RC23 NEWSLETTER



August 2017

In this issue:

- P2 Nadia Asheulova. President's Introduction
- P3 Nadia Asheulova. RC23's Semicentennial Birthday: Celebrating 50 Years of Research on the Sociology of Science and Technology
- P6 Reports from Session Organizers about the Third ISA Forum held in Vienna in 2016
- P17 Call for Nominations The Robert Merton Award for Distinguished Contributions to the Sociology of Science and Technology
- P18 Juha Tuunainen. STS in Finland

- P19 Science and Technology Studies Journals published in Finland and Nordic Countries
- P20 Special Issue of Science & Technology Studies
- P22 Conference Announcements
- P26 Book Announcements
- P27 Section Officers

Forthcoming February 2018 Newsletter

Please send articles, book announcements and other material by January 1, 2018 to:

Gary Bowden, RC23 Secretary glb@unb.ca



RC23 President's Introduction August 2017

by Nadia Asheulova

Dear RC23 members,

As President of RC23, I welcome you to the Summer Issue of the RC23 Newsletter!

Last year, 2016, was a jubilee year for RC23, marking the semicentennial (50 years) of its existence. This issue begins with a brief history of the founding and legacy of RC23 and its contribution to the sociology of science and technology. There are lots of interesting facts and well-known figures associated with this legacy. For those of you who have worked in the area for decades, it is an interesting trip down memory lane. For those of you who are new to the sociology of science and technology, your appreciation will be strengthened through an awareness of the way that RC23 has contributed to the development of the field.

A second article, written by board member Juha Tuunainen, surveys STS in Finland. We are very grateful him for this initiative, which provides a nice complement to the first article. In contrast to the traditional role of RC23 ISA in facilitating the international development of STS, it is important to recognize the distinctive flavors that the discipline takes on in specific countries. Juha's article provides an excellent introduction into the nature of STS in Finland.

This issue also provides detailed reports from the session organizers of the Third ISA Forum of Sociology (Vienna, Austria, 2016). As you can tell, RC23's sessions were very successful, with diverse presentations covering a wide range of sociological perspectives and inspiring a great deal of productive discussion.

Looking forward to the future, the Interim RC23 Workshop "Using Science Policy to Facilitate Innovation, Excellence and Global Cooperation" will take place in one month in St. Petersburg (September 18-19). The preliminary program is ready and has been posted on the RC23 web-page. Thanks to all participants for the interesting abstracts!

We also look forward to having a strong presence at the XIX ISA World Congress of Sociology to be held July 15-21, 2018 in Toronto, Canada. As outlined in the Call for Abstracts, the deadline for submission is September 30, 2017. We encourage all who have not yet submitted an abstract to do so. It promises to be an exciting conference. In specific, the first "Robert Merton Award for Distinguished Contributions to the Sociology of Science and Technology" will be presented. You don't want to miss this!

Best regards, Nadia Asheulova

RC23'S SEMICENTENNIAL BIRTHDAY:

CELEBRATING 50 YEARS OF RESEARCH ON THE SOCIOLOGY OF SCIENCE AND TECHNOLOGY

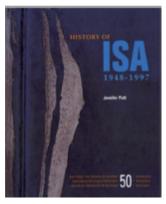
The International Sociological Association is fifty years of age.

This is both very young and quite old.

It is surely time to take stock, but we can also say that there is a future that remains to be constructed.

Immanuel Wallerstein

The International Sociological Association (ISA) originated in 1948 as an initiative of the Social Science Department (SSD) of the United Nations Educational, Scientific and Cultural Organization (UNESCO). This initiative resulted in the ISA and similar worldwide associations in other social science disciplines (economics, law, and political science). Jennifer Platt notes in her book "A Brief History of the ISA: 1948-1997" that this initiative was dictated by the political situation after the Second World War [Platt, 1998, p. 13]. These professional associations were not simply expected to encourage intellectual and cultural exchange, but also to promote democracy and serve broad social objectives:



to knit together social science scholars of the world... with the expectation that this will increase international understanding... to raise the level of social science research in the belief that greater knowledge in these fields will benefit mankind... to promote research in fields crucial to the establishment of a peaceful world order... [Angell, 1950, p. 282].

The SSD first considered setting up the ISA at a meeting in Paris held on October 14, 1948. The discussion focused on:

promotion of sociology as science and action (the encouragement in all countries of sociological study, teaching and research, with emphasis upon the scientific character and practical contribution of sociology); international research (encouragement of cross-national work and the creation of instruments suitable for comparative studies); exchange of information (summaries of international trends, an information bulletin, an abtracting service, a centre of primary documentation, the distribution of microfilms of important source materials, and the encouragement of translation) and personal contact (including international meetings, the exchange of teachers and students, and support for research outside the researcher's country) [Platt, 1998, p. 14].

In furtherance of these goals, the decision was made to hold a "constituent congress". The first such congress was held in September 1949. The Research Committee on Sociology of Science (RC23) was founded at the VI World Congress in Evian (France) in 1966, a story captured in the ISA Bulletin 29:

There was a very lovely successful discussion among R. Aron (France), B. Barber (USA), J. Ben-David (Israel), I. Dubska (Czechoslovakia), S. Dedijer (Sweden), D. Goldschmidt (FRG), R. K. Merton (USA), A. Podgorecki (Poland), J. J. Salomon (France), A. Szalai (Hungary), E. Walter (Switzerland), Anatoly Alekseevich Zvorykin (USSR) and others [ISA Bulletin 29, p. 8].

Robert K. Merton was elected President of RC23 and Joseph Ben-David became the first Secretary. There is an interesting document at the Archive of the Russian Academy of Sciences

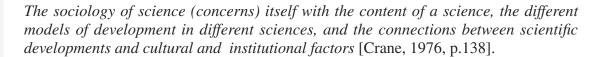


 a transcript of the meeting's report of the VI International Congress of Sociology in Evian made by Anatoly Alekseevich Zvorykin. A. A. Zvorykin said:

...I think that the foundation of the Research Committee on Sociology of Science was a very important initiative. The Committee filled the essential gap, which was still in the International Sociological Association. Committee was created by the leadership of R. K. Merton... [Transcript, Archive of the RAS].

Four years later (September, 1970), the VII World Congress was held in Varna. The scientific program of the Committee included 3 academic sessions. Among them was one section devoted to the institutionalization of science and another to science policy. Researchers from 10 countries took part in an active discussion. The USA was the leader in the number of speakers. They presented 11 papers, the USSR – 4, Bulgaria – 3, England -3, France -2, GDR -1, Germany -1, Hungary -1, Israel -1, Poland -1. Members of the Committee re-elected Robert K. Merton for a second term as President and Albert L. Mok (Netherlands) became the Secretary. Meetings of sociologists of science were held not only during the World Congresses, but in between as well. An international conference under the aegis of the British Sociological Association was organized by RC23 Secretary Albert L. Mok at the City University of London, Great Britain, September 11-15, 1972. 32 members of RC23 from 13 countries came to the UK to advance our understanding of the sociology of science. 30 scientific papers were presented in seven sessions devoted to the following topics: Macro Theories of Science; Studies of Scientific Communities; Metaphysics and the Study of Science; Criticism of the Positivistic Conception of Science; The Science of Science: Studies of Research Areas; Science in Society; Institutional Developments in Science.

The conference resulted in the publication of book "Social Processes of Scientific Development" edited by Richard Whitley [Whitley, 1974]. Many papers of this work are highly cited to this day. The book presents papers on the structure of scientific discipline (Stuart S. Blume and Ruth Sinclair), on science of science as a new research field its function in prediction (Janos Farkas), on the elements from the debate on science in society: a study of Joseph Ben-David's theory (Thorvald Gran), on mono-and polyparadigmatic developments in natural and social sciences (Cornelis J. Lammers), on the societal influences on the choice of research topics of biologists (Albert Mok and Anne Westerdiep), on the development of sociology in the Netherlands: a network analysis of the editorial board of the Sociologische Gids (Wouter van Rossum,) on the cognitive and social institutionalization of scientific specialties and research areas (Richard Whitley). As Diane Grane noted in her review of this book, the interest in the sociology of science has increased considerably in Europe, particularly in England. European sociologists of science had been developing a new orientation toward the field described by Richard Whitley:



Another RC23 sponsored meeting took place six months later (April 10-13, 1973) in Warsaw, organized by Zdislav Kowalewski with the active support of the Polish Academy of Sciences. In 1974, RC23 met in Toronto at the VIII World Congress of ISA and elected a new Board: President Joseph Ben-David (Israel), Vice-President Gennady Dobrov (USSR), and Secretary Peter Weingart (FRG). RC23 continued to actively cooperate with professional associations and societies. A joint meeting was held with the newly formed Society for the Social Studies of Science (4S) on November 4-6, 1976 in Ithaca, New York. Devoted to a comparative review of empirical research in the sociology of science, this milestone conference, at which Bruno Latour and Steve Woolgar first met each other leading to their influential collaboration *Laboratory Life*, was supported by a special grant to RC23 from the Research Coordinating Committee of the ISA. Interested individuals can find a copy of the original program online at: http://www.4sonline.org/files/orig_prog.doc

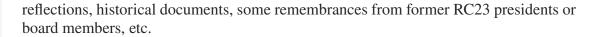
On September 7-9, 1977 the Institute of Sociology and the Research Group of Science Organization of the Hungarian Academy of Sciences organized a conference in Budapest. 38 foreign and 30 Hungarian researchers took part in it. Janos Farkas edited the Proceedings of that conference: *J. Farkas (ed.) Sociology of Science and Research. Papers of the International Sociology of Science Conference in Budapest, September 7-9, 1977. Budapest: Akademiai Kiado, 1979.*

The activities of RC23 continued during the IX World Congress (August 1978, Uppsala). In addition to sessions on Historical Sociology of Science, Science and Ethics, Sociological Analysis of Scientific Knowledge, Science and Politics, and Research on Research; RC23 organized a joint session with RC33 on the Logic and Methodology of Sociology. Key members of the new board elected in Uppsala were Peter Weingart (President), Michael Mulkay (Vice-President), and Jerry Gaston (Secretary).

RC23's collaborative efforts (this time with PAREX, the European network of Science Studies Research Groups) continued on September 26-28, 1980 RC23 with the joint organization of a bi-annual meeting in Deutschlandsberg near Graz, Austria. It was at this meeting that the decision was made to establish the European Association for the Study of Science and Technology (EASST).

In 1993 the Research Committee on Sociology of Science of the International Sociological Association was renamed as the Research Committee on Sociology of Science and Technology. The history of RC23 is very rich by scientific events and surely demands to study further. The archive of the International Sociological Association is located at the International Institute of Social History (Amsterdam, the Netherlands), where there are the correspondence, programs of events, meetings reports, publications and so on [Archive of ISA].

Correspondence between the first president (R.K. Merton) and other members of the board is located at the Archival Collections of the Columbia University Libraries [Archival Collection]. In addition, this is a good opportunity to collect interviews with the former RC23 board members and other well-known researchers involved with RC23 in the past. A new section of the RC23 Newsletter, "Remembrances", was introduced and will be used to preserve the memories and traditions of RC23 and create a sense of shared culture and tradition among us. Remembrances will take a variety of forms:



In 2016 (as part of the jubilee year for RC23) the Executive Committee of the International Sociological Association approved the RC23 award in honor to the first president R. K. Merton: "The Robert Merton Award for Distinguished Contribution to the Sociology of Science and Technology". The award will be granted every four years to a living scholar who is internationally recognized for significant contributions to the sociology of science and technology that have been made over a period of at least two decades http://rc-23.nw.ru/rc-23-award

The half-century of activity by the RC23 is undoubtedly of great interest to the all members of the science and technology studies community and will be studied further.

Literature

- 1. Angell, R. E. UNESCO and Social Science Research // American Sociological Review 15: 282-7, 1950
- 2. Archival Collections of the Columbia University Libraries URL: http://findingaids.cul.columbia.edu/ead//nnc-rb/ldpd_6911309
- 3. Archive of the International Sociological Association at the International Institute of Social History (Amsterdam, the Netherlands) URL: https://search.socialhistory.org/Record/ARCH00648
- 4. Crane, Diana. Review on Social Processes of Scientific Development by Richard Whitley // Theory and Society. Vol. 3, No. 1 (Spring, 1976). Pp. 138-141
- 5. ISA Bulletin 29, Summer, 1982 URL: http://rc-23.nw.ru/
- 6. Platt, Jennifer. History of ISA: 1948-1997. ISA, 1998 URL: http://isa-sociology.org/
- 7. Whitley, Richard (ed.) Social Processes of Scientific Development, Routledge, 1974
- 8. Transcript of the meeting of the VI International Congress of Sociology in Evian (France) in 1966. The Institute of Philosophy. Archive of the Russian Academy of Sciences. F. 1922. Op. 1. D. 1163. L. 162–165, 168–170

Conference Report

THE THIRD ISA FORUM

THE FUTURES WE WANT: GLOBAL SOCIOLOGY AND THE STRUGGLES FOR A BETTER

WORLD HELD IN VIENNA, AUSTRIA, 10-14 JULY 2016

Summaries of the RC23 Sessions by the Session Organizers



The Politics of Science and Technology: Authority, Expertise and Democratic Participation, organized by Gary Bowden

It was mid-morning when we started, but the humidity – and the lure of the beer garden – was already strong. Against these odds, we persevered and, indeed, triumphed. The diversity among the four papers, coupled with the active participation of the 30-40 individuals in the audience resulted in an interesting and engaging discussion.

The session focused on the diverse interconnections among the authority of science as an institution, the social bases of different forms of expertise (e.g. trained scientists and engineers, the local knowledge of fishermen or farmers, the traditional knowledges of aboriginal groups, etc.), and the construction of boundaries which either hamper or facilitate the democratic involvement of individuals with diverse forms of expertise.

The first paper, When Public and Science Form a Community of Practice – Organizing Participation in Technology Development in a German Mining Region by Alena Bleicher, Magdalena Wallkamm, and Martin David, used the case of deep geothermal energy technology and technologies for secondary mining to explore the idea of a 'community of practice' linking scientists and local citizens with mining expertise but excluding participation by local citizens lacking such expertise.

The second paper, *Building Alternative Infrastructures for Digital Communications: Technoscientific Activism in the Italian Wireless Community Network* by Stefano Crabu and Paolo Magaudda, provided a detailed description of a large scale (320 node) non-profit Italian wireless community network constructed by a grassroots coalition of scientists, hackers, and lay people as an alternative to commercial internet service providers. As with the first paper, the concept of community played a central role – but in this case the community ideals extended beyond shared scientific and technical expertise to include shared political ideals which were used to draw a boundary between themselves

and the hierarchical global governance that characterizes the internet.

The third paper, *The Contours of Participatory Dynamics in Sustainability Research at Science-Society Interface* by Livia Fritz, shifted the focus somewhat through an examination of the different forms of participatory dynamics between academics and non-academics in a variety of different sustainable development projects.



In contrast to the first two papers, this one dealt with a topic (sustainability research) where the research hierarchy and funding bodies had explicitly embraced the concepts of transdisciplinarity and multiple forms of expertise creating a comparatively top-down model of citizen-scientist engagement.

The fourth and final paper, *Sior: A New Tool to Evidence Social Impact of Science* by Teresa Sorde-Marti, Mar Foraster, Emilia Aiello, and Nataly Buslon, widened the scope of the discussion even more through an examination of the Social Impact Open Repository, an international database designed to both document the social impact of social science and humanities research and highlight tools that may prove useful to future researchers in enhancing the impact of their research.

As these brief descriptions illustrate, the papers covered a diverse set of topics and approaches but, more significantly, cohered around a contrast between bottom-up and top-down forms of organizing and evaluating citizen-scientist engagement – a contrast which resulted in lively conversation that continued on during a visit to the beer garden.

Globalization of Science and Technologies: Present Challenges, Future Acceptance, organized by Liliia Zemnukhova

The session *Globalization of Science and Technologies: Present Challenges, Future Acceptance* gathered papers dealing with the issues of national and regional contexts in science and technology (S&T) policies and globalization. The agenda was to discuss the peculiarities of the S&T development as well as main obstacles and solutions on various levels, including individual and organizational.

The first presentation entitled *Many Diverse Sciences in a Multipolar World* and presented by Ilkka Kauranen was devoted to three traditions of sciences and technologies, namely the Occidental tradition, the Amerindian tradition, and the Sino tradition. Each of them had their own rules of legitimization and challenges, though the former had been dominating for at least the last 300 years. The two latter traditions, on the contrary, offer new paths forwards to overcome the limitations of the Occidental tradition.

The following talk How New Technologies from the South are Taken by the Economic North: Future Acceptance? was delivered by Jaime Jimenez Guzman. This co-authored paper discovered new technologies from the economic South and major obstacles for their development. The focus was made on governments and institutions facilitating production, sponsoring, and distribution of new



technologies in the context of global but unequal competition and consumption.



The next presenter Natalia Shmatko introduced the paper Careers Development and International Mobility of Russian Doctorate Holders, which was devoted to the results of empirical research of the PhDs' labor market and their employability in the context of academic mobility. Mobility was treated more as a complex phenomenon and a social process. The diachronic mobility was

used to study individual trajectories of researchers, whereas synchronous mobility was intended to trace changes of positions in and between several research organizations.

The latter appeared to be less studied so far.

The final presentation entitled *The Types of Communities in the Structure of Innovative Society* was delivered by Olga Miliuchikhina. The innovative development was considered as dependent on innovative potential and its implementability in everyday life. Several types of communities were



distinguished based on these two factors: innovative engines, copy-paste communities, latecomers, stark communities, and imitators. Their disposition determines the development of social structure and society.

The contributors and other participants had an opportunity to discuss the papers during the Q&A session after the presentations. The most disputable issues referred to the influence of global trends and balances of power in the sphere of S&T on local and regional scales. We still have more questions than answers and more challenges than decisions. However, it is inevitable to trace these processes and to compare the results in order to support mutual research interests and to generate solutions or recommendations.

Governance in Science and Technology: Research, Innovation and Knowledge Sharing, organized by Luísa Veloso, Paula Urze and Isabel Amaral

The session *Governance in Science and Technology: Research, Innovation and Knowledge Sharing*, chaired by Luísa Veloso, Paula Urze and Isabel Amaral, hosted 6 presentations. Laura Cruz-Castro, Pablo Kreimer and Luis Sanz-Menedez shared a comparative study about the evolution of *Public Research Systems of Argentina and Spain*, focusing on the changing role of their main Public Research Centres (PRC) – the National Research Councils (CONICET and CSIC) – as well as their relationships with the universities within each public research system. One important conclusion was that

the public research systems in both countries were relatively similar: Government owned research centres had a bigger role in research than universities, but while the Spanish PRS has become more pluralistic and competitive with loss of centrality of the CSIC, in Argentina the CONICET has been able to remain as a quasi-monopolistic player in the PSR.

Christine Bailley and Silke Haarich presented a methodological proposal to measure intangible assets, i.e., the GOA Governance and Capacities Assessment Tool©, a new method that has been tested during the implementation of the regional innovation strategy in the region of Aysen in Chile. It was an interesting case also from the point of view of promoting new types of innovation (non-technological, social, eco-innovation, innovation for sustainability), as the development paradigm of the region is based on its natural resources and on sustainable development rather than on industrial or technological growth.

The paper by Irina Dezhina focused on Russian-speaking researchers who live and work abroad to evaluate their motivations and previous experiences in interactions/collaborations with Russian universities, research institutes and government agencies. The results demonstrated that the respondents were actively involved in both government-supported and independent collaborative research activities with Russia.

Celicia Manzo and Francesco Ramella presented a paper about the Fab Labs in Italy, small workshops, open to the public that occurred in recent years all over the world. Italy was presented as a particularly interesting case, because while the official indicators describe the economy as not very innovative, it shows a surprising development of the Fab Labs.



Georg Reischauer focused his presentation on how public organizations can stimulate the diffusion of knowledge based on relational strategies focusing on industry-university interaction, proposing an interesting input to the "Triple Helix" model.

Finally, Wilfred Wunderlich discussed the factors that maintain creativity, namely keeping the balance between two social dilemmas: the destruction of the capacities in many research and higher education institutions and the growing demand of humanity and ethical principles.

The session was quite rich and heterogeneous allowing a reflection about governance in science and technology from the institutional to the individual point of view. The diversity of the methodological approaches also permitted a very interesting discussion. Finally, we would like to stress how the papers presented were either centred on the most institutionalized processes of governance, such as the national research councils, or in other initiatives that deserve our attention for its spreading and multiplication capacity, as it is the case of the Fab Labs.

Sociology of Innovation: The Social and Cultural Structure of Innovative Societies, organized by Manuel Fernández Esquinas and Madelon van Oostrom



Why this session?

Innovation has always been a topic studied by sociologists, but rather abandoned to other disciplines as a distinctive field of study (examples: economics of innovation, geography of innovation, etc.). Most of our colleagues from other disciplines use sociological concepts and theories (social capital,

networks, institutions, classes etc.), but somehow they don't identify them in the sociology discipline. Yet, sociological concepts and theories sometimes are not visible enough and well incardinated in the dominant approaches of innovation studies (i.e. systems of innovation). Although, sociological concepts and theories can be very useful for contributing to the interdisciplinary field of "innovation studies". Innovation is thus a strategic research site for sociology.

Goals of the session:

- Help to make visible different experiences and approaches of sociologists working on innovation;
- compare perspectives and find similarities in research strategies used
 by sociologists with different theoretical and empirical backgrounds; and
- help to define (tentatively) an agenda in the sociology of innovation in order to situate innovation as a relevant topic: What is sociology of innovation? Are there some common theoretical concepts and research questions that help to map the field?

Some common concepts and points of view in the presentations:

- Importance of societal traditions on innovation: habitus, cultural frames...;
- values and trust as main factor on innovation, and moderating factor between social networks on entrepreneurs;
- attitudes toward change, attitudes toward knowledge and types of relationships as components of innovative behavior;
- significance of knowledge and power in the measurement of innovation;
- institutions, social networks and cognitive frames as components of a social topography of innovation;
- culture and forms of social capital and their links with organizational change and knowledge management in firms; and
- importance of socio-structural factors for innovation (actor networks, institutions and cognitive frames) and how these interrelate with social innovation.

Conclusions

The session depicted a wide representation of contributions from the emergent specialty of sociology of innovation, with both quantitative and qualitative empirical research results recently conducted in European, South American, African and Arabian countries. A fruitful discussion on methodological, epistemological and conceptual issues followed, with the active participation of contributors and assisting audience.

It is worth mentioning that the session received over 50 initial contributions, which shows the growing interest in the topic. In consequence, the session organizers asked ISA Forum committee to make space for another session with additional slots during the congress, which we would have been pleased to run as well. Finally, ISA Forum committee decided to redistribute the excess of contributions among other sessions. Nevertheless, it is a clear sign of the potentiality of the future development of Sociology of Innovation.

One of the main outcomes of the session is a forthcoming book on this topic with contributions of several authors that participated at this special session and others at ISA Forum, amongst other authors. During the editors meetings at ISA Forum contact was made with an editor of Edward Elgar Publishing, who resulted interested in publishing a thematic book about Sociology of Innovation, which session organizers will coordinate. Its tentative title is "Sociology of Innovation: Theoretical and Empirical Developments toward a New Research Agenda" and is due for publishing in 2018.

Global Science and International Collaboration: A Gender Perspective from the South, organized by Alice Abreu and Judith Zubieta Garcia

The session aimed at discussing international collaboration from a double point of view, from the perspective of the South and from a gender perspective. The idea was to explore how collaboration networks were established and see how gender influenced their composition. The session was well attended, with about 25 people present. After the presentations, a lively discussion took place. Four papers were presented. The fifth scheduled participant was not able to be present.

Lisa Frehill's presentation was *Enhancing Gender Equity in Opportunities for International Collaboration: Policy Implications of Three Studies*. It summarized results from three evaluation studies conducted over the past decade, implementing multiple research methods to describe institutional policies that enable science faculty and students at various types of institutions to reap the benefits of international collaborations. The experiences upon which surveys and interviews were administered spanned 2001-14; similar items included in all three studies enabled synthesis of results across three diverse sets of participants (i.e., men and women; individuals from different types of universities and types of positions). Data from a working meeting of international experts on gender and cross-national collaboration was also included. The author examined U.S. scientists' assessments of issues related to gender and "comfort" in the international settings where the collaborations took place, making comparisons across world geographic areas. It closed with concrete policy recommendations for universities, government and non-government funders of international collaborations, and individuals.

Joao Marcelo Ehlert Maia and Robert Morrell were themselves an example of international collaboration and their presentation was entitled *Doing Science in the South: Negotiating Centrality and Marginality in the Process of Knowledge Production on a Global Scale.* They addressed the issue of academic collaboration by discussing North/South relations in three domains of knowledge: HIV, climate change and gender studies. Each domain was interdisciplinary, crossing natural science, social science and the humanities; each was recently constructed or expanded; each was significant for public policy. Moreover, each was a domain where knowledge from the global South (broadly conceived) has played a significant role. Their 4-year research program focused on three countries in the South (Australia, Brazil and South Africa) and examined knowledge workers and

their labor processes (including gender relations and its effects on knowledge practices), knowledge institutions (including workplaces and communication systems), economic strategies and the resourcing of knowledge work and workforces. The project was multimethod, including life-history interviews, citation-context analysis, organizational ethnography and documentary research. The authors outlined the main findings of the research, which addressed the different patterns of centrality and marginality within and between domains; the space for negotiation and autonomy in the process of knowledge production on a global scale; and 'extraversion' as a key feature of intellectual work in the South even though it is found in various forms.

Ivett Estrada and Eduardo Remedi presented a paper entitled *International Collaboration* in a Department of Applied Physics in Mexico: Scope and Character Analysis from a Gender Perspective. They analyzed the characteristics and roles of international collaborations established by male and female researchers from the Department of Applied Physics at the National Polytechnic Institute's Center for Research and Advanced Studies (Cinvestav-IPN, for its acronym in Spanish). The work was carried out together with the researchers from the department that included the construction of their coauthorship networks of scientific production during the period from 2000 to 2013 as well as their reflection on their insertion and enrollment mechanisms in international projects. The authors analyzed the data from a gender perspective that focused on the differences between the types of international collaboration, access methods, and the roles of male

and female researchers the physics department still characterized by low female participation. Additionally, they discussed at the implications encountered by these men and women as a result of their enrollment in international collaboration projects responding to global demands as compared to those of national or local character which seek to address issues from the region where they carry out on their scientific activity.



Finally, Alice Abreu made a presentation entitled *The Construction of Excellence in Science: Problems, Challenges and Advancements from a Gender Perspective.* Arguing that in science, excellence is an important concept used to justify many decisions in a scientific career, the author examined, from a gender perspective, the different stages of a scientific career and how it is construed to arrive at the highest levels of leadership and decision making. Career paths of men and women are very different and it is necessary to unravel the complex interactions between institutional arrangements and personal preferences that might explain why so few women reach the top. The author also discussed at how excellence is defined and measured, and how this affects the results for men and women.

The Knowledge Society and the BRICS: Economic and Social Implications, organized by Sonia Guimarães

The session aimed at discussing among researchers coming from the BRICS countries (Brazil, the Russian Federation, India, China and South Africa) issues related to

their governments' policies concerning the knowledge-intensive economy, long-term investments in higher education, support for research and development, incentives to promote the relationship between university and firms, stimulation of innovation, as well as incentives designed to support innovative micro-, small and medium-size enterprises (SMEs). The authors and papers of the session were as follows:

Margarita Bershadskaya and Yulia Voznesenskaya: Brics's Countries in the Webometrics Ranking of World Universities. The purpose of the study was to evaluate the characteristics of higher education systems of BRICS based on the results of the Ranking Web of universities.

Galina Gvozdeva and Elena Gvozdeva: Labor Practices and Expectations of the Russian Young Scientists and Innovators. The study focused on the labor practices of young people engaged in science and innovation entrepreneurship, aiming at describing the relationship between motivation, incentives and job satisfaction expectations, considering labor youth motivation and the influencing institutional conditions, the effective and adaptive models of labor behavior.

Vinod Chandra: *Building the Knowledge Society through Digital India Programme*. The paper presented the results of an empirical study that assessed the experience and understanding of climate change and natural disasters of 300 youth of age group between 12-17 years from two senior secondary schools in Lucknow city, assuming that young people have a crucial role in combating climate change and natural disasters.



Anatoly Ablazhey: Adaptive Strategies of Russian Scientists in the Era of Reforms. The study's main purpose was to assess the social impact of the reform to the scientific sphere, its current and long-term consequences especially for the scientists themselves.

Xiaohua Zhong and Shuqin Zhou: *China's New Strategy of "Internet Plus" and Its Social Impacts*. The paper explored the social impacts

of the internet-based innovation through big data and empirical studies in some Chinese metropolis, aiming at investigating whether innovative entrepreneurship leads to new social mobility and social (in)equality; the consumption-oriented industry influences the social interactions both online and offline; the integration of crossover resource challenges the public service system and governance capacity.

The presentations were followed by an interesting debate that contributed for improving our knowledge on how the emergent countries are catching up facing the new forms of development based on digital technologies.

How Are Science and Technology Engaged in Eco-Innovations? organized by Sophie Nemoz

The session organized in collaboration with RC23 Sociology of Science and Technology and RC24 Environment and Society addressed the topic of technical resolution of environmental issues by opening new paths for analyzing the production, the adoption

and the institutionalisation of eco-innovations, but also the mobilization of skills and knowledge. Since the first occurrence of the term in 1996 by Fussler and James, eco-innovations have exhorted a cross-disciplinary knowledge production. They are said to be "clean", sometimes even "smart" in respect of their ecological performances. Their resonance is noticeable among the levers to activate with a view to the sustainable development of current societies. The challenges involve a technical dimension that relies heavily on exact sciences, but they also refer to political, economic, social and territorial processes that receive increasing attention from and for sociology.

The session was well attended with about 40 persons. Researchers from Germany, France, Italy, Canada and the UK discussed the sociotechnical innovations as a cornerstone of societal change towards more sustainable practices in various areas. Below is a list of papers presented in the session:

- 1. The Relational Sociology of Shaping Eco-Innovations by Martin David, Alena Bleicher and Magdalena Wallkamm.
- 2. Beyond Incineration? Beyond Incineration? Representing Gasification for Municipal Solid Waste (MSW) Treatment by Les Levidow and Paul Upham.
- 3. The Social Effects of Eco-Innovations in Italian Smart Cities by Beretta Ilaria.
- 4. Ambivalences Experimental Devices on the Appropriation and Diffusion of Eco-Innovations in the Field of Energy by Cecile Caron.
- 5. *Join the Eco-Innovation Bandwagon: Evidence from Chinese Firms* by Yuan Zheng Li.
- 6. The Intertwining of Macro-, Meso- and Micro-Social Scales to Understand Innovation in Sociology. The Case of Eco-Housing in Europe by Sophie Nemoz.

The session was stimulating and fruitful in insights on the multiple perspectives of social interrelations which the novelty is ultimately based upon. Beyond optimism often connected to the potential process of sustainability transitions, all presenters underlined the ambivalent dynamics and effects of eco-innovations through time and space. Overall, the empirically-informed contributions offered a comprehensive overview of changes overestimated by technocratic discourses.

Roundtable for the Early Career Researchers, organized by Nadia Asheulova and Matthias Gross

The idea of roundtables for "early" researchers in the field of Sociology of Science and Technology was to offer a forum for discussion and debate on ideas in the making so that

especially junior scholars find a space to openly discuss and utter their word but also talk about problems about their ongoing work. The first obstacle in our roundtable was that we had to place two roundtables in one room. In addition the acoustics of the room were less than perfect so we decided ad hoc to merge the two roundtables into one. Given that the prerequisites for our roundtable were not really perfect we must say the discussions went very well.





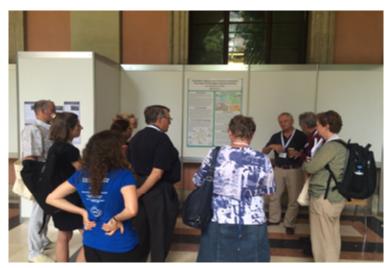
This, of course, was mainly due to the fascinating topics by RC23's (mainly) PhD students that ranged from advanced manufacturing in the German Textile Industry (Daniel Kerpen, Jacqueline Lemm, and Mario Lohrer) and IT professionals (Liliia Zemnukhova), sociology in "foreign" fields (Catarina Egreja), methodological challenges in qualitative interviewing (Oliver Berli), applied physics in Mexico (Ivett Estrada), renewable energy in

Portugal (Luis Junqueira) or the history of International Institute of Applied Systems Analysis (Michael Hutter).

In short, we think the roundtable format for junior scholars is extremely important for RC23.

Poster Session A Sociological View for Science and Technologies, organized by Anatoly Ablazhey

The poster session was extremely productive in discussion. RC23 members participated in it with great interest. We have excellent presentations from our colleagues. Thanks them for such activity!





Call for Nominations

THE ROBERT MERTON AWARD FOR DISTINGUISHED CONTRIBUTIONS TO THE SOCIOLOGY OF SCIENCE AND TECHNOLOGY

Research Committee 23 (Sociology of Science and Technology) of the International Sociological Association (ISA) is seeking nominations for *The Robert Merton Award for Distinguished Contributions to the Sociology of Science and Technology* to be awarded at the 2018 ISA World Congress in Toronto, Canada.

The award will be granted to a living scholar who is internationally recognized for significant contributions to the sociology of science and technology that have been made over a period of at least two decades. Thus, the award is intended to recognize and showcase the outstanding, long-term achievement of an individual scholar to the field rather than the excellence of an individual book or single idea.

Currently serving members of the RC23 Board or the Award Committee are not eligible to receive the award.

Nominations can be made by any member of ISA and/or of RC23 (excluding members of the Award Committee) and must be supported by at least two other members of RC23 and/or ISA. Nominations must include the name of the nominee, a CV, the list of publications on which the nomination is based, and a cover letter that provides a rationale for the nomination. Nominations should be sent to the Chair of the Awards Committee, Jaime Jiménez Guzmán, at jimen@unam.mx.

Juha Tuunainen

SCIENCE AND TECHNOLOGY STUDIES IN FINLAND

In Finland, research and teaching in science and technology studies is being pursued in a dispersed manner by scholars located in many universities and public research organizations all over the country. In this brief overview, some of the most important institutional home bases of STS are introduced.

The Finnish Society for Science and Technology Studies

The Finnish Society for Science and Technology Studies was founded in 1985 to support the research, teaching and publication of science and technology studies in Finland. The society brings together a broad range of researchers, such as sociologists, philosophers, historians, psychologists and many other experts who are interested in the study of science and technology studies. The major activities of the society include annual seminars and workshops, and the society also publishes an international peer-reviewed journal called Science & Technology Studies (formerly Science Studies, see information elsewhere in this newsletter). In addition to being partly hosted by The Finnish Society for Science and Technology Studies, the journal is also the official journal of the European Association for the Study of Science and Technology.

Research Centre for Knowledge, Science, Technology and Innovation Studies (TaSTI), University of Tampere

Research Centre for Knowledge, Science, Technology and Innovation Studies (TaSTI) pursues research on knowledge, science, technology and innovations as central processes and structures in contemporary societies. TaSTI is Finland's leading research centre in its field. It employs over 30 people and is a part of the School of Social Sciences and Humanities (YKY) at the University of Tampere. TaSTI has an extensive collaboration network both locally, nationally and internationally. It is comprised of four research groups. For more information about the center and its research groups, please visit the website at http://www.uta.fi/yky/en/research/tasti/index.html

Other universities

At other universities in Finland, science and technology studies has somewhat less formal visibility than is the case with the University of Tampere. Department of Social Research at the University of Helsinki, for instance, hosts a professorship in science and technology studies and organizes graduate and post-graduate education in the field (e.g., science studies and social theory seminar). At Aalto University, science and technology studies is organized across the intersecting areas between innovation studies, design research, research on sustainability transitions and history of technology with Master's and PhD education as well. At the University of Oulu, the situation is similar as in Aalto with science and technology studies activities spanning across such disciplines as business studies, history, information science, geography, philosophy as well as information and communication technology.

SCIENCE AND TECHNOLOGY STUDIES JOURNALS PUBLISHED IN FINLAND AND NORDIC COUNTRIES

Science & Technology Studies - Official Journal of the European Association for the Study of Science and Technology (EASST) and the Finnish Society for Science and Technology (FSST)

Science & Technology Studies is an international peer-reviewed journal dedicated to the advancement of scholarly studies of science and technology as socio-material phenomena, including their historical and contemporary production and associated forms of knowledge, expertise, social organization and controversy. This includes interest in developing Science and Technology Studies' own knowledge production techniques, methodology and interventions.

The journal welcomes high quality contributions to that are based on substantial theoretical or empirical engagement with the multidisciplinary field of science and technology studies, including contributions from anthropology, sociology, history, philosophy, political science, educational science and communication studies. S&TS is open access, published four times a year and available electronically at http://sciencetechnologystudies.journal.fi/.

Science & Technology Studies

Nordic Journal of Science and Technology Studies

Nordic Journal of Science and Technology Studies (NJSTS) is an open access academic journal published at the Norwegian University of Science and Technology. NJSTS is connected to the Nordic network of STS research, which connects researchers within the field from all Nordic countries. Contributions are themed towards the production, use and meaning of science and technology in contemporary society. As such the aim is that the articles deal with topics and phenomena relevant to current debates within these themes.

The journal will provide research, analysis and commentary from established themes in the Nordic STS communities, such as research on sustainable energy and climate change, information and communication technologies, gender studies, game studies, research on biotechnology and reproductive technologies, media studies, research on popular representations of science and the history of science and technology. In addition it seeks to be a stepping stone for new areas and topics in Nordic STS research and expertise, showcasing up-and-coming research and research communities.

The journal is separated into three sections: peer reviewed articles, book reviews and a miscellaneous section with dispatches, opinion pieces and other texts that are harder to classify. Submissions to any and all three subsections are welcomed. All articles are double-blind peer-reviewed, and we aim to give first feedback to articles no later than 8 weeks after submission. Please see further information about NJSTS at https://www.ntnu.no/ojs/index.php/njsts/index.

Special Issue of Science & Technology Studies

ADVANCING UNDERSTANDING ABOUT THE RELATIONSHIP BETWEEN SCIENCE, UNIVERSITY, AND SOCIETY

GUEST EDITORS: JUHA TUUNAINEN AND KARI KANTASALMI

This special issue of Science & Technology Studies is based on the session, which was organized at the International Sociological Association's (ISA) XVIII World Congress of Sociology held on 13-19 July, 2014, in Yokohama, Japan. In addition to those authors whose papers were accepted for presentation in the conference, the call for papers for the special issue was extended to other scholars working in the broad field of science and technology studies.

The background of the special issue is in the radical transformations in the ways of understanding the relationship between university and society during the 20th century. In science studies, the transformation of university research was discussed in terms of changing norms of science and altering contract between science and society. In research policy and higher education research, the societal role of university was redefined in terms of academic capitalism, entrepreneurial university and Mode-two knowledge production. In science communication, risks and ethical problems created by technoscientific developments sprouted resulting in the transformation of public understanding of science into a more interactive construct of public engagement in science. In this context, the special issue set as its goals to increase our knowledge about the societal impact of science by addressing the diversity of forms of interaction between university and society. It thus strives for improving our understanding of the various ways in which epistemic and social motives are being intertwined in university activities. Finally, it seeks to contribute to the understanding of the democracy of science by scrutinizing the ways in which societal stakeholders influence, and are influenced by, university practices in different areas of society.

Within this broad context of discussion, the following contributions are included in the special issue:

- Juha Tuunainen and Kari Kantasalmi: Advancing understanding about the relationship between science, university, and society – An introduction
- Norma Möllers: The mundane politics of 'security research': Tailoring research problems
- Pia Vuolanto: The universities' transformation thesis revisited: A case study of the relationship between nursing science and society
- Manuela Fernández Pinto: To know or better not to: Agnotology and the social construction of ignorance in commercially driven research

The special issue is available in Science & Technology Studies website at http://sciencetechnologystudies.journal.fi/.



RC-23 'Sociology of Science and Technology' International Sociological Association (ISA)

CALL FOR PAPERS



Research Committee 23 will be hosting a wide variety of sessions covering the breadth and depth of contemporary scholarship in the sociology of science and technology including, but not limited to:

- Sessions on the parallels between technoscientific and social scientific knowledge production;
- Sessions on nanotechnology, digital technology, sustainability technology, and innovation;
- Sessions on scientometrics and science policy;
- Sessions on gender issues, colonialism and the north-south divide in STS

Submission Process and Relevant Dates

Abstracts must be submitted online by **September 30, 2017, 24:00 GMT**.

A list of RC 23 session topics with links to session descriptions and the on-line submission system can be found at: https://isaconf.confex.com/isaconf/wc2018/webprogrampreliminary/Symposium460.html

An individual cannot submit more than two abstracts.

An individual cannot submit the same abstract to two different sessions.

The abstract text cannot contain more than 300 words and must be submitted in English, French or Spanish.

Notification of Acceptance: Submitters will be informed by **November 30, 2017**, whether their papers have been accepted for presentation.

Registration: In order to be included in the program, participants must pay registration fees by March 20, 2018.

Additional information is available at the Conference website and from the RC23 Co-Program Coordinators:

Nadia Asheulova, Institute for the History of Science and Technology, Russian Academy of Sciences, Russia, asheulova_n@bk.ru

Gary Bowden, University of New Brunswick, Canada, glb@unb.ca

CONFERENCE ANNOUNCEMENTS

The XIX ISA World Congress of Sociology, "Power, Violence and Justice: Reflection, Responses and Responsibilities", Toronto, July 2018

Since the inception of the discipline, sociologists have been concerned with power, violence and justice. Current social, economic and political challenges enhance their relevance. As capitalist globalization expands and deepens, corporate power increases along with global, national and local inequalities. New geopolitical power configurations and confrontations are emerging, with violence being used as a tool to oppress and also to resist oppression. Colonial histories and contemporary land appropriations reflect the structures and cultural processes that perpetuate violence against indigenous and minority communities. States' failures to meet their responsibility to provide basic resources are often deflected by blaming the most vulnerable. Both global economic and geo-political processes create crises and massive displacements of people and, at the same time, fuel racism, nationalism and xenophobia. We have also seen an increasing build-up of a culture of fear as a powerful tool used by states, corporations and other institutions to generate popular support for curtailing freedom in the name of security. Efforts to curtail the flow of desperate refugees, attest to the reinforcement of national and racialized borders. Despite visible progress on equality issues, violence against women and intersectional violence point to the entrenchment of the gender border around the world. Equally significant is the need to consider the role of state and institutional power relations to ongoing everyday violence. In response to disempowerment, violence, and injustice we have also witnessed nonviolent movements, humanitarian interventions, and peace processes that have empowered communities, reduced violence, and promoted justice. These diverse communities have built solidarities outside the neo-liberal frames of state-global capital nexus.

This XIX ISA World Congress of Sociology will focus on how scholars, public intellectuals, policy makers, journalists and activists from diverse fields can and do contribute to our understanding of power, violence and justice.

Paper submission:

On-line submission of abstract will be open from the 25th of April – 30 September, 2017. Only abstracts submitted on-line will be considered in the selection process.

RC23 Interim Workshop, St. Petersburg, Russia, September 18-19, 2017

ISA RC23 is holding an Interim Workshop in September 2017 in Saint Petersburg, Russia. The workshop, while interested in papers covering the entire spectrum of topics related to science policy, is particularly focused on papers dealing with issues related to the governance of science; the role of science policy in the facilitation of innovation

and excellence; the role of science policy in creating and eliminating barriers to global cooperation and the international mobility of scientists; and the implications of neoliberal reforms on academia, particularly as they relate to new forms of association between industry and academia and the governance of the "entrepreneurial university".

Potential topics include, but are not limited to, the following:

the governance of science and science policy;

scientific knowledge production;

new forms of public management and the entrepreneurial university/academy; mechanisms to identify and facilitate new types of "excellent" researchers;

strategies for defining and measuring excellence;

strategies for encouraging excellence and innovation;

the impact of inequalities among researchers and organizations;

the research climate of scientific organizations;

recruitment policy and the selection of scientists;

academic career development;

the academic job market;

the dynamics of research collaboration and scientific networks;

factors affecting the international mobility of scientists; and

mechanisms of reproducing the scientific elite and facilitating academic leadership.

In addition to providing researchers with an opportunity to present their latest findings, the interim workshop provides additional opportunities for network development and dissemination of ideas through coordination with the XXXIII Session of the Kugel International School for Sociology of Science and Technology and the opportunity for publication in the Special Issue of Sociology of Science and Technology.

Deadlines:

11 April 2017 – An abstract of 500 words or less must be submitted by e-mail to the Chair of the Workshop Organizing Committee, Nadia Asheulova (asheulovana@gmail.com). The abstract should include contact information (name, institutional affiliation, mailing address, and e-mail address) and provide an outline of the paper (including methodology and the expected contribution of the paper).

30 April 2017 – Decisions about acceptance will be communicated to authors.

1 September 2017 – All participants are expected to send their full papers (maximum length of 10.000 words).

Selected papers will be published in Special Issue of the Sociology of Science and Technology Journal (SST, Issue 4, 2017). For further information about the workshop, please visit the RC23 website.

Technologies of Frankenstein March 7-9, 2018, Stevens Institute of Technology, Hoboken, NJ, USA

Deadline: October 19, 2017

http://frankenstein2018.org/

The 200th anniversary year of the first edition of Mary Shelley's Frankenstein: Or, The Modern Prometheus has drawn worldwide interest in revisiting the novel's themes. What were those themes and what is their value to us in the early twenty-first century? Mary Shelley was rather vague as to how Victor, a young medical student, managed to reanimate a person cobbled together from parts of corpses. Partly as a result of this technical gap, and partly as a result of many other features of the novel, Frankenstein continues to inspire discourse in scholarly, popular, and creative culture about the Monstrous, the Outsider, the Other, and scientific ethics. This conference will examine such connections in our thinking about humanism and techno-science from the novel's publication to the present. We construe broadly the intersecting themes of humanism, technology, and science and we welcome proposals from all fields of study for presentations that add a twenty-first century perspective to Frankenstein.

Topic areas may include but are not limited to:

Artificial Intelligence and Robotics;

Branding "Frankenstein" (Food, Comics, Gaming, Music, Theater, Film);

Computational and Naval Technology (Mapping, Navigation, The Idea of the Journey);

Digital Humanities and GeoHumanities (Applications, Pedagogy, Library/Information Technology);

Engineering Technologies: Past/Present/Future (Chemical, Electrical, Biomedical);

Future Technologies and Labor Concerns.

Submit abstracts of 300 words and brief CV by 15 October 2017 to Michael Geselowitz (mgeselowitz@ieee.org) and Robin Hammerman (rhammerm@stevens.edu).

PUBLICATION OPPORTUNITIES

Science Studies and the Blue Humanities

Deadline: February 1, 2018

Configurations, the journal of SLSA (The Society for Literature, Science, and the Arts) is seeking submissions for a special issue on Science Studies and the Blue Humanities, edited by Stacy Alaimo.

We are interested in essays, position papers, provocations, and artist statements that explore the significance of science studies for the development of the blue humanities. As oceans and bodies of fresh water increasingly become sites for environmentally-oriented arts and humanities scholarship, how can the emerging blue humanities best engage with the theories, questions, paradigms, and methods of science studies? How do questions of scale, temporality, materiality, and mediation emerge in aquatic zones and modes? How can literature, art, data visualization, and digital media best respond to the rapidly developing sciences of ocean acidification and climate change as well as the less publicized concerns such as the effect of military sonar on cetaceans? Work on postcolonial/decolonial science studies, Traditional Ecological Knowledge (TEK), indigenous sciences, and citizen science especially welcome.

Please submit 5,000-7,000 word essays; 3,000 word position papers or provocations; or 2,000 word artist statements (with one or two illustrations or a link to a digital work); to Stacy Alaimo, alaimo@uta.edu, by February 1, 2018, for consideration. All essays will be peer-reviewed, following the standard editorial procedures of Configurations.

Digitalized Industries: Between Domination and Emancipation

Deadline: September 10, 2017

Expression of interest for a volume edited by David Seibt

The book will critically explore the contingent political effects of the current wave of digitalization in industries and raise the question of their potential for social emancipation. It brings together different perspectives on the debate along four of its most prevalent topics: organization, work, design and the body.

We welcome empirical, historical, as well as theoretical analysis that situates industrial production in a larger social context.

The deadline for the abstracts is 10th of September 2017, maximum length is 500 words.



Technology Assessment in Japan and Europe

by Antonio Moniz and Kumi Okuwada VerlagKIT Scientific Publishing, Karlsruhe, 2017 (ISBN: 9783731504290)

The goal of technology assessment (TA) is to lend support to society and policy making by promoting understanding of the problems related to the grand sociotechnical challenges of our time, as well as to assess the available options for managing them. Researchers from Japan and Europe reflected together in this book on country-specific developments to identify the conditions that must be present to anchor TA in science, politics, and society. This book helps us to learn about different cultures.

The book is freely downloadable at RC23 website.

Intercultural Communication and Science and Technology Studies

Editors: Luis Reyes-Galindo and Tiago Ribeiro Duarte Springer, 2017 ISBN: 978-3-319-58364-8 (Print) 978-3-319-58365-5 (Online) https://link.springer.com/book/10.1007/978-3-319-58365-5

This timely and engaging book addresses communicative issues that arise when science and technology travel across socio-cultural boundaries. The authors discuss interactions between different scientific communities; scientists and policy-makers; science and the public; scientists and artists; and other situations where science clashes with other socio-cultural domains. The volume includes theoretical proposals of how to deal with intercultural communication related to science and technology, as well as rich case studies that illustrate the challenges and strategies deployed in these situations. Individual studies explore Europe, Latin America, and Africa, thus including diverse Global North and South contexts.

OFFICERS

President:

Nadia ASHEULOVA, Institute for History of Science and Technology, RAS, Russia

Vice President:

Alice ABREU, Federal University of Rio de Janeiro, Brazil

Secretary:

Gary BOWDEN, University of New Brunswick, Canada

Board:

Matthias GROSS, Helmholtz Center for Environmental Research, Germany Jaime JIMÉNEZ, IIMAS, Universidad Nacional Autónoma de México, México Miwao MATSUMOTO, University of Tokyo, Japan Ralph MATTHEWS, University of British Columbia, Canada António MONIZ, Karlsruhe Institute of Technology, Germany Leandro RAIZER, Instituto Federal do Rio Grande do Sul, Brazil Czarina SALOMA-ALPENDONU, Ateneo de Manila University, Philippines Juha TUUNAINEN, University of Oulu, Finland

Newsletter Editors:

Nadia ASHEULOVA Juha TUUNAINEN Gary BOWDEN



RC23 NEWSLETTER

August, 2017