

## Call for Papers

Interdisciplinary International Graduate Summer School  
at the University of the Basque Country UPV/EHU,  
Donostia-San Sebastian, Spain,  
from 28 July to 1 August 2014

The Post-Graduate Program in Philosophy, Science and Values (University of the Basque Country UPV/EHU, and National Autonomous University of Mexico, UNAM) and the Institute for Technology Assessment and Systems Analysis (KIT/ITAS) will be holding an International Summer School for PhD students. The Summer School is part of the UPV/EHU XXXII Summer Courses and XXV European Courses. Under the scientific supervision of Professor Andoni Ibarra (UPV/EHU) and PD Dr. Stefan Böschen (KIT/ITAS) and PD Dr. Andreas Lösch (KIT/ITAS), the subject of the Summer School will be:

### **The Regulative Capacity of Knowledge Objects: Opening the Black Box of Knowledge Governance**

Think of Climate Change, Wikileaks, nanotechnology, Responsible Innovation, neural implants, Linux, GMOs or the German Energy Transition. But when we think about it, do they actually exist? And if they do what should they be like in the future? What exactly are they? Are they symbols, technical artifacts, discourses, constellations of actors, scientific disputes? Are they political issues, societal problems, human-nonhuman-hybrids, modifiers of existence, problems for governance and regulation? In a way, they are all of these things and less – and probably more.

They are what this Summer School refers to as “knowledge objects”. These objects are peculiar, blurry, constantly unfolding and transforming entities that increasingly challenge contemporary societies and sciences and our understanding of knowledge. The knowledge in knowledge objects is always plural: scientific, public, mundane, interdisciplinary, speculative, uncertain. It is heterogeneously produced about, with, through or in them and contributes to their identification, contestation and transformation. Yet, knowledge objects are also enablers of such knowledge productions and the societal controversies that go along with them. This intricate entanglement of knowledge objects and society poses various normative and regulative questions – which are part of these objects and due to them the problems societies face. This entanglement could be viewed as a fundamental challenge for knowledge governance. To address these complex challenges to societies and sciences, the Summer School aims to bring together two strands of science and technology studies (STS) which so far haven’t combined: the focus on “knowledge objects” and the perspective of “knowledge governance”.

**The starting point of this summer school is the assumption that knowledge objects are subject and object of knowledge governance. They create the need for and they enable various forms of knowledge governance. In a way, this synchrony is a black box of knowledge governance. The Summer School proposes that this “governance black box” can be opened by focusing on an extended concept of knowledge objects and by analyzing their governance dimensions.**

Therefore, the aim of the Summer School 2014 is to untangle the relationship between knowledge objects and governance phenomena. The Summer School invites contributions from different disciplines (e.g. sociology, philosophy, political science, ethnography) that focus on the empirical and/or conceptual-theoretical analysis of this correlation.

### ***Theoretical background***

Traditionally knowledge objects are a topic of sociological laboratory studies and the history and philosophy of sciences. Such research has focused on the construction and functions of knowledge objects as “epistemic things” in processes of scientific knowledge productions (Rheinberger 1997). Knowledge objects have been conceptualized as “boundary objects” which enable coordination in processes of inter- and transdisciplinary cooperation (Star 2010). Further, recent studies on “technoscientific objects” (Bensaude-Vincent et al. 2011) have stressed that such objects always combine knowledge productive and coordinative practices between science, technology and society. Following many authors in STS-research this constitutive importance of knowledge objects is not limited to the spheres of scientific knowledge production and coordination. Knowledge objects are viewed as enablers of various knowledge processes in all spheres of society (Latour 2013 Knorr-Cetina 1997). In sum: STS-research on the constitutive and coordinative role of knowledge objects increasingly extends its view on such knowledge objects from scientific processes to their role in knowledge production and coordination in all of society. The Summer School follows this widening, but questions the specific challenges emerging by this expanding regarding knowledge governance research.

STS research on “knowledge governance” (Guston 2010; Jansen 2007; Grande et al. 2013; Stehr 2005) is traditionally confronted with consequences of pluralization, uncertainty, and competition of the relevant knowledge available (e.g. competing expertise, non-knowledge, unregulated knowledge-production), as well as in its coordination through highly heterogeneous measures to coordinate (e.g. interdisciplinary cooperation, the integration of knowledge cultures, transdisciplinary stakeholder and citizen participation). In this research strand consequently the question arises: What are the conditions, functions and consequences of governance of and through uncertain, hybrid, heterogeneous forms of knowledge? From the viewpoint of the Summer School, only the extended view of knowledge objects, in the sense that we can analyze them simultaneously as creators of need for and enablers of knowledge governance can shed light on these unsolved research questions.

### ***The Governance dimensions***

#### **Governance dimension 1: knowledge objects are regulated**

The continuous production of (new) knowledge objects with a simultaneous increase in standards of risk prevention contributes to new conflicts and necessities of decision-making, which cannot be regulated sufficiently by the existing normative and legal frameworks (Stehr 2005). This diagnosis leads to the question of what forms of regulation can be developed for these – often controversial – knowledge objects (Rabinow/Bennett 2012). For example, how are risks and innovation potentials of nanotechnology (scientific objects, nanoproducts, nanoparticles) dealt with (Nordmann 2010; Barben et al. 2008)? What new aspects of knowledge objects are currently being addressed in scientific and public conflicts and are considered to require regulation (e.g. in preimplantation genetic diagnosis, with regard to the energy transition or innovations in the name of sustainable development)? What role do civil society actors increasingly play in the coordination of technological risk management?

#### **Governance dimension 2: knowledge objects are used for regulation**

Since knowledge objects are unfinished, they themselves can be used for regulation. Knowledge objects are a subject of political interests (e.g. debates on climate change, the regulation of the tobacco industry). For example, the knowledge object GMO (genetically modified organism) contains, in addition to unknown knowledge (long-term effects, interactions, social implications), certain (scientific and technological) knowledge, which enables the formulation of high standards of evidence. Such articulated standards can contribute to establishing (basically unachievable) thresholds for regulatory action, with the effect that regulations cannot be enforced for a long time. Therefore, the unfinished character of

knowledge objects not only legitimizes regulation, but also continuously produces new needs for it, articulated in objects such as visions, images or risk assumptions (Schaper-Rinkel 2013; Lösch 2008; Kaiser et al. 2010). How are knowledge objects used for regulation? What typical knowledge-political conflicts arise in the respective conflict areas (e.g. struggles around the interpretation of knowledge objects)? What is the role of principles and practices of organizing transparency and participation? How can and should these be further developed?

### **Governance dimension 3: knowledge objects regulate**

The differentiation of the production of knowledge objects has the effect that actors dealing with the respective knowledge object develop forms of regulation in their cooperation practices that are determined by their knowledge objects themselves (e.g. energy transition via smart meters, projects of open source design). Thus, many knowledge objects have implicit regulating effects, which can widely vary: one can think of the regulating effects of search engines or of new “scientific metrics” which regulate emergent processes without explicit knowledge of the actors involved. In the areas of open source design, the transparent design of the knowledge objects, kept accessible through respective licenses, is a condition of their global and collective production. This raises the question: how does the continuous production of knowledge objects regulate the knowledge objects themselves?

### **References**

- Barben, D. et al. (2008): Anticipatory Governance of Nanotechnology: Foresight, Engagement, and Integration. In: Hackett, E.J. et al. (eds.): Handbook of Science and Technology Studies, Third Edition. Cambridge, pp. 979-1000.
- Bensaude-Vincent, B., et al. (2011): Matters of Interest: The Objects of Research in Science and Technoscience. In: Journal for General Philosophy of Science, Vol. 42, pp. 365–383.
- Grande, E. et al. (eds.) (2013): Neue Governance der Wissenschaft: Reorganisation – externe Anforderungen – Medialisierung. Bielefeld
- Guston, D. (2010): The Anticipatory Governance of Emerging Technologies. In: Journal of the Korean Vacuum Society Vol.19 No.6, pp.432-441.
- Jansen, D. (ed.) (2007): New Forms of Governance in Research Organizations – Disciplinary Approaches, Interfaces and Integration. Dordrecht
- Kaiser, M. et al. (eds.) (2010): Governing Future Technologies. Nanotechnology and the Rise of an Assessment Regime. Dordrecht
- Knorr-Cetina, K. (1997): Sociality with Objects: Social Relations in Postsocial Knowledge Societies. In: Theory, Culture & Society 14, pp. 1-30.
- Latour, B. (2013): An Inquiry into Modes of Existence: An Anthropology of the Moderns. Harvard
- Lösch, A. (2008): Anticipating the Futures of Nanotechnology. Visionary Images as Means of Communication. In: Fisher, E. et al. (eds.): Yearbook of Nanotechnology in Society, Vol. 1, New York, pp. 123-142.
- Nordmann, A. (2010): Philosophy of Technoscience in the Regime of Vigilance. In: Bowman, D. et al. (eds.): International Handbook on Regulating Nanotechnologies. Cheltenham, pp. 25-45.
- Rabinow, P.; Bennett, G. (2012): Designing Human Practices: An Experiment with Synthetic Biology. Chicago
- Rheinberger, H.-J. (1997): Toward a history of epistemic things: synthesizing proteins in the test tube. Stanford, CA
- Schaper-Rinkel, P. (2013): The role of future-oriented technology analysis in the governance of emerging technologies: The example of nanotechnology. In: Technological Forecasting and Social Change 80(3), pp. 444-452.
- Star, S.L. (2010): This is not a boundary-object: reflections on the origin of the concept. In: Science, Technology & Human Values 35, pp. 601-617.
- Stehr, N. (2005): Knowledge Politics: Governing the Consequences of Science and Technology. Boulder

**Keynote lecturers (confirmed):**

David Guston, PhD, Professor of Political Science, Arizona State University, US

Graham Harman, PhD, Professor of Philosophy, American University, Cairo, Egypt

Karin Knorr-Cetina, PhD, Professor emeritus of Sociology, University of Constance, Germany, and George Wells Beadle Distinguished Service Professor, University of Chicago, US

Noortje Marres, PhD, Senior Lecturer, Goldsmiths University of London, UK

**Discussants (confirmed):**

Mario Kaiser, PhD, University of Basel, Switzerland

Astrid Schwarz, PD PhD, University of Darmstadt, Germany

Petra Schaper-Rinkel, PhD, Austrian Institute of Technology, Vienna, Austria

**Concept**

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

- "Lecture": Established scientists will present their basic positions in lectures. For a list of professors who have agreed to give lectures, and the lecture subjects, please visit our website [www.itas.kit.edu/summerschool2014](http://www.itas.kit.edu/summerschool2014).
- "Individual Presentation": This format consists of a 30 minute paper, in which PhD students present their project to the plenum. A senior scientist will provide comments on the presentation, on the basis of a previously submitted paper, and the presentation will then be discussed in the plenum. PhD projects presented in this framework should already be in an advanced stage.
- "Workshop": In the 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 scientist with practical experience in the relevant field. In this intensive format, the students will be able to submit and discuss their own concrete problems.
- "Open Discussion": This will be an experimental format in which participants explore governance issues in relation to exemplary knowledge objects which are related to the area of San Sebastian.
- "Poster Presentation": Each PhD student shall bring a poster showing the key questions and issues related to their work. Creative designs are encouraged. The posters will feature in a special session 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 on their dissertation project, and offers two forms of participation: graduates may take part either in combination with a proposed individual presentation or without their own presentation.

To apply for participation with individual presentation, please send us, at the latest by March 28<sup>th</sup> 2014, 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. Participants are expected to submit a full paper by June 6<sup>th</sup> 2014. To apply as participant without individual presentation, please send us, at the latest by April 4<sup>th</sup> 2014, an abstract of max. 1.500 characters briefly outlining your PhD project, together with a CV.

Please send your suggestions to Constanze Scherz (email: [scherz@kit.edu](mailto:scherz@kit.edu)). Applicants will receive notification of acceptance by May 15<sup>th</sup> 2014.

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. Please contact your university's international office for further information on scholarships available in your country.

Further information: [http://www.itas.kit.edu/english/events\\_2014\\_summerschool.php](http://www.itas.kit.edu/english/events_2014_summerschool.php)