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SCIENCE COMMUNICATION IN THE WORLD TODAY – ITS ORIGIN, GROWTH AND ROLE IN DEVELOPMENT

Review by

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***SCIENCE COMMUNICATION IN THE WORLD: PRACTICES, THEORIES AND TRENDS* – Edited by Bernard Schiele, Michel Claessens and Shunke Shi; Springer, London; 2012; ISBN-10: 9400742789; ISBN-13: 978-9400742789; Hardcover: 342 pages; Price: $179**

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With the advancements in the field of science and technology together with the rising concern over socio-economic growth, especially for the developing nations, the importance of appropriate and responsible scientific communication has gained momentum. The fast evolving technologically entwined global society has now accentuated the necessity to develop a mutually understanding dialogic environment between the science practitioners, policy makers and the public. At a time when from health industry to commercial sector, and communication networking to food production, every aspect of national base depends on the development of science and technology, the necessity of effective communication between the science community and the users of their application, to reduce knowledge gap and strengthen development strategy, has increased.

On line of the above view, the book '*Science Communication in the World: Practices, Theories and Trends*' is an essential contribution in the academic discipline of science communication which not only talks in detail about its conceptual framework, but a deeper analysis of the development of public communication of science and technology or PCST and a detailed account of how different nations have understood its necessity to come up with national developmental programs, action plans and dissemination of scientific knowledge across communities for sustained social, economical and cultural growth . The introduction from the editors of the book illustrates, "International conferences held regularly since 1989, specialized publications, university programs in this area and the creation of teaching positions in science communication have firmly established this field. This book therefore reflects vigorous development in research and a growing professionalism of these activities. PCST research is an extremely dynamic field that brings together the whole spectrum of scientific approaches (theoretical description, experimental initiatives, pragmatic approaches, formalization etc.) and is in the

process of becoming a fully separate academic discipline, as evidenced not only by its intellectual productions but most of all by the institutionalization of university studies into three levels."

True to its focus on PCST in the context of globalization, the book is edited by notable researchers and academicians from three different countries. They are - Bernard Schiele, a professor in the department of Communication in the University of Quebec, Montreal in Canada, Michel Claessens, the Office Head in ITER, Route de Vinon sur Verdon in France and Shunke Shi from China Research Institute for Science Popularization.

The book documents the outcome of dynamic research done in the field of science communication by as many as 31 prominent educators and researchers of the field, representing not only their knowledge of expertise in the subject but also imbibe the growth and future of their respective nations in PCST. The book is broadly divided in Part I – national overviews and Part II – horizontal issues and include 20 chapters in total.

The first chapter *"The 'Communicative Turn' in Contemporary Techno-Science: Latin American Approaches and Global Tendencies"* delves deep into the current global practice of techno-science and analyzes the 'communicative turn' in science communication that primarily occurred in terms of changes in the production procedure of scientific knowledge and enhanced relationship between science and the society in the process. The authors Carmelo Polino (a researcher at Centro REDES, Argentina) and Yurij Castelfranchi (a professor of Sociology at the Federal University of Minas Gerais, Belo Horizonte, Brazil) present their research in "three different aspects of communication: in research institutions, in global mass media and in civil society and in 'participatory movements'". The chapter offers a compact as well as wide-ranging account of the global trend in PCST and the equation between the government, academic bodies and the market from the view of a developed nation, in accompany with case studies and examples from Latin America.

The second chapter *"The Evolution of Science Communication Research in Australia"*, written by Jenni Metcalfe (the director of Econnect Communication, Australia) and Toss Gascoigne (the inaugural president of the PCST network), presents an analysis on the setbacks and new development in science communication in Australia, as the name suggests. It addresses the issue of lack of theoretical study and research in science communication which gradually changed after 1990s with the transformation of the field into a multidisciplinary subject that was predominantly viewed from a social science perspective. *"The Development of Science Communication Studies in Canada"*, written by Bernard Schiele and Anik Landry (a professional researcher at UQAM), start with the description of growth and achievement of science communication research in Canada then moves to its history orientation and finally it analyzes the course of direction of major science communication research which was initially depended on the government interest and activeness but later broadened the opportunity with growing university researches.

How science popularization has always played an important in new China in its cultural upliftment but fell short of devising theoretical development is described in *"Science Popularization Studies in China"* by Fujun Ren (the general director at CRISP, China), Lin Yin (Associate Professor and Assistant Director at the Division of Theoretical Studies on Science Popularization, at CRISP) and Honglin Li (a research associate at CRISP). The next chapter *"Policy Perspective on Science Popularization in China"* is written by Shunke Shi and Huiliang Zhang (an assistant researcher in China Research Institute) too deals with science popularization, which as the authors explained, a "Chinese term for the concepts of public understanding of science or public communication of science and technology now prevailing around the world", in aspect of the policy documents that played decisive role in the advancement of the subject in China.

Further, *"Deliberation, Dialogue or Dissemination: Changing Objectives in the Communication of Science and Technology in Denmark"* by Maja Horst (the head of the department of Media, Cognition and Communication at the University of Copenhagen, Denmark) describes science communication in the perspective of Danish cultural context. *"Social Sciences and the Communication of Science and Technology in France: Implications, Experimentation and Critique"* by Michèle Gellereau (a professor of Information and Communication Sciences at the University of Lille, France), Yves Jeanneret (a professor

at Celsa, the school of information and communication sciences of Paris Sorbonne University) and Joëlle Le Marec (a professor of Information and Communication Sciences at the University of Paris Diderot, France) analyses the changes brought in the field of science with the growing importance on 'communication' in France in view of the inclusion of various interdisciplinary concepts in social science. In "*The Recent Public Understanding of Science Movement in Germany*" Markus Lehmkuhl (a science journalist and senior researcher in Berlin) describes the recent history of science communication in Germany in view of science journalism and the role of science in terms of social impacts.
The history of the changing relationship between the science and public and accounts the development of science communication in India is illustrated in *"Public Understanding of Science: Glimpses of the Past and Roads Ahead"* by Gauhar Raza (an Indian scientist and head of the science communication department at the National Institute of Science Communication and Information Resource), Surjit Singh (a researcher at the National Institute of Science Communication and Information Resources) and P. V. S. Kumar (a social scientist and PhD from IIT – Bombay).
In *"Whose Science? What Knowledge? Science, Rationality and Literacy in Africa"*, Hester du Plessis (a senior research specialist at Human Sciences Research Council, South Africa) describes about the issues, diverse influences and development of science communication in South Africa. *"An Experience of Science Communication in Korea: The Space-Sharing Project with Mass Media"* by Sook-Kyoung Cho (the program director at Korea Foundation for the Advancement of Science and Creativity) analyses the role of science communication in the national and economic development of Korea and the following chapter *"From Science Popularization to Public Engagement: The History of Science Communication in Korea***"** by Sung Kyum Cho (a professor in the department of Communication in Chungnam National University, South Korea) and Ock Tae Kim (a research fellow in the department of Communication, Dongguk University, Seoul) is an extensive study of science communication in Korea but primarily focused on Science Korea Movement that was launched to revamp public interest in the field along with stronger research initiatives.
"Spanish PCST and the European Science in Society Strategy" by Vladimir de Semir (a science journalist) delineates the concept of 'science and society' in European setting. *"Science Museums and Cultural Images of Modernity: Scientific Communication, New Identities and Sociopolitical Constraints on Science Museums in Spain"* by Xavier Roigé (a professor of social anthropology in the University of Barcelona) explains PCST in the context of science museums in Spain.

In the second part of the book - 'Horizontal Issues', the chapter *"Slowly But Surely: How the European Union Promotes Science Communication"*, written by Michel Claessens analyses the scene of science communication – its historical background and development, as promoted by the European Union. In *"Vital and Vulnerable: Science Communication as a University Subject"* Brian Trench (a science communication researcher) documents the growing significance of science communication as an established field of study in universities and allied areas of research. "*Visible Scientists, Media Coverage and National Identity: Nobel Laureates in the Italian Daily Press"* by Massimiano Bucchi (a professor of Science and Technology at University of Trento, Italy), as the title implies, analyses the press coverage of scientific innovation and achievement in Italian press, especially in the light of 1909 Nobel Prize winner Guglielmo Marconi. In *"Engagement: The Key to the Communicative Effectiveness of Science and Ideas"* Hak-Soo Kim (a professor at the College of Communication, Sogang University) describes the theoretical concept of engagement in relation to the impact and effectiveness of science communication. *"From Public to Policy"* by Jan Riise (a freelance science communication project manager, Sweden) discusses science communication in view of various public opinion, interest and expectation and national policies. In the final chapter of the book, Martin W. Bauer (a professor in Social Psychology and Research Methodology at London School of Economics) discusses about science as a socio-cultural change agent in "*Science Culture and Its Indicators"*.
On the whole, 'Science *Communication in the World: Practices, Theories and Trends*' will undoubtedly be considered as a timely and one of the most comprehensive books available in the subject for media

practitioners and scholars, with adequate chronological records on the subject as well as the detailed account on its current issues and trends.