These multi-layered representation-related factors concern not only individuals but also groups or collectives. Pointedly: Do different cultures of "scientificity" (e.g., Böschen et al. 2020) emerge in sectoral and global comparisons?

IV. Science in transformation is increasingly becoming an engaged science. This seems to shift the balance between distancing and engagement. For instance, under innovative initiatives such as living labs with citizens, science leaves the special institutional experimental spaces and co-creates research and solutions together with societal actors (e.g. Engels et al. 2019).

Aim & Main Topics

The aforementioned indications of problematization can be precisely illuminated through the lens of the concept of *"cultures of research"* (Knorr Cetina 1999). More precisely, this summer course will be addressing the following question: *To what extent are cultures of research and their legitimizing basis changing and to what extent is their change an expression of transformative changes in society?*

Based on the analysis of those interrelationships, the summer course will address the following issues (without exhaustion):

a. ***Transformation of science***: What changes are emerging within science itself? How can these be characterized as changes in cultures of research?
b. ***Transformation through science***: Science is considered as a major driver of transformation. What phenomena and examples can be used to illustrate this hypothesis?
c. ***Science in the midst of transformation***: Social change is seen as an essential strand of solutions in so-called "grand challenges". Which forms of transformation and which forms of science correlate?
d. ***Overall*****:** How do these strands of transformation interact with each other? Do different varieties of science emerge depending on where problem-solving processes take place? What does this implicate for the transformative challenge of, and for, science on interregional, international-global and intercultural scales?

References

Adams, R. (2021): Can artificial intelligence be decolonized? *Interdisciplinary Science Reviews* 46:1-2, 176–197.

Böschen, S.; Hahn, J.; Krings, B.-J.; Scherz, C.; Sumpf, P. (2020): 'Globale Technikfolgenabschätzung'? Konvergenzen und Divergenzen kosmopolitischer Wissenschaftsdynamiken. In: *Soziale Welt*, Sonderband 24, S. 332-365.

Engels, F.; Wentland, A.; Pfotenhauer, S. (2019): Testing future societies? Developing a framework for test beds and living labs as instruments of innovation governance. In: *Research Policy*, 48 (9), 103826.

Harding, S. (2016): *Whose Science? Whose Knowledge? Thinking from Women's Lives*. New York: Cornell University Press.

Hocquet, A.; Wieber, F. (2021): Epistemic issues in computational reproducibility: software as the elephant in the room. *European Journal for Philosophy of Science*, 11(2), 38.

Knorr Cetina, K. (1999): *Epistemic Cultures. How the Sciences Make Knowledge*. Cambridge, MA: Harvard University Press.

Concept

The Summer School provides PhD students with the opportunity to develop their projects in a stimulating working atmosphere and in an international context. We aim at an inspirational environment for learning and discussion that ensures excellent feedback on everyone's work. In formats such as "Lecture", "Individual Presentation", "Workshop" and "Poster Presentation", a varied intellectual experience shall be created. At the same time, Donostia-San Sebastián provides participants with the opportunity for a week of relaxed interchange, discussion and networking with experienced scholars and other PhD students.

- ***Lecture:*** Established scholars will present their basic positions in lectures.
- ***Individual Presentation:*** This format consists of a 30 minutes paper, in which PhD students present their project to the plenum. A senior scholar will provide comments on the presentation, based on a previously submitted paper- and the presentation will then be discussed in the plenum.
- ***Workshop:*** In a workshop, problems of relevance to the work of the PhD students will be addressed and discussed in small groups. Each group will be chaired by a researcher with considerable experience in the relevant field. In this intense format, the students will be able to submit and discuss their own concrete problems.
- ***Poster Presentation:*** PhD students bring a poster showing the key questions and issues related to their work. Creative designs are encouraged. The posters will be featured in a special session, presented in a Flash Talk and facilitate the mutual learning in the group.

The language of the Summer School will be English. On successful completion of the Summer School, the graduate will receive a certificate of attendance.

Registration

The Summer School is open to PhD students at various stages of progress in their dissertation project. Please apply by sending us, at the latest by January 15th 2024, an abstract of max. 3.000 characters outlining your PhD project and in particular the background to the problem discussed, research questions as well as the methods and theoretical approaches to be adopted, together with a CV.

Please send your suggestions to Bettina-Johanna.Krings@kit.edu. Applicants will receive notification of acceptance by February 4th 2024.

Participation in the course is free of charge. Unfortunately, the organizers cannot cover any travel or accommodation costs. We would like to draw your attention to national sponsorship institutions like the DAAD (German Academic Exchange Service) in the case of Germany, who offer training course scholarships for students. In some cases, there might be the option of sponsorship by KIT (KHYS). Please contact your university's international office for further information on scholarships available in your country.

Organizers: Stefan Böschen (RWTH/Käte Hamburger Kolleg Cultures of Research), Andoni Ibarra (UPV/EHU), Bettina-Johanna Krings (ITAS/KIT), Andreas Lösch (ITAS/KIT), and Hannot Rodríguez (UPV/EHU).