



# INTERNATIONAL SOCIOLOGICAL ASSOCIATION

## NEWSLETTER of the Research Committee 23: SOCIOLOGY OF SCIENCE AND TECHNOLOGY

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## **Board 2006-2010 of the Research Committee 23**

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## EDITOR'S NOTE

Dear friends,

### **Are we ready for the ISA Barcelona Forum 2008?**

Remember I offered to hold an interim RC23 meeting in 2008, in Barcelona? This is gradually taking shape within the bounds of the ISA Forum that Arturo Rodríguez Morató, the new Vice-President for Research, has launched. It was by sheer chance we coincided in the venue and it comes as a great relief to our committee since the administrative part of the meeting is in the hands of ISA officials.

The Forum has raised a lot of expectancy, partially for its novelty (this is the first Forum organized by ISA) and partially for the attractiveness of the city of Barcelona. Elsewhere in the NEWSLETTER you will find the preliminary Programme of our own Forum whose main theme is: **The role of science, technology and innovation in the construction of the world of the future**. Special interest has been put in realizing joint sessions that will attract the attention of more colleagues. So far, the following RC's are teaming up with us in the organization of sessions and panels:

- RC04: Education.
- RC07: Futures Research.
- RC13: Leisure.
- RC32: Women.

Barcelona 2008 is less than a year from now! Take your provisions to meet with our colleagues and interchange ideas on the subject matters of our interest.

### **Web page vs. NEWSLETTER**

The current ISA regulation is that you will receive financial support as long as you edit one Newsletter per year, either as a hard copy, or as a downloadable Internet document. We have put more emphasis in keeping the information of our RC updated in the web page, managed by our Secretary, Czarina Saloma, since it is more dynamical and easy to actualize. We did not get the ISA support this year because we had not edited a NEWSLETTER this and the past year. Therefore, as long as this policy remains, we will continue producing the NEWSLETTER regularly.

### **Durban 2006**

The XVI ISA World Congress of Sociology held in Durban, South Africa 23-29 July, 2006, under the title: **The Quality of Social Existence in a Globalising World**, was a great success. This was the first time the Congress took place in an African country and some reservations were raised during the organization, because of the existence of criminal gangs that assault passersby in the city of Durban. Fortunately only one

incident of that nature took place, and the colleagues involved did not suffer but minor bruises.

RC23 held 14 sessions, six of them in conjunction with other RC's. "Women in S&T" and "The future of S&T" were of particular interest to participants. All of our sessions had a good attendance of about 40-50 participants.

Sincerely,

Jaime Jiménez  
RC23 President

## ARTICLE

## THE SECOND REALITY: TYPICAL PROBLEMS OF NORTHERN TECHNOLOGY TRANSFER EXPERTS IN THE ENVIRONMENTAL SECTOR IN BRAZIL

Vera Rodrigues<sup>\*</sup>, Gerd Paul<sup>\*\*</sup> and Reigota Marcos<sup>\*\*\*</sup>

*The supremacy of a group or of a nation-state, can be manifested in two ways: as 'domination' and as 'moral and intellectual leadership'.  
Giovanni Arrighi*

We would like to refer to the constant flow of expertise from Northern agencies to environment related projects in Brazil. The interaction between the “international” and the local Brazilian environmental community has at least 3 fields of mutual understanding/misunderstanding: a) the local environmental challenges and pragmatic project driven answers; b) project implementation and management; c) project evaluation and the assessment of criteria for successful outcomes. The experts for forests and coastal management, for waste and sewage, the legions of short term project evaluators etc. often come to Brazil with the notion of the underdeveloped, primitive local project worker and their exotic customs and habits. It is typical that those projects are negotiated in the Capital Brasilia and are generally implemented in other regions of the country. In other words: the agendas are often previously established. The role of the locals is to implement projects which do not necessarily serve their needs.

The cultural patterns, role expectations and prejudice of both parties (the strangers and the locals) are a serious obstacle for cooperation per se. Many experts tend to have contact only with knowledgeable people who have studied, speak their language and know the language of the international development bureaucracy well. This reduces uncertainty for both parties and constitutes a *second reality*. It raises the question of “translated realities”, the cultural configuration of professional knowledge and the ways of finding a base for mutual learning and cooperation. We hold that the constitution of the *second reality* is more critical to the projects success than any well prepared cultural training for the experts. Our findings are based on interviews with scientists and project managers in Germany and Brazil.

### 1. North-South Knowledge transfer

At first glance the North-South knowledge transfer in development aid programs is different from scientific co operations, which refer to universal knowledge, “the state of the art” of the scientific field and to professional standards and procedures of academia. Ideally, in the academic science system dominates the search for collective

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knowledge production, organised scepticism, peer review, innovation and scientific self-regulation, free from practical purposes and material rewards (Merton, 1985). Conversely, in applied science we find demand orientated research, mostly using already known solutions, and we have particular purposes for specific users and their needs. As a consequence, the development of products and solutions in applied research is determined by social, political and economic considerations and interests. Knowledge transfer in environmental development programs in applied science is directed to the (supposed) needs of the Southern country concerning pollution management, cleaner technology and products and resource management (OECD, Eurostat 1999, 12). In this case, the direction of the flow of knowledge from the knowledge intensive of the North to the “low knowledge invested South” seems to be clear whereas in academic cooperation relations between equals are still regarded as working base. This, of course, is a very idealistic assumption. The Mathew effect (Merton, 1985) privileges the Northerners.

Transfer knowledge is per se difficult to apply and to manage, not only because of the underlying national differences in scientific traditions, cultures and models but also because scientific concepts from the North are broken down to practical solutions of “appropriate technology” for the specific need of the Southern countries. Who defines what these countries and their population need, are these specific solutions affordable for many people and do they fit into the culture and habits of the target group, let us say the poor peasant in one of the Southern countries?

One of the most common justifications for a massive use of technology in development projects is that they are the main element to address communities’ problems. These are frequently far beyond any technological solution and need different approaches. This is not a new discussion, but the conflicts about the use for the receivers of technology and knowledge systems emerge in a variety of forums, showing that the issue has to be deeper evaluated.

These issues of imbalances, also based on the over-consumption of natural resources from some countries, mainly in the North, related to the concentration of wealth and its unfair distribution, are present in every cooperation agreement and project funding. It is curious how terms as “poverty alleviation”, “empowerment”, “ownership”, “participatory approach”, among others - present in all contracts and reports – have different meanings to diverse social actors and become clichés, with few practical consequences. It is also remarkable that “poverty alleviation” is rarely related to “wealth reduction”, as if both were not interdependent.

In spite of the popularity of the concept of sustainable development from the Brundtland report, published in “Our Common Future”<sup>1</sup>, there is a wide range of conceptual divergences about the meaning of sustainability and a gap between theoretical discussions and practices. Brazilians environmental educators, for instance, often state that

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<sup>1</sup> The World Commission on Environment and Development. *Our Common Future*. Oxford: Oxford University Press, 1987.

they are not too interested in a sustainable development of the “untouchable rain forest” with people starving in it. For many of them, the key point of the sustainability concept seems to be, as Souza (2000:63) underlines, in a line of argumentation which justifies an economical system that is already structurally contradictory to sustainability. Environmentalists have to face a tough and concrete game of colossal interests that aim to keep economical systems unchanged. In Souza’s words: *it’s easy to applaud words, but the correspondent actions are difficult to be accepted*. Souza reminds that countries from the so called “Third World” started to see in this concept a perverse game from rich countries, which have grown at the expense of environmental destruction. In other words: *do what I say, because I’m rich and powerful, but don’t do what I did to be rich and powerful*. (Idem, p. 63, 64).

Another important issue is well approached by Reigota (1999: 20). According to the author, *“dependency on the North is not only restricted to funds and cooperation agreements, but lies in what is most important and less evaluated: a whole political, cultural, economical and ecological conception that privileges the continuity of supremacy from countries of the North”*. However, Reigota notes that more ecologists from the South find reputation and voice in international debates on the North-South relations. They represent an independent perspective, being at the same time internationalists and global.

## **2. General problems with environmental projects**

Whenever it comes to environmental concerns the field is open for divergent interpretations of the problem and its solution. This is partly due to blurred lead concepts like “sustainability” (or “nature conservation”), which have a normative bias. In spite of generally accepted working definitions of what the concept of sustainability comprises, like the widely used one of the Brundtland Commission, different interpretations come up when social and political implications are at stake.

In many countries, including Brazil, one of the main environmental and social issues is still the access of great part of the population to clean water and sanitation. The urban question of access is not in the focus of environmental projects when it comes to international funding, mostly directed to the popular issue of rain forest conservation. They seem to neglect the fact that great part of the population and their serious environmental problems are concentrated in urban areas, particularly metropolises. Ribeiro (2003: 20) indicates that the evident processes of deterioration of social and environmental relations, in the cities, have its roots in the model of urban development, which in Brazil, has imported from the so called developed countries a cultural productive pattern, resulting in the concentration of power, income and richness. This context raises a vital question: what kind of “sustainable development” is needed to countries such as Brazil?

## **3. Structural obstacles to international programs**

Programs which have the funding of international donors have many similarities. They consist of projects, which have loosely defined general goals (construct the countries

infrastructure, support PMEs, conserve nature etc.). These are specified and broken down to work packages and tasks. Projects are under technical and financial control of experts of the donors' country, who are professional project managers.

This ideal picture has of course many shadows and stains. Poor performance, wasteful spending and deviation of resources, scarce results are not just rare deviations from a well running normality, due to personal faults of project workers or of harmfully interfering local governments. There are structural obstacles which derive from the nature of these projects. They often have no balance between high administrative complexity and low performance and quality management. A main problem is that the implicit consent on the projects purposes is fed by fictional elements which make it very difficult to assess proper results or to define the projects success: 1) a fiction of control, 2) a fiction of cooperation and serving the countries needs and 3) a fiction of understanding.

*Note: a first version of this paper was presented at the XVI ISA World Congress of Sociology. Durban, 2006.*

**REPORTS**

**MINUTES OF THE RC23: SOCIOLOGY OF SCIENCE  
AND TECHNOLOGY BUSINESS MEETING**

**XVI WORLD CONGRESS OF SOCIOLOGY  
INTERNATIONAL CONVENTION CENTRE,  
DURBAN, SOUTH AFRICA, 25 JULY 2006**

Minutes taken by Czarina Saloma and Jaime Jiménez

1. Nomination of chair.

The President proposed Ralph Matthews, Secretary of RC23 as chair of this meeting. It was accepted by the members present.

2. Role call.

Nine members of RC23 were present in this meeting. Four additional colleagues interested in our Committee affairs also attended the gathering.

3. Introductory words by the President Jaime Jiménez.

The President welcomed the attendants and thanked them for their interest in the works of RC23. He also expressed an special effort was made to have as many joint sessions as possible, given that they appeal to more scholars and the themes become very attractive not only for the RC23 members but also to colleagues of other research committees. This time we have almost the same number of single and joint sessions: eight single and six joint sessions, in addition to the business meeting.

4. Report by the President.

The President gave a detailed report of his term 2002 – 2006. Kindly find the full report in our web page at <http://www.dsa-ateneo.net/rc23/>.

Of particular interest is the fact that four joint sessions took place during this period in Asia, North America and Latin America. The number of RC23 full members rose to over 90, representing 33 countries of the five continents. Issues 2, 3 and 4 of the NEWSLETTER were published by the President during this period, both in hard and soft version. Two interim sessions were held: one in Latin America and one in Europe. The Board has a good distribution of nationalities: México, Czech Republic, Canada, Finland, Sweden, Venezuela, Australia, India, the Netherlands, and the Philippines.

In terms of finances there is a negative balance of 162.39 US dls in the account of the President, and a positive balance of 135.79 US dls in the account of the Secretary

Ralph Matthews. This sum has to be passed on to the new elected Secretary. See the report of the President for details.

5. Election of the Board members: President, Vice-President, Secretary, period 2006 – 2010.

President.

The current President, Jaime Jiménez, presented his candidacy to all members by e-mail since April, 2006. Several members sent their votes in favor of Jaime's candidacy by the same means. The audience agreed to elect Jaime Jiménez for the period 2006 – 2010, acknowledging his dedication and hard work for the enhancement of our RC.

Vice – President.

Karel Mueller, the current Vice President, and Jaime Jiménez proposed Jochen Glasser for the Vice Presidency. Jochen was designated Vice-President unanimously by the audience.

Secretary/Treasurer.

Jaime Jiménez nominated Czarina Saloma as Secretary by e-mail and confirmed her nomination during this meeting. She has been very active in the organization of a joint session in Malaysia and took charge of our web page since May 2005. Czarina was elected unanimously by the RC23 members present.

6. Election of seven Board members.

Karel Mueller, the current Vice-President, did not show interest in continuing in the Board.

Ralph Matthews, the current Secretary, expressed his wish not to continue as Secretary but remain in the Board.

Marja Häyrynen-Alestalo and Aant Elzinga expressed their wish not to continue in the Board.

Maarten A. Mentzel and Hebe Vessuri expressed their interest in continuing in the Board.

Binay K. Pattnaik expressed to Jaime Jiménez his desire not to continue in the Board.

There were five candidates who sent their candidacy prior to this meeting:

- Laura Cruz-Castro, Spain,
- Paulo Martins, Brazil,
- Torin Monahan, USA,
- Juha Tuunainen, Finland,

- Lech Zacher, Poland.

In addition, the candidacy of Ana Maria Fernandes from Brazil and Duvuru Jayalakshmi from India were presented on the floor. Ana Maria, who attended the meeting, declined. Duvuru did not attend the meeting, therefore it was not known whether she was accepting her nomination.

The candidates were voted by the members present. The resulting new Board members are the following:

- Laura Cruz-Castro, Spain,
- Paulo Martins, Brazil,
- Torin Monahan, USA,
- Juha Tuunainen, Finland,
- Duvuru Jayalakshmi, India.

The absent candidates will have to be asked whether they wish to be part of the Board. Since from the previous Board three members wished to remain, and our Statutes rule only seven, we have one member too many.

#### 7. General matters.

No general matters were put on the floor and the meeting was adjourned.

**THE XXII SESSION OF THE INTERNATIONAL SCHOOL  
OF SCIENCE & TECHNOLOGY SOCIOLOGY  
ST. PETERSBURG, RUSSIA, OCTOBER 23<sup>RD</sup>-25<sup>TH</sup>, 2006**

**“THE IMAGE OF SCIENTIST IN THE MASS CONSCIOUSNESS:  
HISTORY PARADOXES AND NEW ALTERNATIVES”**

N.A. Asheulova and K.S. Erokhina

**The organizers:**

Institute of the History of Sciences and Technology, Russian Academy of Science; St. Petersburg Branch; St. Petersburg Scientific Center, Russian Academy of Science; Institute for sociology, Russian Academy of Science; Department of Sociology, St. Petersburg State University; St. Petersburg Polytechnical State University; St. Petersburg State University of Economics and Finance; Russian Academy of Science, St. Petersburg Scientific Center, Scientific Council for Science Studies and Research Management.

On October 23<sup>rd</sup>-25<sup>th</sup>, 2006 a regular XXII autumn session of the International school of science & technology sociology devoted to “The image of a scientist in the mass consciousness: history paradoxes and new alternatives” took place in St. Petersburg”.

**A Historical Reference**

St. Petersburg may be rightly called the centre of sociology in this country. Scientists, who started the formation and institutionalization of this scientific school, first of all I.A. Maisel and S.A. Kugel, are still working in “the capital of the sociology of science”. In 1992 in St. Petersburg an International school of science & technology sociology was organized, with its materials issued regularly. It became a new form of teaching sociology of science. The school has made significant changes in the whole field of the sociology of science: first, permanent contacts with the leading foreign sociologists – the vanguard of the sociology of science; second, widespread public familiarization with the work of the school; third, and perhaps the most important – attracting Russian young people to the sociological and science-studies discussions.

During these 14 years the conception of the school and its subject structure has been worked out. The conception of the school consists in teaching by means of research. How is it carried out? The first principle is “one teacher – one lecture”. Professors give lectures on the themes, on which they have made great contributions to the world science. The second is participation of students in the research. The subject-structure is the following: first of all, sociology of science is taught, including its internal and external aspect. Then additional courses of lectures are given: economics and psychology of science, sociology of deviant behaviour, etc. Each session has its thematic title at that. It is not just sociology of science. One of the sessions, for example, was devoted to “Science in the network of social institutions under crisis”, another – to

“Self-organization of science in conditions of social changes: traditions and innovations”, etc. In the recent years the themes of the sessions mostly concerned the following problems: «Science, technology and education in Russia in conditions of globalization and transformation of social life», «Science, technology and society: social aspects of interaction at the turn of centuries», «The role of scientific foundations in the internationalization of science. Mobility of scientists». Such wide coverage of themes makes for the stable interest of students towards the activity of the school. The materials of each school session are published in the annual collective volume “Problems of a scientist’s and scientific groups activity” (22 issues), which includes the articles not only by the teachers, but by the students as well.

The international school for the sociology of science and technology is the only scientific-educational organization for the sociology of science in Russia, which is meant for providing supplementary education in the field of the sociology of science, sociology of technology, scientific and technological policy, and sociology of higher education.

The school introduces students to the latest achievements in the sphere of the sociology of science, and also provides the raising of the level of skills of specialists, researchers and higher school teachers in the sphere of sociology of science and technology, scientific and technological policy and sociology of higher school.

The main achievement of the school is a steady main body of specialists. A permanent chief of the school during all the years of its existence has been one of the leading researchers of St. Petersburg branch of the Institute for the history of science and technology, Professor, doctor of philosophy, honoured worker of science of the Russian Federation Samuil Aronovich Kugel. The deputy chief is Asheulova N.A. (doctor of sociology), the methodologist – Erokhina K.S.

The school is known in many countries of the world, prominent foreign scientists take part in its work as teachers – director of the institute of sociology of the Hungarian Academy of sciences Prof. P. Tamash, prof. Yu. Raikovich (Yugoslavia), Prof. Ya. Rabkin (Canada), Prof. Linda Lubrano (USA), and the leading scientists of the Academy and university professors of Russia (from St. Petersburg, Moscow, Orel, Novgorod Veliky, Voronezh, Krasnoyarsk, etc.).

Long-term activities of the International school for the sociology of science and technology have shown that it is a viable organism. Dozens of researchers (sociologists, specialists in the science studies, economists, biologists, mathematicians, physicists) and students are interested in its work. The school is the only educational institution in Russia which is giving a unique possibility to unite “at the same school desk” a student and a professor, fundamental science and empirical sociological research. The organizers, the teachers, the students see good prospects of their work and understand its importance.

## **General characteristics of the XXII session and its peculiarities**

In the present-day Russia the prestige of science and scientists has divided into two different things: scientists are respected less, than science itself. People do not realize that it is scientists, who “make” science. Today it is hard to find scientists in the world, who get less salary, than Russian. Even if the salary is doubled, the doctor of science will not reach the level of a courier. But all these reflect common and journalistic views. In science itself the idea to come to the economics of knowledge is getting more and more popular. The fall of scientists’ prestige in the society is an obstacle in the way of the economics of science formation. It is necessary to restore a positive image of a scientist in public opinion and in the scientific community itself.

The necessity to hold this session was due to several circumstances. First, peculiarities of social and economical transformations taking place in this country. Second, obvious changes in the structure and organization of scientific activity in Russia. Third, the need to comprehend the interconnection of these processes by means of sociological and science-studies analysis. Exactly these purposes formed the basis in working out the program for the XXII session.

Practically all the specialists working in this field came to the session. The leading scientists of the Academy institutions and professors of the Russian institutes of higher education, as well as prominent foreign researchers – president of the 23 Research committee of the International sociological association Prof. Jaime Jimenez (Mexico), researcher Rui Pedro Brito Fonseca (Portugal), Prof. Lech W. Zacher (Poland), Prof. M. Rzadkowska (Poland) – took part in the work of the session. Representatives of the political elite also participated in the school work, which became a tradition. On the whole 51 specialists delivered lectures within the bounds of the school and more than 300 took part as students.

The work of the XXII session included the following directions:

1. Methodology, principles and procedures of studying the image of a scientist in the mass consciousness.
2. The rise of the profession of a scientist. Paradoxes of history.
3. Public opinion about science and public understanding of science under present conditions of globalization. The opinion of the population concerning the role of science in the Russian society.
4. The prestige of scientific activity. Public opinion about a profession and a career of a scientist. Alternatives.
5. Burning problems of training specialists for science. Bologna process and mobility of scientists in public opinion.
6. Ethical problems of science.

The first direction “Methodology, principles and procedures of studying the image of a scientist in the mass consciousness” included the analysis of initial theoretical statements of conceptions of “an image of a scientist reflected in the public opinion” (Prof.

I.A. Maisel “Science of science: scientists about themselves and about their work”), the consideration of new methods and procedures of studying an image of a scientist in the public opinion, research basis, methodology and principles of investigating public opinion about science.

Special attention was paid to the problem of sociological, bibliometrical, mathematical-statistical, historical-scientific methods of investigating public opinion about science. An experience of applying PR technologies in forming the image of science and scientists in the public opinion was specially considered. Along with the consideration of traditional methods of sociological research modern informational and computer technologies for raising the efficiency of gathering and analyzing sociological information, automation of general operations of processing the results of research, methodology of applying mathematical methods (Prof. R.I. Ivanovsky “Creating and using interactive MAS-resources as a stage of informatization sociological research”) were also considered. A well-known specialist on the sociological problems of science Prof. Jaime Jimenez (Mexico) made a report “Alternative ways of doing research in the Western World, vis-à-vis the current globalization of the economy”.

The second direction “The rise of the profession of a scientist. Paradoxes of history” presented at the session, focused on the following problems: the history of rise of science and a profession of a scientist (Prof. M.F. Khartanovich “The status of a scientist in Russia in the first half of the XIX century”), public opinion about a profession and a career of a scientist. Peculiarities of the profession of a scientist in different countries were analyzed, distinguishing characteristics and social conditions peculiar of different countries were singled out, public estimation of specialists working in the fields of technical, natural and social sciences was considered, as well as their specificity taking into account the researches carried out in Russia, Great Britain and USA. In his report titled “The role and social image of scientists in a forming society of knowledge” a Polish colleague Prof. Lech Zacher illustrated some specialties of estimation of science and scientific achievements by the society in the present-day Poland. A young specialist, doctor of sociology A.Yu. Lukyanov made a report “An image of a scientist in Russia and Denmark: stereotypes and reality”.

Problems connected with public opinion about science and public understanding of science under present-day conditions of globalization were considered in such themes as public opinion about the role of science in the life of the Russian society (the role of science and technology in raising the prestige of Russia, trust to science, the authority of science, social status of scientists in Russia, estimation of the level of Russian science, researches and innovations), public opinion about the consequences of science development: positive and negative consequences of the development of science for the society and for the mankind. A report “The image of science: theory and practice” provoked special interest of the audience. Its author, doctor of pedagogic E.A. Volodarskaya (Moscow) explained in her speech that the developing interrelations of contemporary science and society is an abyss dividing two banks of knowledge in its scientific and everyday forms. The world space of Internet was analyzed by doctor of botany A.E. Sedov (Moscow) in the context of studying the image

of biologists and chemists in the mass consciousness of the world Internet community. Rui Pedro Brito Fonseca (Portugal) presented the results of a large-scale research "Images of science and scientists in Portugal: Biology" carried out recently in his country. A report of one of the main specialists in these problems in Russia doctor of sociology O.R. Shuvalova (Moscow) also provoked much interest of the audience. In a joint work with Prof. L.M. Gohberg "An attempt of research of public understanding of science in Russia (1995-2003)" it was presented as a monitoring of research results of the Research and Statistics of Science Centre carried out in 1996, 1997, 1999, and 2003 in Russia.

The discussions of the fourth direction "The prestige of scientific activities. Public opinion about the profession and career of a scientist. Alternatives was presented in the following themes: the role of state in forming the relation of society towards science, the role of international association of scientists in raising the prestige of a scientist in the society, for example, Euroscience and IUPAP, ideology of contemporary science, the problems of poverty in the Russian science. Academician N.N. Nikolsky made an analysis of the attitude of Russian population to biology as a science. M. Rzadkowolska (Poland) estimated the profession of a librarian in mass-media.

The fifth direction "Burning problems of training specialists for science. Bologna process and mobility of scientists in public opinion. Concentrated on the problems of professional mobility of the young in science, the role of scientific foundations in supporting young researchers. The problems of scientific and technical policy concerning this question, in particular such aspects as philosophical, sociological, and methodological foundations of state scientific policy and cognitive and social-cultural factors of scientific policy were emphasized. Academician Yu. S. Vasiliev analyzed the problems of public estimation of the activity of higher school teachers. Professor N.A. Pruel gave a characteristic of national and institutional models of production and circulation of knowledge and their transformation. E.P. Evdokimova made in her report a deep analysis of students' problems today. A deputy of the State Duma doctor of philosophy P.B. Shelishch made a general review and outlined the perspectives of scientific policy in Russia and St. Petersburg.

Ethical problems of science turned to be in the centre of attention of the participants of this session. A special interest was provoked by the reports of academician S.G. Inge-Vechtomov "Scientific discoveries in the basis of ethics" and professor Ya.I. Gilinsky "The influence of total plagiatism in science on the society's attitude towards scientists". A Moscow colleague doctor of sociology A.V. Strelnikova made a report "Ethical problems in the academic society: when 'a situation' turns into 'rules'".

Active debates and a round-table discussion "Pseudo-science in the mass consciousness" coordinated by acad. E.B. Aleksandrov were a distinguishing feature of the session. A.Yu. Azbel made a report "Pseudo-science as a factor of discredit of science", A.Ya. Vinnikov spoke about "An image of scientist and pseudo-scientist in the soviet tradition and new Russian reality".

On the whole the contents of the session, with the sociology of science as its core, had an interdisciplinary character: not only sociological but economical, philosophical, psychological and historical aspects as well were considered. A proper selection of lecturers allowed carrying out this task.

The totals of the school were summed up by the head of the school professor S.A. Kugel. He observed that among the peculiarities of this school session there was active participation of the youth, joint work of young and honoured scientists, participation of international colleagues and a wide range of Russian specialists.

The next session of the school is to take place in the summer – autumn 2007 and will be additionally reported about.

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**REALIZACIÓN DEL PRIMER CONGRESO ARGENTINO  
DE ESTUDIOS SOCIALES DE LA CIENCIA Y LA TECNOLOGÍA  
Y CREACIÓN DE LA RED ESCYT  
BUENOS AIRES, ARGENTINA, JULIO 5-6, 2007**

Pablo Kreimer<sup>1</sup>

Abstract

On the 5<sup>th</sup> and 6<sup>th</sup> of July, 2007, the First Argentinean Congress on Social Studies of Science and Technology was held at the Universidad Nacional de Quilmes, in Argentina. This was a very particular occasion because it was the very first congress of its kind to be held at that University although it had hosted several Latin American events, similar in thematic focus, although smaller in scope. The Congress was very successful in that it had a larger than expected attendance, and although it was designed as a national event, it enjoyed participation (about 20%) from academics from different parts of the world, such as Brazil, Mexico, Uruguay, Colombia, Venezuela, Costa Rica, Spain and France. Its main thematic focuses were: Science and Technology Policy; Innovation; Power; Science, Technology and Social Utility; Information and Communication Technologies; History of Technologies; and Science and Technology Disciplines and Institutions. It included two topical round table discussions with prestigious academic panelists from Latin America. The topics of discussion were: "Of what use are the Social Studies of Science?", and "Local Technology for Development and Solution of Social Problems". During the closing ceremony, a new network was created, the Network for Social Studies on Science and Technology (ESCYT, in Spanish), which will be based at the website [www.escyt.com.ar](http://www.escyt.com.ar), and its main objectives are to enable exchange among different disciplines and focuses on the subject, to stimulate inter-institutional collaboration, and to facilitate the coming-together between research groups disseminated throughout the country with the aim of spawning additional networks among researchers and institutions.

English text by Juan C. Escalante  
IIMAS, UNAM

Durante los días 5 y 6 de julio de 2007 se realizó el Primer Congreso Argentino de Estudios Sociales de la Ciencia y la Tecnología, en la Universidad Nacional de Quilmas (UNQ).

El sentido de este Congreso es muy particular porque, a pesar de que en esa misma sede se habían organizado las Primeras Jornadas latinoamericanas de estudios sociales de la CyT en 1995 (ya se está organizando la 7ª), nunca se había organizado un evento semejante en la Argentina.

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El congreso fue co-organizado por el Instituto de Estudios sobre la Ciencia y la Tecnología (IEC-UNQ) y el Centro de Estudios de Historia de la Ciencia y la Técnica “José Babini” (CEJB-UNSAM), y contó con el financiamiento de diversas agencias nacionales: CONICET, ANPCYT, UNQ, CEI, UNSAM y con el apoyo de varias instituciones locales.

Tuvo una convocatoria que excedió las expectativas de los organizadores: se registraron más de 280 participantes, con un porcentaje importante de participantes extranjeros (20%) de Brasil, México, Uruguay, Colombia, Venezuela, Costa Rica, España, Francia y un gran número de participantes de universidades del país.

Algunas de las temáticas abordadas fueron: Políticas de ciencia y tecnología; Innovación; Poder; Ciencia, tecnología y utilidad social; Tecnologías de información y comunicación; Historias de tecnologías; Disciplinas e instituciones de ciencia y tecnología.

Por otro lado, se organizaron dos mesas redondas temáticas cuyos panelistas fueron prestigiosos académicos especializados en el área, provenientes de Latinoamérica (Brasil, México y Argentina): Antonio Arellano, Carlos Abeledo, Renato Dagnino, Iván Da Costa Marques, Diego Hurtado, Pablo Kreimer, Andrés López, Ana María Ribeiro, Hernán Thomas, Leonardo Vaccarezza. Contaron con gran asistencia de público y dieron lugar a intensos debates entre los participantes. Los títulos fueron: “¿Para qué sirven los estudios sociales de la ciencia?” y “Tecnología local para el desarrollo y la resolución de problemas sociales”.

El desarrollo de este congreso hizo evidentes diferentes cosas:

- a) Que el campo de los estudios sociales de la ciencia, que era bastante incipiente hace una década y media, ha entrado en una etapa de mayor madurez, con una importante participación de investigadores y estudiantes de maestrías y doctorados;
- b) Que la calidad de los trabajos presentados y los debates que suscitan es cada vez mayor, lo cual habla también de más profesionalización del campo;
- c) Que los trabajos combinan preocupaciones teóricas propias de los contextos periféricos con fuertes trabajos empíricos, lo cual otorga solidez a las contribuciones;
- d) Una fuerte participación de estudiantes de maestrías y doctorados sobre el total de participantes. Esta es, posiblemente, la constatación más importante, en la medida en que permite pensar que el campo de los estudios sociales de la ciencia y la tecnología tendrá un mayor dinamismo en el futuro, cuando todos esos jóvenes se incorporen de lleno en el trabajo de producción académica.

### **Creación de la Red ESCYT**

Finalmente, durante la clausura del Congreso se creó la Red de Estudios Sociales de la Ciencia y la Tecnología (ESCYT), que funcionará a través del sitio web [www.escyt.com.ar](http://www.escyt.com.ar) creado para tal fin y cuyos objetivos fundamentales son:

1. posibilitar el intercambio entre diferentes disciplinas, enfoques y objetos de análisis vinculados con la problemática social de la ciencia y la tecnología,
2. estimular las actividades de cooperación en investigación, docencia y extensión entre integrantes de distintas instituciones académicas,
3. reflexionar acerca de la relevancia social de los temas de análisis predominantes en el campo,
4. posibilitar el encuentro entre grupos de investigación diseminados en el amplio espacio geográfico del país para la formación de redes de investigadores e institutos.

Tanto los investigadores presentes en el Congreso, como los representantes de diferentes instituciones argentinas y latinoamericanas se comprometieron a conformar esta red y vincularla a otras redes existentes, en particular con la Sociedad Latinoamericana de Estudios Sociales de la Ciencia y la Tecnología (ESOCITE) creada en el año 2006 en Bogotá. El nodo principal de la Red estará radicado en el Instituto de Estudios sobre la Ciencia y la Tecnología (IEC-UNQ).

**8<sup>TH</sup> CONFERENCE OF THE EUROPEAN SOCIOLOGICAL  
ASSOCIATION (ESA): CONFLICT, CITIZENSHIP AND CIVIL SOCIETY  
GLASGOW, SCOTLAND, 3<sup>RD</sup>–6<sup>TH</sup> SEPTEMBER, 2007**

Jaime Jiménez

The past 3<sup>rd</sup> to 6<sup>th</sup> of September 2007, the 8<sup>th</sup> ESA Conference took place in Glasgow, Scotland. More than two thousand academics attended the Conference, the highest number ever, according to the local committee. ESA is grouped in a similar manner as ISA: Research Networks (ISA's Research Committees), and Research Streams (ISA's Working Groups). RN 24: Science and Technology consisted of eight sessions, one dedicated to Ph D students, in which about 40 papers were presented.

Broad themes dominating the S&T branch of the Conference were:

- Public participation in S&T. How to involve the public? Innovation and public debate. Latin American countries reacting to main stream S&T trends. How to create an inclusive discipline in S&T studies.
- Energy policy and sustainable development. Corporations facing new trends of energy policy. Wind power controversies. Large power systems. Energy technology in three European countries. Vulnerability and sustainable development.
- Visions on nanotechnology. Science fiction and nanotechnology. Innovation and pervasive computing. The danger of autonomous machines.
- Research and moral issues in modern medicine. Medical modernization and bio-medical research. Medical innovation in genetic testing. Use of fetal cells. Contraception in marmots. Politics in vaccine innovation. Stem cell research and the public.
- Emerging concepts of modern science. What makes 'good' science? Key actors of science governance. Commodification of scientific knowledge. 'Trusting' scientists. Medical guidelines for trust.
- The meaning of knowledge. Contentious links between science, policy and law. Does mode 2 have a national variety component? The meaning of scientific knowledge in a Scandinavian country. Science and the new social contract.
- Others. Governance of hybrid systems. Paternity claims. Reflexibility patterns of innovation actors. Obsolete objects and material residues, and others.

The science of science community is lending much attention to the pros and cons of nanotechnology, anticipating great progress in the applications while expressing great concern of some unexpected social consequences and a deepening of the technological gap. Both directly or indirectly, colleagues are referring to some sort of Mode 2 of knowledge production, some having noticed that, contrary to the authors' claim, Mode 2 is not more socially accountable. Research was also reported on social issues in Medicine, notwithstanding the controversy of therapeutical use of stem cells.

S&T sessions had a very ample audience of 50-60 participants each. Several RC23 members presented papers in these and other sessions: Marja Alestalo, Karel Müller, Ralph Matthews, and the subscriber were among them. Our Barcelona 2008 Forum was widely publicized among the attending colleagues.

**ANNOUNCEMENT**

**FIRST ISA FORUM OF SOCIOLOGY  
5-8 SEPTEMBER 2008, BARCELONA, SPAIN**

**CALL FOR PAPERS**

**SESSIONS OF THE RC23 SOCIOLOGY OF SCIENCE AND TECHNOLOGY**

**THE ROLE OF SCIENCE, TECHNOLOGY AND INNOVATION  
IN THE CONSTRUCTION OF THE WORLD OF THE FUTURE**

**Organizers:** Jaime Jiménez (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, Universidad Nacional Autónoma de México, México) [jjimen@servidor.unam.mx](mailto:jjimen@servidor.unam.mx) and Czarina Saloma-Akpedonu (Department Sociology and Anthropology, Ateneo de Manila University, Philippines) [csaloma@ateneo.edu](mailto:csaloma@ateneo.edu).

As the world goes into the twenty-first century, it becomes apparent that the nations' economic advancement is based on the way they apply knowledge. It is clear that in terms of the global economy, those countries of advanced technology have a competitive advantage over the less developed ones. Since the end of the twentieth century, the idea that society as a whole was nearing a new era, the 'era of knowledge' became fashionable. But what is behind the recognition of a new global paradigm? The vertiginous scientific and technological development. The advancement in computing, information sciences, nanotechnologies, bio-medicine, genetics and other disciplines and transdisciplines, set the pace for the construction of a society that would not be understood without the contribution of the technological innovations achieved in recent decades.

RC23 seeks a dialogue among scholars to address the issues of science, technology and innovation (S, T & I), converging technologies; S, T & I in the Third World; S, T & I and gender; university research; and others in the hope of making a contribution to the understanding and guidance of S, T & I in the world. Please send paper proposals (between 200 and 500 words) by email by 30 November 2007, at the latest to either the chairpersons or organizers listed below and to the RC23 President, Jaime Jiménez, [jjimen@servidor.unam.mx](mailto:jjimen@servidor.unam.mx) and RC23 Secretary, Czarina Saloma [csaloma@ateneo.edu](mailto:csaloma@ateneo.edu). Papers of sessions without either a chair or organizer assigned may be sent directly to the RC23 President and Secretary.

**Session 1: Science, Technology, and Innovation in the Public Eye: Freedom or Restraint?**

**Chair:** Marja Häyrynen-Alestalo (Department of Sociology, University Helsinki, Finland) [marja.alestalo@helsinki.fi](mailto:marja.alestalo@helsinki.fi).

**Session 2: Science, Technology and Innovation for the Development of Third World Countries. Will the young ones join?**

**Chair:** Judith Zubieta (Instituto de Investigaciones Sociales, Universidad Nacional Autónoma de México, México) zubieta@servidor.unam.mx.

### **Session 3: Converging Science and Technologies and the Construction of the New World**

**Chair:** Paulo Roberto Martins (Instituto de Pesquisas Tecnológicas) marpaulo1@uol.com.br.

Nowadays we are living in a time of “Converging Technologies”. Information and communication technology, nanotechnology, cognitive science and biotechnology are in the center of our near future development. This “Converging Technologies” could be explained as a BANG Theory (ETC Group) that controls bits, atoms, neurons and genes. According to the little BANG theory, neurons will be reengineered so that our minds “talk” directly to computers or to artificial limbs; viruses can be engineered to act as machines or, potentially, as weapons; computer networks can be merged with biological networks to develop artificial intelligence or surveillance systems.

Alfred Nordmann (2004) reported that “The first major research initiative of the 21<sup>st</sup> century is the convergence of these enabling technologies. Info-, bio-, and nanotechnologies complement each other and have begun to join forces with cognitive science, social psychology and other social sciences. This convergence promises to transform every aspect of life.

1. Nanotechnology opens the door to engineering at the molecular level. For example, the molecules of a nerve-cell can be combined with those of an artificial sensor in order to restore vision in certain cases of blindness.
2. Another convergent technology might use biological substrates as in DNA chips for the diagnosis of personal or environmental health.
3. Social science research can guide ambient computing in such a way that human users will more quickly acquire information about the space and situations in which they move and act. Converging Technologies – Shaping the Future of European Societies, p.7.

### **Session 4: The Role of Industrialized Countries in the Development of the Rest of the World**

**Chair:** To be arranged

### **Session 5: Will the Mertonian Way of Doing Research Prevail?**

**Chair:** Juha Tuunainen (Institute Science Studies, Department Sociology, University Helsinki, Finland) juha.tuunainen@helsinki.fi.

In recent decades, universities have become complex organizations involving many kinds of activities. In addition to their conventional missions—academic research and higher education—universities have taken on a number of societal service functions, such as extension studies, open-university teaching and the commercialization of research results. While such assignments are by no means novel to universities in historical perspective, what is new in the current situation is the broad structural movement

towards a commingling of previously separate institutional fields of science, industry and government. As a result, a whole variety of new organizations and activities to enhance the societal utilization of academic research have been established, including university-industry cooperative research centers, technology transfer offices, industry-sponsored research projects and spin-off companies. Besides these formal arrangements, there have been subtle, indirect transformations within universities that have changed the daily practices of academics and made them isomorphic with those found in other societal settings. While this trend manifests that universities are indeed responding to the society's claim for social accountability it has also raised a profound question of whether or not the traditional Mertonian norms of science are, in fact, losing their guiding role. This session seeks to address this broad organizational and cultural change within academia. Are academics willing and able to sustain the traditional norms of science in the wake of external pressures for societal relevance and commercialization? Are the cultural imperatives of doing research becoming transformed into the rules of "post-academic" science, as suggested by some observers? In which fields these changes are taking place, if they are, after all? In this session, these and other questions related to the potentially changing normative structure of science are studied and discussed.

#### **Session 6: Science and Technology for Whom?**

**Chair:** Maarten Mentzel (Delft University of Technology, Netherlands)  
m.a.mentzel@tudelft.nl.

Worldwide, contemporary commercialisation and marketization in science raise questions of integrity: who will profit of scientific research?

#### **Session 7: Joint Session of RC07 (Futures), RC14 (Communication), and RC23: The New Information and communication Technologies: A Chance for Leap-frogging Development?**

**Chair:** RC23: Czarina Saloma-Akpedonu (Department Sociology and Anthropology, Ateneo de Manila University, Philippines) csaloma@ateneo.edu

**Organizers:** RC23: Czarina Czarina Saloma-Akpedonu (Department Sociology and Anthropology, Ateneo de Manila University, Philippines) csaloma@ateneo.edu, RC07 (Futures): Markus Schulz (Graduate School of Art & Science, New York University, USA) isarc07@gmail.com.

Information and Communications Technology (ICT) has been viewed as an increasingly powerful tool of economic growth and development. Countries, however, have different capacities for benefiting from these new technologies. This panel examines the implications of ICTs on so-called developing countries. How do ICTs promote participation in the global economy, improve local governance, address poverty, marginalization, and inequality, among others? Areas of inquiry would include, but not limited to, ICT4D, e-governance, and off-shore call center services.

#### **Session 8: Joint Session of RC07 (Futures), RC14 (Communication) and RC23: The Internet: From Utopia to Nightmare?**

**Organizers:** RC23: Jaime Jiménez (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, Universidad Nacional Autónoma de México, México) jjimen@servidor.unam.mx, RC14 (Communication): Hermilio Santos (Department Social Science, PUCRS, Brazil) hermilio@pucrs.br and RC07 (Futures): Markus Schulz (Graduate School of Art & Science, New York University, USA) isarc07@gmail.com.

**Session 9: Joint Session of RC07 (Futures), RC14 (Communication) and RC23: The \$100 Laptop: Creating a World of Addressable Consumers or Cosmopolitan Citizens?**

**Organizers:** RC23: Jaime Jiménez (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, Universidad Nacional Autónoma de México, México) jjimen@servidor.unam.mx, RC14 (Communication): Hermilio Santos (Department Social Science, PUCRS, Brazil) hermilio@pucrs.br and RC07 (Futures): Markus Schulz (Graduate School of Art & Science, New York University, USA) isarc07@gmail.com.

**Session 10: Joint Session of RC07 (Futures), RC14 (Communication) and RC23: Intellectual Copyright, Digital Inequality, and Global Hegemony.**

**Organizers:** RC23: Jaime Jiménez (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, Universidad Nacional Autónoma de México, México) jjimen@servidor.unam.mx, RC14 (Communication): Hermilio Santos (Department Social Science, PUCRS, Brazil) hermilio@pucrs.br and RC07 (Futures): Markus Schulz (Graduate School of Art & Science, New York University, USA) isarc07@gmail.com.

**Session 11: Joint session of RC14 (Communication), RC07 (Futures) and RC23, Las Nuevas Tecnologías de Información y Comunicación en el Mundo Latino: Perspectivas Sociológicas desde Europa y América Latina / The New Information and Communication Technologies in the Latin World: Sociological Perspectives from Europe and Latin America (Spanish Language Session).**

**Organizers:** RC14 (Communication): Hermilio Santos (Department Social Science, PUCRS, Brazil) hermilio@pucrs.br, RC07 (Futures): Markus Schulz (Graduate School of Art & Science, New York University, USA) isarc07@gmail.com and (RC23): Cristobal Torres (Departamento de Sociología, Universidad Autónoma de Madrid, Spain) cristobal.torres@uam.es.

**Session 12: Joint Session of RC07 (Futures), RC23, and RC32 (Women): Gender, Science, Technology, Innovation, and the Future.**

**Organizers:** RC32 (Women): Solange Simoes (Institute for Social Research University Michigan, USA) ssimoes@umich.edu and RC23: Radhamany Sooryamoorthy (Sociology Programm, University Natal, South Africa) sooryamoorthy@ukzn.ac.za.

**Session 13: Joint Session of RC04 (Education), RC07 (Futures) and RC23: The Role of University Research in the Future.**

**Organizers:** RC04 (Education): Kozma Tamás, kozmat@ella.hu, RC23: Radhamany Sooryamoorthy (Sociology Programm, University Natal, South Africa) sooryamoorthy@ukzn.ac.za and RC23: Jaime Jiménez (Instituto de Investigaciones en

Matemáticas Aplicadas y en Sistemas, Universidad Nacional Autónoma de México, México) jjimen@servidor.unam.mx.

**Session 14: Panel on Technological Surveillance and Power in Everyday Life.**

**Chair:** Torin Monahan (School of Justice & Social Inquiry, Arizona State University, USA) torin.monahan@asu.edu.

Technological surveillance has become a charged symbol of contemporary life. Broadly defined, surveillance systems are those that afford control of people through the identification, tracking, monitoring, and/or analysis of individuals, data, or systems. As with all technologies, surveillance functions in multiple ways to mediate and regulate interactions among people, organizations, and the built world. Surveillance technologies can be found in urban infrastructures, transportation systems, cell phones, identification documents, computer programs, frequent shopper cards, televisions, medical and consumer products, and much more. Whether mobilized by law enforcement, industry, or others, surveillance modulates experiences of the world. Rather than perceive surveillance systems as universal in their application or function, this panel seeks to identify the differential operations of power and control enabled by them. Through such inquiry, we hope to broaden collective understandings of the politics engendered by the design and deployment of surveillance devices.

**Session 15. Challenges and Changes in Universities and Public Research Organisations for the 21st Century: Evaluation, Research and Careers**

**Chair:** Laura Cruz-Castro (Unidad de Políticas Comparadas, CSIC, Spain) laura.cruz@iesam.csic.es

Papers are welcome on topics related to: the changing missions of universities and public research organizations (PRO) and how these changes affect the strategies of universities, research centres, or research groups' dynamics; the use of evaluation for steering research through funding and its effects on the governance of organisations and scientific communities; changing patterns of support of public research, and changes in the incentive structures of academics, status of workforces and careers; internationalisation dynamics in universities and PROs; knowledge users' involvement in steering public science; and IPR management and knowledge valorisation in public research.

**Session 16: Joint Panel of RC02 (Economy and Society), RC24 (Environment) and RC23 on the 'Knowledge-Based Bio-Economy': Critical Perspectives.**

**Chair:** Les Levidow (Development Policy and Practice, Faculty of Maths, Computing and Technology, The Open University, UK) l.levidow@open.ac.uk.

Critical perspectives have been developed by a recent report, *Taking European Knowledge Society Seriously*. The authors ask what knowledges are being privileged or marginalised by discourses of the 'Knowledge-Based Society'. Through master narratives, some possible futures are imaginable, while others are marginalised or excluded (Felt *et al.*, 2007).

Master narratives are illustrated especially by the 'Knowledge-Based Bio-Economy', the topic of a major conference (CEC, 2005). The KBBE concept pervades the Commission's Framework Programme 7, especially its thematic priority on 'Food, Agriculture, Fisheries and Biotechnology'. According to an OECD expert group, 'The bioeconomy is made possible by the recent surge in the scientific knowledge and technical competences that can be directed to harness biological processes for practical applications.' Potential benefits may be lost or delayed unless government decision-making procedures are adapted to those rapid advances, argue the group (OECD 2006).

Given current policies for the 'Knowledge-Based Bio-Economy', how can critical perspectives generate public debate, while linking diverse academic approaches and stakeholder groups? How can such debate open up possible futures? Taking up those questions, this Panel aims to involve various Research Committees of the ISA and ESA (e.g. Science and Technology, Environment, Risk, Economy, etc.). Talks will critically analyse assumptions of EU policy.

**Session 17: Joint Session of RC07 (Futures), RC13 (Leisure) and RC23: Leisure in the Age of Technological Transformation.**

**Organizer:** RC13 (Leisure): Ishwar Modi (Department Sociology, University Rajasthan, India) [iiiss2005modi@yahoo.co.in](mailto:iiiss2005modi@yahoo.co.in) and RC23: Jaime Jiménez (Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, Universidad Nacional Autónoma de México, México) [jjimen@servidor.unam.mx](mailto:jjimen@servidor.unam.mx).

We have always endeavoured to work towards meeting the challenges of natural environment, fulfillment of our needs and also to seek solutions to problems facing the societies. The ultimate emphasis of all human endeavours has been on achieving sustainable development and improving the quality of life and human existence. The fast paced advances in science and technology particularly after the Renaissance and the Industrial Revolution and more recently the revolutionary advances in IT and BT have resulted in drastically transforming the human condition and the nature of societies.

Scientific and technological progress has not been limited to the improvement of society's material wealth, but has also extended to altering the paradigms under which society operates. The fruits of science and technology fill every corner of our lives with accelerated economic growth, raised standards of living; improved human mobility in terms of both time and space, increased longevity and better quality of life as also the patterns of leisure and the leisure practices the world over. It is possible today to achieve almost anything through technological capabilities but it is also equally true that despite all its claims and glories more of science and technology has meant less of society. Scientific progress has changed not only the nature of society but also its values pushing the technologically illiterate to social disadvantage. The key to future progress lies in the realization of Science and Technology for Society and in Society. A question which has been debated earlier and is also being debated even today is: Whether advances in science and technology will lead to the emergence of a "Leisure Society"?

Such a situation is as much a matter of concern for the members of RC 13 as that of RC 23. The way recent scientific and technological developments have influenced the wider society is a matter of concern for the whole humanity. The objective of this joint session is to focus on the impact of these developments on the patterns of leisure and also simultaneously to understand that how the new emerging leisure practices are demanding more and more from these advancements in science and technology.

A selected number of papers of this joint session will be published in the volume on "Leisure and Social Transformation" (tentatively entitled) being planned to be brought out by the Research Committee on Sociology of Leisure (ISA RC13).

For Forum updates, please visit:

ISA website: [www.isa-sociology.org](http://www.isa-sociology.org)

RC23 website: [www.dsa-ateneo.net/rc23](http://www.dsa-ateneo.net/rc23)

Miwao Matsumoto, *Technology Gatekeepers for War and Peace: The British Ship Revolution and Japanese Industrialization* (Basingstoke: Palgrave Macmillan, 2006).

<http://www.palgrave-usa.com/catalog/product.aspx?isbn=1403936870>

The scientific and technological revolution in shipbuilding in the early twentieth century had a great impact on both the military and the industrial/commercial world. Miwao Matsumoto focuses on the relationship between this revolution and the structure and function of 'technology gatekeepers' during the emergence of the Japanese military-industrial-university complex through technology transfer from Britain. His analysis is undertaken in light of a new 'composite model' of industrialization, which reveals more profound and subtle sociological implications than 'success or failure' type accounts.

Prof. Miwao Matsumoto  
Department of Sociology  
The University of Tokyo

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This 22-minute movie shows how scientific collaboration could be a strenuous and long drawn process fraught with difficulties and problems despite the benefits it brings to the collaborators. Revealed through the experiences of a long standing physical geographer in South Africa, the movie focuses on both the professional difficulties and advantages of collaboration.

Actors: Gerry Garland, Kerry Philp, Arthur Stinchcombe, Issac Abboy, Tesfagabir Tesfu and students Narration: Njabulo Sithole Music: Thorin Roberts.

Locations: KwaZulu-Natal and Western Cape provinces of South Africa.

Produced by R. Sooryamoorthy, Sociology Programme, University of KwaZulu-Natal, Durban 4041, South Africa (sooryamoorthy@ukzn.ac.za) 2006 produced by R. Sooryamoorthy (sooryamoorthy@ukzn.ac.za).

## **REDES** – revista de estudios sociales de la ciencia y la tecnología

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**REDES** se edita desde 1994 y es una de las primeras publicaciones regionales dedicadas a estos temas. Ofrece al público de la región iberoamericana (investigadores, docentes y lectores interesados en general) un espacio especializado en los diferentes aspectos incluidos dentro de los **Estudios Sociales de la Ciencia y la Tecnología**.

**REDES** es una revista con vocación latinoamericana, que pretende estimular la investigación, la reflexión y la publicación de textos en el amplio campo de los estudios sociales de la ciencia y la tecnología, y en todas las subdisciplinas que lo conforman (sociología, política, historia, economía, comunicación, gestión, antropología, educación, análisis institucional, filosofía).

A lo largo de 25 números y trece años **REDES** ha difundido también traducciones al español de textos relevantes en el desarrollo del campo de los Estudios Sociales de la Ciencia y la Tecnología.

Pablo Kreimer  
**Director**

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## BOOK REVIEWS

### **THE DEVELOPMENT OF SOCIAL NETWORK ANALYSIS: A STUDY IN THE SOCIOLOGY OF SCIENCE**

**Linton C. Freeman  
Empirical Press, Vancouver: 2004.**

Review by Roland Werner<sup>1</sup>

The first impression after completing the book is that it is thorough in content, rich in detail, and well organized for summarizing the growth of the intellectual tradition that leads to today's elaboration of social network analysis.

Freeman develops an analytical model that he uses to analyze contributions from Compt (structuralist) to Wellman (unification) to the development of social network analysis. The four components of this model are:

1. "Social network analysis is motivated by a structural intuition based on ties linking social actors,
2. It is grounded in systematic empirical data,
3. It draws heavily on graphic imagery, and
4. It relies on the use of mathematical and/or computational models" (p. 3).

He finds that early structuralists contributed mostly at intuitive, empirical levels of analysis, leaving graphic representation and mathematical treatment to later generations. These early structuralists included Compt, Tönnies, Durkheim, Spencer, Cooley, LeBon, and Simmel. More systematic early contributions were made by Morgan, Macfarlane, Hobson, Calton, and Watson.

Freeman continues with the rise and decline of two schools of thought spearheaded in the 1930's by Moreno and lead by W. Lloyd Warner at Harvard. These schools began to contribute at the more formal graphic levels of analysis. After this period of awareness, in the Dark Ages (the '40s, '50s and '60s), twelve nearly independent schools of thought reemerged, blossomed for a time and then withered. They emerged both in parallel and in sequence. It was the Renaissance at Harvard led by Harrison C. White and his students who contributed to the diffusion of social network analysis by their academic moves and associations.

Freeman follows this trail meticulously through associations, academic meetings, creation of an organization, and a journal. This trail leads to the modern integration of social network analysis.

"There seemed to have been eight ways in which various individuals and institutions acted as integrators: (1) Some moved from place to place and in so doing, bridged

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diverse collections of social network scholars. (2) Some produced computer programs that standardized the analysis of social network data. (3) Some organized conferences designed explicitly to bring previously separate groups together. (4) One created an organization designed explicitly to link social network researchers worldwide. (5) One started a journal aimed at centering the literature in the field. (6) One arranged to use an early kind of internet to connect people doing social network research. (7) Working together, some established a series of regular annual meetings. (8) And finally, UCI, the University of California at Irvine, played a special role in unifying the social network community” (p. 136).

Noteworthy is Barry Wellman whose energy brought about this integration. He organized INSNA, The International Network for Social Network Analysis, active since 1981; begun publishing its newsletter, CONNECTIONS; and in association with Freeman, the first editor, began publishing the *Social Networks: An International Journal of Structural Analysis* on August 1978.

Freeman further organizes this vast volume of material in the development of this tradition into a multidimensional social network both cross-sectional to a particular decade and longitudinal over the duration of 170 years. He follows the links of who associated with whom, who taught whom, who moved where, who cited whom, who met whom at professional meetings, and who were the independent inventors. This small book is large in scope. It provides a rich source of names, publications, and institutions for anyone interested in becoming knowledgeable in the diffusion and evolution of social network analysis.

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