

About the Authors

Alla Bolotova

Email: xnu@indepsores.spb.ru

Alla Bolotova was born in Kovdor, Murmansk Region, Russia. She studied environmental geochemistry at the State University of St. Petersburg, where she graduated in 1998. She also completed a Master's programme in sociology at the European University at St. Petersburg. Since 1999, she has been a PhD candidate at the Department of Sociology and Political Science at this University. The title of her thesis is 'The Environmental Movement in Russia: Politics of Everyday Life'. She received funding from the Heinrich Böll Foundation for her dissertation project (Youth Scientists Programme, 1998–2000). From February to May 2002 she was a Fellow at the Alexander Institute, Helsinki University (TEMPUS exchange programme). She has worked as a Research Associate at the Centre for Independent Social Research (Environmental Sociology Group), St. Petersburg since 1997. Her main research interests are: environmental sociology, environmental history, sociology of social movements, and sociology of everyday life.

From October 2003 to June 2004, she was a Fellow at the Institute for Advanced Studies on Science, Technology and Society (IAS-STs) in Graz.

Selected Publications

(1999) with M. Tysiachniouk, 'Environmental activism in the St. Petersburg Region', in M. Tysiachniouk and G. McCarthy (Eds.), *Towards a Sustainable Future: Environmental Activism in Russia and the United States. Selected Readings*, St. Petersburg: 191–209.

(1999) with M. Tysiachniouk and D. Vorobyev, 'Analysis and classification of environmental non-governmental organisations in St. Petersburg', in E. Zdravomyslova and M. Tysiachniouk (Eds.), *Environmental Movement in Russia*, Vol. 6, Centre for Independent Social Research: 13–33 (in Russian).

(2002) with D. Vorobyev, 'The socio-economic context of environmental issues in mill towns. Local case study: Svetogorsk pulp and paper mill',

in J. Kortelainen and J. Kotilainen (Eds.), *Ecological Modernization in Russia*, Joensuu: Karelian Institute: 97–108.

(2002) 'Environmental politics of everyday life', *Social Science and Modernity* 1 (in Russian).

(2002) 'Ecological settlements: Between city and village. Propagation of new cultural codes in modern Russia', *Journal of Sociology and Social Anthropology* 1 (in Russian).

(2004) 'Colonization of nature in the Soviet Union: State ideology, public discourse, and the experience of geologists', *Historical Social Research* 29 (3): 104–123.

(2004) 'Environmental commune: Everyday activism', in V. Voronkov (Ed.), *Ecological Settlements in Russia and USA*, Vol. 10, Centre for Independent Social Research (in Russian).

Project Abstract

Social Constructions of Nature: Soviet Geologists as Professional 'Conquerors of Nature'

The research project deals with the analysis of historical and social constructions, which underlay interaction with nature in Soviet society. I try to understand connections between socio-historical changes and transformation of constructions of nature. How are models and schemes developed by the state, realised and transformed in society, in public discourse and in everyday life practices? The main methodological framework of this project is the methodology of discourse analysis. I am looking at different discourses on nature and on practices of interaction with nature at both micro and macro levels.

At the macro level, I analyse the hegemonic discourse of the Soviet state and its activity in the 'conquest of nature'. The idea of the conquest of nature was an important ideology for the Soviet government. The struggle against the capitalist world was equated with the struggle against nature, nature was seen as an enemy. The analysis at the micro level is based on a case study of the professional community of geologists. I analyse ways in which the environment is being embodied, valued and experienced in an array of social practices in this particular social milieu. The professional community of 'Soviet geologists' is very illustrative for those purposes.

'Soviet geologists' were of significant strategic importance for Soviet power in that they paved the way to the exploitation of natural resources. And, on the other hand, the geological profession achieved a cult status in Soviet society in the 1960s. The character of the geologist was often used in films, literature, paintings and personified at the same time courage, 'closeness to nature' and power over nature.

Investigations include the historical analysis of geological surveys in the USSR, analysis of newspapers, film and fiction of the Soviet period, and analysis of biographical interviews, autobiographies, reminiscences and diaries of field geologists. The period of research: 1930s–1980s.

Adrian Ely

Email: a.v.ely@sussex.ac.uk

Education: 2001; University of Sussex, SPRU, DPhil – Science and Technology Policy. Thesis title: 'Regulatory Appraisals of Bt Maize: A Study of Science in Governance'. 2000–2001; MSc, Plant Biotechnology for Emerging Economies, Sussex, UK. 1994–1997; MA, Natural Sciences, University of Cambridge, UK.

Adrian Ely spent October and November 2003 as a Fellow at the IAS-STs in Graz.

Selected Publications

(2001) with P. Mwangi, 'Assessing risks and benefits: Bt maize in Kenya', *Biotechnology and Development Monitor* 48 (6–9), www.biotech-monitor.nl/4803.htm.

(2003) 'Evaluation of environmental risks of Bt maize in the US and EU: Lessons and challenges for Kenya', Institute for Development Studies, Brighton, UK, available at <http://www.gapresearch.org/governance/AEMaizefinal.pdf>.

Project Abstract

Regulatory Appraisals of Bt Maize: A Study of Science in Governance

Adrian Ely spent October and November 2003 as a Fellow at IAS-STs. During that time he conducted the Austrian fieldwork for his PhD on

'Regulatory Appraisals of Bt Maize: A Study of Science in Governance', a comparative study on the ways in which scientific expertise has been employed in the USA, UK, France and Austria. The PhD draws ideas from social constructivist and critical science analyses of environmental policy and from studies of decision-making under uncertainty. Using a theoretical framework developed from these traditions, he aims to better understand the ways in which scientific evidence has been selected and interpreted in the formulation and support of policies surrounding insect resistant transgenic maize. The scientific risk issues he focuses on in particular are impacts on non-target organisms, development of target insect resistance to Bt and horizontal and vertical transgene transfer. Apart from his period as a Fellow at IAS-STs, he has been a Visiting Researcher at the French National Institute for Agricultural Research (INRA) and a Visiting Fellow at the Program on Science, Technology and Society at the Kennedy School of Government at Harvard. He hopes to finish the project by the end of 2005. He would like to thank his former colleagues at IFZ, in particular Armin Spök and Bernhard Wieser, for their advice and support during his stay in Graz.

Risto Eräsaari

Email: rerasaar@mappi.helsinki.fi

Risto Eräsaari is Professor of Social Policy and Vice-Dean (Research) at the University of Helsinki. He is the author of 'How Unsafe is Safe Enough?' (2003, in Finnish) and he is preparing a publication on 'Contingency and Expertise'. Some of his earlier interests dealt with projects of the welfare state, historiography of socio-political concepts (*Begriffsgeschichte*) and aspects of social theory (*Gesellschaftstheorie*). His recent articles are on 'normative orientation in economics', 'accountability and the demons of transparency', 'concept of objectivity', 'method of conceptual history', and 'cultural circuit of capital'. One of the strong background ideas in his style of thinking is to discuss the counter-notion of 'necessity' and 'well-ordered cosmos'. He wants to make a strict distinction between problems of social integration and problems of increasing contingency. Thus neither fragmentation (social disintegration, corrosion of character etc.) nor social capital (good governance, empowerment etc.) are the appropriate catchwords for understanding

changing conditions for the development of cultural orientation and social relations today, but increased contingency. Risto Erässari was Fellow at the IAS-STs from December 2003 to January 2004.

Ulrich Glotzbach

Email: glotzb@tzi.de

Ulrich Glotzbach holds a university degree in Electrical Engineering (TU Berlin) and has worked as an engineer in research and development since he graduated from university in 1996. For example, he developed a solar sewing workstation in South Africa while working with the Cape Technikon (RSA) and re-designed, with the Institute Synopsis (FR), a more efficient solar cooker, which is now in small-series production. After that he worked as a project leader at Witten/Herdecke University (D) on eco-product development; the application of lasers to the welding of plastics; and the design of electronic micro-systems. In philosophy, Glotzbach focuses on theories of innovation, taking up threads in sociology of technology, history of technology and cultural anthropology. He started work in 2000 on a doctoral thesis at Witten/Herdecke University, which paves the way from a culturalistic model of technology rise and shaping to clues for socially responsible product development. From October 2002 to June 2003 he was a Fellow of IAS-STs, where he served as a Guest Lecturer in February 2004. In November 2004, he became managing director of the Mobile Research Center (MRC) in Bremen. The MRC is dedicated to holistic research in mobile information and communications technology.

Selected Publications

- (2001) with S. Hartmann, E.K. Wolff and E. Wurr, Patent Application EP01123507, *Verfahren zum Laserdurchstrahlschweißen von Kunststoffteilen*.
 (2004) with T. Beuckmann, O. Hasemann, C. Jehle, A. Middendorf, H. Park and E.K. Wolff, Patent Application 057 301.8, *Induktivität*.
 (2004) 'The importance of seeing that which is not there: Enrolling the concept of gestalt in engineering constructivism', in Arno Bammé, Günter Getzinger and Bernhard Wieser (Eds.), *Yearbook 2004 of the Institute for Advanced Studies on Science, Technologies & Society*, München: Profil: 77–98.

Hajo Greif

Email: hajo.greif@gmx.net

Born and raised in Frankfurt am Main, Germany, Hajo Greif received his PhD in philosophy in 2004 from the Technical University Darmstadt, after undergraduate studies in philosophy, cultural anthropology and sociology at J.W. Goethe Universität, Frankfurt, and a doctoral fellowship at the Darmstadt-based graduate school 'Technisierung und Gesellschaft' (Technology and Society). He was a Visiting Fellow at the Science Studies Unit, University of Edinburgh, Scotland, UK, in 2001. From October 2003 until June 2004, Hajo Greif was a Fellow at the IAS-STs, where he started work on his post-doc project on the history of Darwinism. Hajo Greif's research focuses on the philosophy and sociology (and, increasingly, also the history) of science, particularly of biology, as well as on the analytical philosophy of mind and language.

Selected Publications

- (2002) 'Versuche, die Welt zurückzugewinnen. Die Kontroverse über die 'Handlungsfähigkeit der Dinge' in den Science and Technology Studies', in Claus Zittel (Ed.), *Wissen und soziale Konstruktion in Geschichte, Kultur und Wissenschaft. Auseinandersetzungen mit dem Sozialkonstruktivismus*, Berlin: Akademie-Verlag (in German).
 (2002) with Kai-Uwe Bux, 'Ja, Der Da hat es gesagt. Über den dekonstruktiven Umgang mit Texten', *Deutsche Zeitschrift für Philosophie* 50/1: 17–34 (in German).
 (2004) 'Bedeutung ohne Absicht', in Johann C. Marek and Maria E. Reicher (Eds.), *Beiträge der Österreichischen Ludwig Wittgenstein Gesellschaft*, Vol. XII, Kirchberg am Wechsel: ALWS (in German, revised English version downloadable from IAS-STs website).

Project Abstract

The Darwinian Tension. Between Romanticism and Reductionism

There is a fault-line that seems to separate two distinct and antagonistic concepts of human nature: One faction (sociobiology and related theories) commits itself to a scientific, reductionist naturalism and aligns with

the Darwinian tradition in seeking to explain the human condition in terms of environmental fitness. On the other side, among the humanities and some evolutionary theorists, we find strong criticisms of the aforementioned kind of naturalism that endorse a view of human nature as being inherently and irreducibly cultural, notwithstanding the fact that humans have evolved.

The irony about this antagonism, as will be shown, is that it misses the conceptual intersection between economics and natural history that gave rise to Darwin's theory in the first place. At that intersection, the characteristics of the theories employed seem to reverse: Malthus' principle of population—a reductionist theory about human culture and society—was transferred to nature and blended with a deeply historical, anti-reductionist, and even romantic concept of nature. The two concepts formed a unique tension within Darwinian theory.

The main purpose of this research project in the philosophy and history of biology is to take a close look at the emergence and development of Darwinism, arguing that the tension between explanatory reduction and romantic immersion in nature was a crucial and epistemically productive element of Darwinian theory-building. It first allowed for a transfer of the idea of lawful causal mechanisms to animate nature, as well as it helped to modify and adapt this idea to its new purpose. The major factions in contemporary debates try to reduce this tension to unequivocal interpretations reflecting only one side of it respectively—which contributes to obscuring its origins and its initially productive character.

Simon Guy

Email: S.C.Guy@newcastle.ac.uk

Simon Guy is Professor of Urban Development in the School of Architecture, Planning and Landscape at the University of Newcastle, UK. His research interests revolve around the social production and consumption of technology and the material environment. His research approach has involved the development of an innovative sociological approach to urban development, in particular aimed at critically understanding the technical strategies and socio-economic processes framing environmental change. In October 2003, he was Visiting Scholar at the IAS-STs in Graz.

Simon Guy published widely on urban technology and environmental change issues including;

(2000) with Elizabeth Shove, *A Sociology of Energy, Buildings and the Environment: Constructing Knowledge, Designing Practice*, London: Routledge.

(2001) with Simon Marvin and Timothy Moss, *Urban Infrastructure in Transition: Networks, Buildings, Plans*, London: Earthscan.

(2005) edited with Steven Moore, *Sustainable Architectures: Cultures and Natures in Europe and North America*, New York: Spon Press.

Georgi Kapriev

Email: kapriev@mail.bg

Prof. Dr. Georgi Kapriev was born in Burgas, Bulgaria, on 3 March 1960. In 1987 he received a Master's degree in Philosophy from 'St. Kliment Ochriski' University of Sofia. In 1990 he was appointed assistant at the newly established Department of 'Philosophy of the Middle Ages and Renaissance' and obtained his PhD in Philosophy in 1991. Since 1991 he has co-edited the 'Bibliotheca Christiana' book series. In 1992 he became member of the 'Société Internationale pour l'Étude de la Philosophie médiévale' (SIEPM) and has been co-editor of the journal *Archiv für mittelalterliche Philosophie und Kultur* since 1994. In 1995 he finished his habilitation and was appointed Professor at 'St. Kliment Ochriski' University of Sofia. Between 1997–2002 he was Vice-President of the 'Byzantium Philosophy' Commission at SIEPM. Since 1999 he has headed the Department of 'History of Philosophy' at the Faculty of Philosophy, University of Sofia. In December 2000 he co-founded the Institute for the Philosophy and Culture of the Middle Ages and in November 2001 was appointed Full Professor on Mediaeval Philosophy at the Faculty of Philosophy, University of Sofia. In August 2002 he was appointed President of the 'Byzantium Philosophy' Commission at SIEPM. He became member of the Society for Philosophy of the Middle Ages and Renaissance – GPMR (Germany) in December 2004.

Selected Publications

(1998) *...ipsa vita et veritas. Der 'ontologische Gottesbeweis' und die Ideenwelt Anselms von Canterbury*, Leiden/Boston/Köln: Koninklijke Brill NV.

(2000) edited with T. Boiadjev and A. Speer, *Die Dionysius-Rezeption im Mittelalter*, Brepols: Turnhout.

(2005) *Philosophie in Byzanz*, Würzburg: Königshausen & Neumann.

Don Ihde

Email: dihde@notes.cc.sunysb.edu

Don Ihde is Distinguished Professor of Philosophy at Stony Brook University, New York, USA. He is the Director of the Technoscience Research Group within the Department of Philosophy, which includes Visiting Scholars, Post-Docs, and advanced PhD candidates from several disciplines.

His most recent books include, *Chasing Technoscience: Matrix for Materiality* (edited with Evan Selinger, Indiana, 2003); *Bodies in Technology* (Minnesota, 2002); and *Expanding Hermeneutics: Visualism in Science* (Northwestern, 1998). Evan Selinger has edited and completed the manuscript for an Ihde *Festschrift*, titled *Expanding (Post)Phenomenology: Companion to Ihde* (SUNY Press, forthcoming) which will contain essays from nineteen well-known figures in philosophy of science, philosophy of technology, sociology of science, musicology, communications and media studies, and STS studies. Ihde has responded to all the contributors.

Kornelia Konrad

Email: kornelia.konrad@web.de

Kornelia Konrad has been staff member of the Centre for Innovation Research in the Utility Sector (CIRUS), a research group at the Swiss Federal Institute of Environmental Science and Technology (EAWAG), since 2002. She has studied sociology, physics and mathematics at the University of Freiburg i.Br. and she prepared her PhD as a member of the Graduate School 'Technology and Society' at the Technical University of Darmstadt. Her main fields of research are the transformation of utility systems; the social dynamics of expectations in innovation processes; the use of drinking water; possibilities of user participation in technology design and the role of scenarios of use for the shaping of technology.

Recent Publications

(2004) *Prägende Erwartungen. Szenarien als Schrittmacher der Technikentwicklung*, Berlin: Edition Sigma.

(2005) 'A circle of uncertainties: Dilemmas of user involvement in highly dynamic innovation processes', in Harald Rohracher (Ed.), *User Involvement in Innovation Processes. Strategies and Limitations from a Socio-Technical Perspective*, München: Profil: 317–346

Imre Olivér Kozák

Email: kio@inno.bme.hu

Born in 1977, Imre Olivér Kozák studied Chemical Engineering at the Budapest University of Technology and Economics (BUTE) from 1995–2001 and gained an MSc with honours in Bioengineering (biological process engineering). He is currently a PhD candidate at the Department of Innovation Management and History of Technology at BUTE, studying the design process of environmental limit values. His research specifically focuses on the ways in which risk factors can be employed by various actors in the design process of environmental limit values, in particular when regulation has to be founded on a shaky basis of scientific knowledge. As part of his doctoral project he was a Visiting Researcher at Florida Tech in 2002, and conducted research as a Fellow at IAS-STIS in Graz from November 2003 to September 2004.

Selected Publications

(2003) with Melinda Kozák, Jenő Fekete and Virender K. Sharma, 'Concentration of Polycyclic Aromatic Hydrocarbons (PAHs) in Moss (*Hypnum cupressiforme*) from Hungary', *Journal of Environmental Science and Health Part A—Toxic/Hazardous Substances & Environmental Engineering* A38: 2613–2619.

(2004) 'The Concepts of Incertitude, Risk, Uncertainty and Ignorance in the Environmental Regulation of Organic Air Pollutants', in *Yearbook of the BUTE-FIT Environmental Sciences Partnership Programme*, Budapest: BUTE-FIT.

(2004) with Edit Ötvös, Jenő Fekete, Virender K. Sharma and Zoltán Tuba, 'Atmospheric Deposition of Polycyclic Aromatic Hydrocarbons

(PAHs) in Mosses (*Hypnum cupressiforme*) in Hungary', *Science of the Total Environment* 330: 89–99.

Project Abstract

Improvement of the Design Process of Environmental Limit Values through the Integration of Risk Factors

The aim of the project includes revealing the importance of risk factors in the use of limit values in environmental legislation through a comparative historical approach. To achieve this goal, the project focuses on the analysis of the history of limit value formation, with special attention to the possible role of risk factors.

Franc Mali

Email: franc.mali@fdv.uni-lj.si

Franc Mali is Associate Professor of Epistemology and Sociology of Science at the University of Ljubljana, Faculty of Social Sciences. He was Visiting Fellow at the University of Bielefeld, Germany (1998); University of Klagenfurt, Austria (1994); University of Linz, Austria (1992); University of Vienna, Austria (1989). His main research topics are social system theory in science, the triple helix concepts in R&D policy, science and technology evaluation and bibliometrics. He is heading the Centre for Social Studies of Science at the Faculty of Social Sciences (University of Ljubljana). He is author and co-author of numerous articles and book chapters on social studies of science and technology. More detailed bibliography at URL: <http://izum.izum.si/bibliografije-online>. He published two books (in Slovenian): *Modern Development of Science* (Moderni razvoj znanosti, Ljubljana 2002) and *Science as System Part of Society* (Znanost kot sistemski del družbe, Ljubljana 1994). Since 1999 he has been member of the Executive Board of the Sociology of Science and Technology Research Network (SSTNET) at the European Sociological Association (ESA). He was a Fellow at the Institute for Advanced Studies on Science, Technology and Society (IAS-STS) in Graz in February 2004.

Selected Publications

(2002) 'Challenges of the European research area for a small post-communist country in transition: The case of Slovenia', *Vest. Journal for Science and Technology Studies* 15 (2/3): 81–96.

(2003) 'Socio-economic transition and new challenges for the science and technology policy in Slovenia', in Peter S. Biegelbauer and Susana Borrás (Eds.), *Innovation Policies in Europe and the US. The New Agenda*, Hampshire: Ashgate: 211–233.

(2003) 'Sociology in Slovenia. The challenge of transition', in Mike Forrest Keen and Janusz L. Mucha (Eds.), *Sociology in Central and Eastern Europe. Transformation at the Dawn of a New Millennium*, Westport/Connecticut/London: Praeger: 165–175.

(2004) 'The new challenges of university system in the recent processes of commodification of scientific knowledge', *Teorie Vědy (Theory of Science)* 26 (1): 67–78.

(2004) 'Socjologia w Słowenii: wyzwanie okresu przejścia', in Janusz Muchy and Mike Forrest Keen (Eds.), *Pierwsze lata suwerenności: socjologia europy środkowo-wschodniej o krajach tego regionu*, Warszawa: Wydawnictwo Instytutu Filozofii i Socjologii PAN: 171–182.

Project Abstract

Intellectual Property Rights in the Context of the New European Innovation Policy

The study focused on the issue of the social and ethical aspects of intellectual property rights in Europe. In the past one and a half decades, European innovation policy has been undergoing major transformations. This new innovation policy resulted in an increasing effort to take radical steps towards a more efficient regulation of intellectual property rights. In order to achieve efficient policy regulation in this area, it is most important to find a suitable balance between public and private interests. The basic hypothesis of my research project was that the endeavours to achieve a suitable balance in the intellectual property regime have to take ethical dimensions and the unclear boundaries between inventions and discoveries in the framework of new generic technologies. In order to prove the key hypothesis,

I performed a critical comparative analysis of the basic difference in policy approaches to patenting systems between EU Member States (Austria, etc.) and the United States. It has been pointed out that the stakeholders involved in policy regulation of intellectual property rights in EU Member States are increasingly aware of the fact that without effective means of enforcing this dimension of innovation processes, the global economic competitiveness of Europe will be dramatically diminished. Nevertheless, the formulation of an intellectual property regime has never been subjected to the sole question of whether the economic agents will make enough profit. The same importance has been given to the question of what kinds of social values should guide the patent norms in the framework of new generic techno-science. Europe has taken an important step further in the understanding of social and ethical aspects of the complex issue of intellectual property rights.

David Mercer

Email: dmercer@uow.edu.au

David Mercer is an Associate Professor in STS, School of Social Science and Communication, at the University of Wollongong, NSW Australia, 2522. His primary area of research involves public policy in relation to science/expertise and regulation; he is also currently writing on the history of communication technology.

Selected Publications

(2002) with Gary Edmond, 'Conjectures and exhumations: Citations of history, philosophy and sociology of science in US federal courts', *Law & Literature* 14: 309–366.

(2002) 'The intersection of sociology of scientific knowledge (SSK) and law: Some themes and policy reflections', *Law.Text.Culture* 6: 137–158.

(2002) 'Scientific method discourses in the construction of 'EMF Science': Interests, resources and rhetoric in submissions to a public inquiry', *Social Studies of Science* 32: 205–233.

(2002) 'SSK and the law: A brief critical overview', in Arno Bammé, Günter Getzinger and Bernhard Wieser (Eds.), *Yearbook 2002 of the Institute of Advanced Studies on Science and Technology*, Munich: Profil: 254–272.

(2002) with Gary Edmond, 'Rebels without a cause: Judges, scientific evidence and the uses of causation', in I. Freckelton et al. (Eds.), *Science, Medicine and Causation*, Ashgate Press UK: 61–83.

(2004) with Gary Edmond, 'Daubert and the exclusionary ethos: The convergence of corporate and judicial attitudes towards the admissibility of expert evidence in tort litigation', *Law and Policy* 26: 231–257.

(2004) with Gary Edmond, 'Experts and expertise in legal and regulatory settings', in Gary Edmond (Ed), *Expertise in Regulation and Law*, Ashgate Press UK: 1–31.

(2004) with Gary Edmond, 'The invisible branch: The authority of science studies in expert evidence jurisprudence', in Gary Edmond (Ed.), *Expertise in Regulation and Law*, Ashgate Press UK: 196–240.

(2004) 'Hyper-experts and the vertical integration of expertise in EMF/RF litigation', in Gary Edmond (Ed), *Expertise in Regulation and Law*, Ashgate Press UK: 85–97.

(forthcoming) 'Capturing the positive educational possibilities of creation science debates?', in L.S. Jones and M. Reiss (Eds.), *Teaching about Scientific Origins: Taking Account of Creationism*, New York: Peter Lang.

(forthcoming) 'A Parting Shot at Misunderstanding: Fuller vs. Kuhn', Review in Review Symposium of Steve Fuller, *Kuhn vs Popper: The Struggle for the Soul of Science, Metascience*.

Tabitha Mulyampiti

Email: mulyampiti@ss.mak.ac.ug

Tabitha Mulyampiti is a graduate of Political Science (PhD, University of Vienna 1999) and Gender Studies (MA, Makerere University 1995). She has been a gender consultant and lecturer in the Department of Women and Gender Studies, Makerere University since 2001. She has taught several courses including Gender and Technology in Africa; Gender and International Relations; Feminism and the Women's Movement; and Gender and Development Politics in Africa. Tabitha Mulyampiti is at the centre of the development of e-learning (ICTE) programmes at the university. She is a member of the Co-Curriculum Development Task Force, which is responsible for the ICTE curriculum organised in cooperation with the Universities of Dar-es Salaam (Tanzania), Tufts (USA) and Makerere (Uganda). In

addition, she has conducted research in the broad field of ICT, Gender and Development in Africa. Tabitha Mulyampiti has produced a report on *E-Learning Establishment and Implementation at Makerere University*, funded by Sida/SAREC and the Faculty of Social Sciences (2003). In January and February 2004 Tabitha Mulyampiti was a Fellow at the IAS-STS in Graz.

Project Abstract

Making Education Technologies Work: A Gender Analysis of the E-Learning Programmes at Makerere University, Kampala

Makerere University is Uganda's premier institution of higher learning. It is one of the oldest and largest universities in East and Central Africa with a population of over 20,000 students.

It is believed that in Makerere educational technology, a new organisational infrastructure that enables effectiveness of teaching and therefore improves the quality of student learning, has gained root. There are several major hardware and software initiatives: from initial computer and printer purchase, to various laptop, CD-ROM, and Independent Learning schemes, and other electronic networks for teaching and learning. Educational technology also enables the lecturers to be as professional in their teaching activities as they are in their research work. With this kind of infrastructure, the learning process is constituted as a dialogue between student and teacher having discursive, adaptive, interactive and reflective characteristics. It enables teaching and learning through simulations and modelling, tutorial programmes and tutoring systems as well as teleconferencing and collaboration.

No study has yet been done in Makerere to establish whether female and male students look at education technologies and their uses differently, nor whether there are other forms of marginalisation other than on a gender basis to access to and interest in the technology programmes. It is essential that gender concerns be incorporated from the beginning and not as a corrective afterwards. This study therefore focuses on a gender analysis of access to and use of the instructional technologies currently available in Makerere University, Kampala.

The purpose of this study is to identify the gender gaps that ICT can generate and enhance, and bring to light the importance of female participation in ICT related educational and instructional media (ICTE).

The overall objective is to carry out a gender analysis of the new educational/instructional technologies – ICTE (commonly known as e-learning at Makerere University).

This study is founded on the fact that much as there is need for everyone to join the global information society in order to develop sustainably, women and other marginalised groups have not had equal access to this information and the benefits it has come with. In the case of the educational technology programme at Makerere University, educational technology/instructional media, most of which are relatively new, expensive, complex to use, and not wide spread, should be developed with caution. Characteristics of learners are a very important factor in choosing the instructional medium to enable effective teaching and learning. These characteristics include preferences, background, experiences, interest and level of motivation, to mention a few.

The study involves information collected from a cross-section of respondents, using both qualitative and quantitative methods.

Analysis is also guided by the variables identified in the conceptual framework, objectives and literature. However, no pre-determined ideas influenced the output of ideas. Interpretation is left open and has allowed unexpected discoveries.

ICT services and systems have become inherent in the university's educational, research, administrative and managerial processes.

Lessons to be learned

- The need for a gender analysis of the policy. Gender evaluation should be part of the requirements for ICTE implementation at the University. Seemingly gender-neutral policies frequently have important gender aspects that gender analysis elucidates. In this case, the process of gender review of the different ICTE programmes suggested in the policy would bring out these aspects.
- Promotion and development of IT-based instructional technologies at the University should implicitly deal with gender. Thus, gender analysis should be incorporated from the beginning.
- The need for specific strategies to ensure female staff and students' participation, since the pool of women eligible for technical training is small.

- Need to involve gender aware individuals in the design, management and planning of training and the development of ICTE programmes to ensure that gender needs are addressed.
- The need for sex-desegregated data on ICTE projects, especially those involving training.
- The need to correctly assess skill levels before training, as more women than men may have low levels of skill in information and instructional technology and adjust training accordingly.
- The need to take into account gender-specific cultural constraints, such as women's family responsibilities and their difficulty in attending early morning and evening training sessions.
- Equal participation in numbers of men and women in ICTE projects is not a guarantee that the project will bring equal benefits to women and men. ICTE projects should bring benefits to women as well and empower them.

Selected Publications

(2001) 'On the road to the information and knowledge society? Gender and the Internet in Uganda', unpublished manuscript.

(2004) *The New Information and Communications Technologies. An Opportunity for Good Governance in Uganda?*, Kampala, Uganda: Centre for Basic Research.

(2004) *Women and Gender Studies in the Contemporary Africa. An Approach to Post-Colonial Studies in Africa*, First Cultural Workshop on Post-Colonial Studies, Kampala, Uganda.

Taru Peltola

Email: taru.peltola@uta.fi

Taru Peltola studied geography and received her Master's degree in Regional Studies from the University of Tampere, Finland, in 1997. She continued her studies in Environmental Policy and defended her licentiate thesis in 2003. The subject of her thesis was alternative technologies and flexibility in municipal energy production. She has worked in various research projects at the Department of Regional Studies and Environmental Policy, Univer-

sity of Tampere, since her graduation. She has also been a lecturer teaching research methodology. She was a Fellow at the Institute for Advanced Studies on Science, Technology and Society (IAS-STs) in Graz from October 2003 to June 2004 and is currently working at the Department of Regional Studies, University of Tampere, teaching an introductory course in Science and Technology Studies. Her special fields of interest are bioenergy, technological transformation, environmental politics and livelihood of peripheral areas.

Selected Publications

(2002) with Maria Åkerman, 'Temporal scales and environmental knowledge production', *Landscape & Urban Planning* 61 (2–4), Special Issue: Scaling and Environmental Understanding: 147–156.

(forthcoming) 'Calculating the futures: Stability and change in a local energy production system', in Chuck Dyke and Yrjö Haila (Eds.), *How Nature Speaks: The Dynamics of the Human Ecological Condition*, Duke University Press.

(manuscript) with Maria Åkerman, 'Constituting the space for decision making—Conflicting calculations in a dispute over fuel choice in a local heating plant', submitted to *Geoforum*.

(manuscript) with Maria Åkerman and Minna Kaljonen, 'Integrating sustainability into social practices—Two case studies on the dynamics between environmental management and livelihood in rural Finland', submitted to: Special Issue of *Silva Fennica*: Sustainable use of renewable natural resources—from principles to practices.

Project Abstract

Environmentally Sound Technological Alternatives and Public Energy Management

In my current research I have begun to ask what political scientists can learn from technology. An energy production system, like any other technical structure, is usually able to maintain its material shape during its life-cycle. At the same time, it tends to stabilise the social relations that constitute it. These social relations, in turn, make the technical structure harder to change.

Technological alternatives are frequently born, however, and sometimes they may even replace old structures. Through what kind of activities does this take place? A political scientist might start looking for the answer from rhetorics. But are words enough? Usually not. Arguments have to be put forward through material artefacts, routines and practices. And here I have entered a danger zone: what then is politics?

My research project focuses on the construction of bioenergy technologies in Finland. I analyse the development of different forest fuel technologies to explore how new political alternatives are built into technology: how alternative knowledge, meanings and material production practices evolve within standardised technological systems and create new possibilities to act.

Anna Pobol

Email: anna_pobol@tut.by

Anna Pobol was born in 1979 in Minsk, enrolled the Economic Department of the Belarusian State University in 1996, and graduated with distinction as an economist and lecturer in Economics in 2001. For the preparation of her diploma thesis on 'Innovation Activity as a Condition of Economic Development' she received support from the Stefana Batorego Foundation (stay at the Warsaw Higher School of Economy from October 2000 to January 2001), followed by studies at the Friedrich-Schiller University in Jena, Germany, from April 2001 to August 2001, under a scholarship from the state of Thuringia. In December 2001 Anna Pobol started her doctoral study with a dissertation on 'Formation and State Regulation of the National Innovation System' at the Institute for Economic Research, Ministry of Economy of Belarus, where she is currently studying. A research visit to the Institute of Technological and Innovation Management at Technische Universität Berlin from June to November 2003 was supported by DAAD. From December 2003 to August 2004, Anna Pobol was Fellow at the IAS-STIS in Graz .

Recent Publications

(forthcoming) with David Dyker, 'Review of the book 'From System Transformation to European Integration. Science and technology in

Central and Eastern Europe at the beginning of the 21st century' edited by Welter Meske, Münster: LIT Verlag', in *Belarusian Economic Journal*. (forthcoming) 'Points of technological excellence as drivers of integration into ERA: Case of reallocating domestic R&D resources in Belarus', *PRIME Summer School for PhD students, July 2004*, 'Towards an enlarged European Research Area', Madrid.

(forthcoming) 'Financial and organisational provision of innovation activity at research-based spin-off firms in a transitive economy of Belarus', in Walter L. Filho (Ed.), *R&D Priorities in Innovation Policy and Financing in Former Socialist Countries*, IOS Press.

Project Abstract

Spin-off Firms in a National Innovation System: Social Consensus

The empirical basis of the project is provided by the case studies with opportunistic data collection of innovative technology-based enterprises founded by public research laboratories (research-based spin-off firms – RSOs). The study investigates the processes of their emergence, performance and relationships to the parent institutions and industry, with the aim to find out the niche of RSOs in a National Innovation System (NIS). The core thesis of the project considers the emergence of a stratum of innovative, application-oriented researchers to be a valuable chain strengthening the weak 'university-science-industry' linkages. Their role is not merely restricted to technology transfer, however, but is a remarkable stage in the institutional transformations required for the development of a coherent and sustainable (in both economic and social senses) NIS. The innovation competencies and culture fostered by them in an innovation system serve as a catalyst for the development of a knowledge-based economy. With the research being based on system methodology, the objects under consideration are approached from the historical and socio-economic perspective. The reasoning of the relationships implies the institutional perspective in order to explain the distribution of functions in the system of innovation, and the interests behind these relationships in an economy (particularly in a transitional one). The project is given special topicality by the fact that RSOs are studied under conditions of the formation of the National Innovation System from the state-regulated S&T sphere in the transitional

economy of Belarus. It is of burning importance for the transitional economies to learn to apply the benchmarking experiences in the organisation of an innovation fostering system. The case which is focused on in the project, however, is also a fertile soil for the mature (European) economies, for example in the implementation of the novel institutional structures for the knowledge-based organisation of society.

Jonathan Reisman

Email: Sped76@aol.com

Jonathan Reisman graduated from New York University with a degree in Theoretical Mathematics and a minor in Philosophy. Throughout 2002, he worked on a MacArthur Foundation grant entitled 'Public-Private Partnerships and Making Environmental Policy in Russia'. Within this study, he researched international environmental organizations and the nascent environmental movement in post-Soviet Russia. He also delved into the sociological implications of contaminated localities, both in Russia and the United States. In 2003, Reisman worked on a grant from the US State Department, researching indigenous cultures of the Kamchatka Peninsula in the Russian Far East. He studied Russian Siberia's ethnic frontier and the position of eastern natives in the post-Soviet milieu. He is now pursuing a medical degree from UMDNJ-Robert Wood Johnson Medical School.

Selected Publications

(2002) with M. Tysiachniouk, 'Civil society and global security: Russia's decision to import spent nuclear fuel', *The Journal of Eurasian Research* 1 (2): 35–48.

(2002) with M. Tysiachniouk, 'Transnational environmental organizations and the Russian forest sector', in Jarmo Kortelainen and Juha Kotilainen (Eds.), *Environmental Transformations in the Russian Forest Industry*, University of Joensuu: Publications of Karelian Institute: 56–71.

(2004) with M. Tysiachniouk, 'Co-managing the Taiga: Russian forests and the challenge of international environmentalism', in A. Lehtinen, J. Donner-Amnell and B. Saether (Eds.), *Politics of Forests*, Aldershot: Ashgate: 157–175.

Minna Salminen-Karlsson

Email: minsa@tema.liu.se

Minna Salminen-Karlsson has been Assistant Professor at the Department of Technology and Social Change at Linköping University since 2000. Her research areas are gender in engineering education and gender in high-tech organisations. Her PhD thesis 'Bringing Women into Computer Engineering', which she completed in 1999, was one result of her research into gender in engineering education. During the past eight years she has been engaged in different reform projects in this area and lectured on the subject widely both in Sweden and abroad. Her work on gender in high-tech organisations involved ethnographic work among female computer scientists to map different aspects in their career development. She was responsible for the gender and technology specialisation of the European (ESST) Master's programme in Linköping. She is currently studying the cooperation between university and industry by means of PhD candidates financed by industry and working in industrial enterprises, focusing on gender aspects in the situation of these candidates. She was a Fellow at the Institute for Advanced Studies on Science, Technology and Society (IAS-STSS) in May 2004.

Selected Publications

(1999) *Bringing Women into Computer Engineering. Curriculum Reform Processes at Two Universities of Technology*, Linköping Studies in Education and Psychology, 60, Linköping: Linköpings Universitet, Institutionen för pedagogik och psykologi.

(2002) 'Gender-inclusive computer engineering education: Two attempts at curriculum change', *The International Journal of Engineering Education* 18 (4): 430–437.

(2003) 'Situating gender in situated learning—experiences from a computer company', in Ewa Gunnarsson et al. (Eds.), *Where Have All the Structures Gone?*, Stockholm: Arbetslivsinstitutet.

Project Abstract

Lately I have been interested in looking at the concept of technology as used in different kinds of technology education. In particular, I have become

acquainted with technology as presented in Swedish ‘county technology schools’—an initiative to deal with the lack of interest of young people in taking up technology studies—and engineering education. My interest especially concerns the way these concepts of technology are related to gender.

During my stay at IAS-STG I plan to analyse my material from the county technology school and write a report, as well as lay a foundation for later, more theoretical articles about the way technology is presented to young children in this context, especially how this institution is working with the masculinity of technology. In parallel, I will refine an earlier paper on the concept of technology and gender in Swedish engineering education, and hopefully widen its scope into a more international one. Thus far I see the county technology school as presenting a more gender-inclusive alternative to the way technology is conceptualised in engineering education, and I hope that these two lines of thought will finally merge into a constructive criticism and new perspectives on the lack of women in engineering.

Gerd Schienstock

E-mail: gerd.schienstock@uta.fi

Gerd Schienstock is Professor of Social Sciences at the University of Tampere and Scientific Director of its Work Research Centre in Finland. He has coordinated the National Research Programme on the Finnish Innovation System funded by the Finnish National Fund for Research and Development *Sitra*. His research focuses on regional innovation systems, work organisation and management systems, and the information society. Gerd Schienstock was a Visiting Scholar at the IAS-STG in Graz from November 2003 to January 2004.

Recent Publications

(2004) (Ed.), *Embracing the Knowledge Economy: The Dynamic Transformation of the Finnish Innovation System*, Cheltenham, UK/Northampton, MA: Edward Elgar.

(2004) ‘From path dependency to path creation: A new challenge to the systems of innovation approach’, in Gerd Schienstock (Ed.), *Embracing the Knowledge Economy: The Dynamic Transformation of the Finnish Innovation System*, Cheltenham, UK/Northampton, MA: Edward Elgar: 3–27.

(2004) with Mika Kautonen and Pasi Koski, ‘Escaping path dependency: The case of Tampere, Finland’, in Philip Cooke, Martin Heidenreich and Hans-Joachim Braczyk (Eds), *Regional Innovation Systems*, 2nd Edition, London: Routledge.

Project Abstract

Organizational Innovations

Over several decades, innovation researchers have made major efforts aimed at understanding and measuring technical change. Disappointing experiences with ICT applications have made it obvious that to understand the impact of modern technologies on economic growth and social welfare one has to highlight the central role of organizational change in a cluster of complementary and mutually reinforcing technical and social innovations. In the paper, organizational innovations are understood as a means to improve the capacity of companies to deal with organizational problems, such as guaranteeing high economic performance, aligning more effectively with their environment, balancing the vested interests of stakeholders and fulfilling societal demands. The paper also deals with different approaches to conceptualizing organizational innovations, develops a typology of organizational innovations based on depth and breadth of change, discusses a user concept of organizational innovation and analyses the linkages between organizational, technical and cultural innovations. Finally the paper refers to the concept of national organizational trajectories and discusses the aspects of path dependency and path creation.

Franz Seifert

Email: fseifert@gmx.at

Franz Seifert is a biologist and political scientist. He currently lectures at the University of Vienna and directs a research project investigating the linkage of local and global political dynamics emerging in the conflict over agricultural biotechnology. His major fields of interest are biopolitics, democracy, science politics interactions, new social movements, globalisation/globalisation and contemporary social theory.

Selected Publications

- (2002) *Gentechnik – Öffentlichkeit – Demokratie. Der österreichische Gentechnik-Konflikt im internationalen Kontext*, München: Profil.
- (2003) 'Demokratiethoretische Überlegungen zum österreichischen Gentechnik-Konflikt', *SWS-Rundschau* 43 (1): 106–128.
- (2003) 'Transatlantischer Gentechnik-Streit & Globalisierung', *International* 6: 17–21.
- (2003) 'Helmut Willke: Atopia. Studien zur atopischen Gesellschaft' (Review), *Österreichische Zeitschrift für Politikwissenschaft* (2003/3): 358–360.
- (2003) 'Beinahe-Gleichzeitigkeit. Die europäische Anti-Gentechnik-Welle und das Öffentlichkeitsdefizit der EU', *Berliner Journal für Soziologie* (2003/4): 545–564.
- (2004) 'Internationally mobile consensus: The Austrian experience with the Danish model', *TRANS* (15/2003) http://www.inst.at/trans/15Nr/03_2/seifert15.htm.
- (2004) 'Wie man die 'menschliche Natur' besser nicht in die Sozialwissenschaften einführen sollte', *Österreichische Zeitschrift für Soziologie* (2004/1): 93–101.
- Besides, comments, essays, reports at <http://science.orf.at/science/seifert/>.

Ivan Tchalakov

Email: tchalakov@sociology.bas.bg

Associate Professor, Dr. Ivan Tchalakov was born in Plovdiv, Bulgaria, on 18 September 1960. He received his PhD in 1988 from the Institute of Sociology, Bulgarian Academy of Sciences (BAS), with a thesis on classical sociology of knowledge. He is working in the fields of sociology of science and economics of technical change. Since 1999 he has headed the Technology Study Group at the Department of Sociology of Science and Education, Institute of Sociology. In 2004 he was appointed Associate Professor of Sociology of Science and Technology at Plovdiv University. He joined the European Association for the Study of Science and Technology (EASST) in 1996 and was president of the Bulgarian Sociological Association between 1999 and 2003.

Between 1993–1997 Ivan Tchalakov carried out an ethnographic study of the holographic laboratory (CLOSPI) at BAS, where he developed the notion of *heterogeneous micro-communities*, comprising a limited number of human and non-human actors in the laboratory. Since the mid-1990s he has also extensively studied the transformation of the research and innovation systems in post-socialist countries. He was the scientific coordinator of the TACTCIS Project, a comparative study of the development of information and communication technology sectors in Bulgaria, Macedonia and Romania, carried out under the EC INCO-Copernicus IV Program. His recent interests focus on innovation theory and sociological theory of human action.

Recent Publications

- (2003) 'Joseph Schumpeter rethought: the classic ideas on the innovations in no-exchange economy at the light of some recent studies of the communist economy', *Teorie Vědy (Theory of Science)* Vol. XII/XXV, No. 3, Prague.
- (2004) 'The object and the other in holographic research—Approaching passivity and responsibility of human actors', *Science, Technology & Human Values* 29 (1): 64–87.
- (2004) 'Language and perception in the coupling between human and non-human actors', in Arno Bammé, Günter Getzinger and Bernhard Wieser (Eds.), *Yearbook 2004 of the Institute for Advanced Studies on Science, Technologies & Society*, München: Profil: 192–215.

Bernhard Truffer

Email: bernhard.truffer@eawag.ch

Bernhard Truffer studied Geography, Mathematics and Economics at the University of Fribourg, Switzerland, where he obtained his PhD in Economic Geography in 1993. From 1993 to 1996 he worked as a researcher at EAWAG (Swiss Federal Institute for Aquatic Science and Technology). He carried out various national and international research projects on sustainable innovation and transformation in transportation. Bernhard Truffer initiated and headed a major transdisciplinary research project on Green Power certification in Switzerland from 1997–2001. In 2001 and 2002 he worked as a research fellow at DaimlerChrysler Research, Berlin and at

the Wissenschaftszentrum für Sozialforschung, Berlin. He became head of CIRUS (Centre for Innovation Research in the Utility Sector) at EAWAG in 2001 and is currently working as a lecturer at ETH (Environmental Sciences) and the University of Berne (Economic Geography).

Selected Publications

(1998) with P. Cebon, G. Dürrenberger, C. Jaeger, R. Rudel and S. Rothen, 'Innovative social responses in the face of global climate change', in P. Cebon, U. Dahinden, H. Davies, D. Imboden and C. Jaeger (Eds.), *In Views from the Alps. Regional Perspectives on Climate Change*, Boston: MIT Press, 351–434.

(2002) with R. Hoogma, R. Kemp and J. Schot, *Experimenting for Sustainable Transport. The Approach of Strategic Niche Management*, London: Spon Press.

(2003) 'User led innovation processes. The development of professional carsharing by environmentally concerned citizen', *Innovation – The European Journal of Social Science Research*, special issue on 'The Role of Users in Technological Innovations' edited by J. Jelsma and H. Rohracher, Vol. 16: 139–154.

(2004) with D.M. Imboden and J. Markard, 'The impacts of market liberalization on innovation processes in the electricity sector', *Energy & Environment* 15 (2): 201–214.

(2005) with J.-P. Voss and K. Konrad, 'Sustainability Foresight für Versorgungssysteme. Ein ko-evolutorischer Ansatz zur Analyse, Bewertung und Modulierung nachhaltiger Entwicklung', in *Jahrbuch Ökologische Ökonomie*, Nr. 4, Marburg: Metropolis, 175–200.

(2005, in press) with J. Markard, 'The promotional impacts of green power products on renewable energy sources: Direct and indirect effects', *Energy Policy*.

Maria Tysiachniouk

Email: tysiachn@hotmail.com

Maria Tysiachniouk has an MS in Environmental Studies from Bard College, NY, a PhD in Biology from the Russian Academy of Sciences,

and a Certificate in Nonprofit Studies from Johns Hopkins University. She is currently chairing the Department of Environmental Sociology at the Center for Independent Social Research in St. Petersburg and her particular interest is in international environmental NGOs and their networks. She has been conducting research on environmental movements and the third sector for more than nine years and authored more than 80 publications. She received additional training during her post-doctoral fellowship at the Center for Civil Society Studies at Johns Hopkins University in 2000–2001. During her MacArthur Foundation project in 2002–2003 on 'public-private partnerships and making environmental policy in Russia' she studied multi-stakeholder forest governance in Russia. She also conducted pilot investigations in Brazil and China. She has taught at Herzen Pedagogical University in St. Petersburg, St. Petersburg State University, Johns Hopkins University, Dickinson College, PA, Ramapo College of New Jersey, Towson University and has held short courses in several universities in Europe.

In May 2004, Maria Tysiachniouk was Guest Lecturer at the Institute for Advanced Studies on Science, Technology and Society (IAS-STs) in Graz.

Recent Publications

(2002) with J. Reisman, 'Civil society and global security: Russia's decision to import spent nuclear fuel', *The Journal of Eurasian Research* 1 (2): 35–48.

(2002) with J. Reisman, 'Democratization of education through university-NGO partnerships', *The Journal of Eurasian Research* 3: 12–14.

(2004) with N. Mironova and J. Reisman, 'A historical perspective on the movement for nuclear safety in Cheliabinsk, Russia', *International Journal of Contemporary Sociology* 41 (1): 41–58.

(2004) with J. Reisman, 'Co-managing the Taiga: Russian forests and the challenge of international environmentalism', in A. Lehtinen, J. Donner-Amnell and B. Saether (Eds.), *Politics of Forests*, Aldershot: Ashgate: 157–175.

Jan-Peter Voß

Email: j.voss@oeko.de

Jan-Peter Voß, born 1973, studied Political Science and Economics at Freie Universität Berlin and London School of Economics and Political Science. He worked as a student intern with the United Nations Climate Change Secretariat in Geneva and with the social science research programme of the government of Peru in Lima. His focus from an early stage has been on the governance of energy and environment issues and theories of social and ecological dynamics. In 1999 he started working at the Öko-Institut – Institute for Applied Ecology, first in Freiburg and since 2003 in Berlin. He has worked on and led projects in the area of cost-benefit analysis, energy investment modelling, network regulation, promotion schemes for renewable energy, institutional innovation, socio-technical change in infrastructures, transdisciplinary research methods and evaluation. He currently works half-time for a PhD thesis on the dynamics of governance innovations, which is supervised at the University of Twente (NL). In June 2004, Jan-Peter Voß was a Visiting Scholar at IAS-STS in Graz.

Selected Publications

(2000) 'Institutionelle Arrangements zwischen Zukunfts- und Gegenwartsfähigkeit: Verfahren der Netzregelung im liberalisierten deutschen Stromsektor', in V. v. Prittwitz (Ed.), *Institutionelle Arrangements in der Umweltpolitik. Zukunftsfähigkeit durch innovative Verfahrenskombination?*, Opladen: Leske+Budrich: 227–254.

(2004) with D. Hayn and B. Nölting, 'Nachhaltigkeitsforschung—jenseits von Disziplinierung und "anything goes"', *Gaia* 13 (4): 272–279.

(forthcoming), with D. Bauknecht and R. Kemp (Eds.), *Reflexive Governance for Sustainable Development*, Cheltenham: Edward Elgar.

Christine Wächter

Email: waechter@ifz.tugraz.at

Christine Wächter is Deputy Director of IFZ and Associate Professor for Continuing Education at the Department of Research on Technology and Science of the Faculty for Interdisciplinary Studies at the University

of Klagenfurt. She studied English and American Language and Literature and Art History at the University of Graz, and Environmental Engineering at Graz University of Technology.

She is a founding member of IFZ, was its director from 1991 to 1999, and is now heading the research area 'Women – Technology – Environment'. She is member of the Scientific Advisory Board of the Coordination Center for Women's Studies and Gender Research Graz, Member of the Board of the Institute of Educational Policy and Law, Graz, and Peer Evaluator for the Board for Universities of Applied Sciences in Austria. In 1991, she co-founded a Girls-into-Engineering Program 'FIT – Frauen in die Technik' ('FIT – Female Careers in Technology').

She has many years of experience as lecturer at the Universities of Klagenfurt and Graz, the Technical Universities of Graz and Berlin, and FH Joanneum University of Applied Sciences on topics of technology assessment, technology and politics, gender and technology. In 2000, she was Guest Professor at the Technical University Berlin, lecturing on 'Environment and Gender' and 'Feminist Perspectives on Sustainable Technology Design'.

Main fields of activities: Gender and technology, feminist perspectives on sustainable technology design, quantitative and qualitative measures to improve the status of women in science and engineering.

Selected Publications

(2002), 'As If We Were From Outer Space. Outcomes of an Austrian Women-into-Engineering Project', in *Proceedings of the 12th International Conference of Women Engineers and Scientists – ICWES 12: 'Women in a Knowledge-based Society'*, 27–31 July 2002, Ottawa, Canada: CD-Rom, ISBN 0-9730490-0-6.

(2003) 'Attracting women into engineering through regional technology programs', in Arno Bammé, Günter Getzinger and Bernhard Wieser (Eds.), *Yearbook 2003 of the Institute for Advanced Studies on Science, Technology and Society*, München: Profil: 258–270.

(2003) *Technik-Bildung und Geschlecht*, München: Profil.

(2004) 'Interdisziplinäre Technikbildung in Europa', *Forum der Wissenschaft*, Heft 4, Dezember: 31–34.

Raymund Werle

Email: we@mpifg.de

Raymund Werle is principal research associate with the Max Planck Institute for the Study of Societies at Cologne. His research is focused on the interaction of institutional and technological innovations, in particular in the information and telecommunications technology industry and in biotechnology. Earlier research includes the development of telecommunications and data networks, the Internet in particular, and their structural and societal consequences. Raymund Werle has published in the area of science and technology studies, development and governance of large technical systems, organizations and processes of technical standardization but also in the sociology of law and the legal profession and research methodology. In May 2004 Raymund Werle was a Visiting Scholar at the Institute for Advanced Studies (IAS-STs), where he worked on a theoretical paper on 'Institutional Approaches to Technical Innovation'.

Selected Publications

(1998) with Susanne Schmidt, *Coordinating Technology. Studies in the International Standardization of Telecommunications*, Cambridge, MA/London: MIT Press.

(2000) with Uwe Schimank (Eds.), *Gesellschaftliche Komplexität und kollektive Handlungsfähigkeit*, Frankfurt am Main: Campus.

(2001) Co-Author as member of the Committee to Study Global Networks and Local Values, Computer Science and Telecommunications Board, National Research Council, *Global Networks and Local Values. A Comparative Look at Germany and the United States*, Washington, DC: The National Academy Press.

(2001) with Ursula Holtgrewe, 'De-commodifying software? Open source software between business strategy and social movement', *Science Studies* 14 (2): 43–65.

(2002) 'Technik als Akteurfiktion', in Werner Rammert and Ingo Schulz-Schaeffer (Eds.), *Können Maschinen handeln? Soziologische Beiträge zum Verhältnis Mensch und Technik*, Frankfurt am Main: Campus: 119–139.

(2003) *Institutionalistische Technikanalyse: Stand und Perspektiven*, Discussion Paper 03/8, Köln: Max-Planck-Institut für Gesellschaftsforschung.

(2004) with Bernd Holznapel, 'Sectors and strategies of global communications regulation', *Knowledge, Technology & Policy* 17 (2): 19–37.

(2004) with Eric Iversen and Thierry Vedel, 'Standardization and the democratic design of information and communication technology', *Knowledge, Technology & Policy* 17 (2): 104–126.

Bernhard Wieser

Email: wieser@ifz.tugraz.at

Bernhard Wieser studied Education and Philosophy at the University of Graz with a focus on lifelong learning. He is a researcher at the IFZ-Inter-University Research Centre for Technology, Work and Culture in Graz. He is also a lecturer at the University of Graz and Honorary Research Associate of CESAGen at Lancaster University/UK. More specifically, Bernhard Wieser is in charge of the fellowship programme at the Institute for Advanced Studies on Science, Technology and Society (IAS-STs).

Research interests: In his research Bernhard Wieser focuses on the ethical, legal and social aspects of genome research. He researches in the area of Public Understanding of Science with a special focus on Biotechnology, Science – Technology – Society. At IFZ he is currently working on two projects: 'Prenatal Testing: Individual Decision or Distributed Action?' and 'Let's talk about GOLD: Analysing the interactions between genome research(ers) and the public as a learning process'. Previous projects have included research on the development of problem solving strategies related to the controversy over genetic engineering and the implications of science communication on genetic engineering.

Selected Publications

(2002) 'If the Public only knew! On learning about genetic engineering', in Arno Bammé, Günter Getzinger and Bernhard Wieser (Eds.), *Yearbook 2003 of the Institute for Advanced Studies on Science, Technology and Society*, München: Profil: 295–311.

(2003) 'Information as intervention?' [orig. German: Information als Intervention?], in Esther Schmidt (Ed.), *Interventionswissenschaft – Interventionsforschung. Erörterungen zu einer Prozesswissenschaft vor Ort*, WBI Klagenfurter Beiträge zur Interventionsforschung, Band 2, IFF, Klagenfurt: 127–135.

(2004) 'What is critical education?' [orig. German: Was ist kritische Bildung?], in Werner Lenz and Annette Sprung (Eds.), *Kritische Bildung? Zugänge und Vorgänge. Arbeit – Bildung – Weiterbildung*, Band 1, Münster: LIT Verlag: 149–166.

(2004) with Sandra Karner und Wilhelm Berger, 'Who is responsible for distributed action? On the paradoxes of prenatal testing', Conference paper for '4S&EASST Conference', Paris, Frankreich, 25.–28. August 2004.