

# Communicating current research to various audiences

Training course to improve scientists' personal skills in communicating the value and the results of current research

Adriatico Guesthouse, ICTP (Trieste) 28 November - 2 December 2016

- The course aims at empowering active scientists wishing to develop their skills to communicate current research to various audiences through various media.
- The course will last 5 days and include theoretical presentations and practical workshops, following international best practice.
- All speakers and facilitators have a direct personal experience in the field, as well as research and training competences. They have worked in various contexts with various audiences, from children to policy makers.
- Peer-to-peer learning will also be facilitated since it is expected attendees will come from different parts of the world and have interesting and varied profiles.

## Speakers

**Andrea Bandelli**, Vrije Universiteit, Amsterdam (The Netherlands)

**Yurij Castelfranchi**, Professor of Sociology at the Federal University of Minas Gerais (Brazil)

**Simona Cerrato**, Science for children and outreach activities, SISSA Medialab, Trieste (Italy)

**Bojan Markičević**, Science Communication Consultant, Zagreb (Croatia)

**Olga Puccioni**, Science for children and outreach activities of the SISSA Children University, Trieste (Italy)

**Paola Rodari**, Project Manager, SISSA Medialab, Trieste (Italy)



## Day 1 – Monday 28 November 2016

Introduction to the course. Why communicate science and technology?		
09.30-10.00	<b>Course introduction and participants' presentations</b>	Course presentation and speed dating to facilitate participants getting to know each other institutions and projects
10.00-10.30	Coffee break	
10.30-11.30	<b>Why communicate science and technology?</b> Workshop 1: A discussion game helps participants to reflect on their motivation for the communication of science.	Workshop led by Simona Cerrato
11.30-13.00	<b>Science in society</b> Why the dialogue between science and society matters. Current practices, challenges and opportunities. Institutional and personal benefits.	Presentation by Yuriy Castelfranchi
13.00-14.00	Lunch	
14.00-14.45	<b>Motivation, interests, fears and expectations in the public</b> Current researches on the public perception of science and technology.	Presentation by Paola Rodari
14.45-16.00	<b>Identifying audiences and stakeholders</b> Workshop 2: Participants work in groups to identify their audiences and to reflect on barriers and opportunities to the communication towards them.	Workshop led by Yuriy Castelfranchi, Simona Cerrato, Paola Rodari
16.00-16.30	Coffee break	
16.30-18.00	<b>Armchair tour of the world</b>	

## Day 2 – Tuesday 29 November 2016

Relevance, interest and motivation		
09.30-10.30	<b>Basics on science news</b> Presentation on key concepts of science journalism. The “so-what” principle: relevance, motivation and interest. Routines and practices of science reporting.	Presentation by Paola Rodari
10.30-11.00	Coffee break	
11.00-13.00	<b>From the scientific abstract to published news report</b> Workshop 3: Participants work in small groups on scientific abstracts. They have to identify reasons for general interest and write the headline and a summary for a news report. Real examples of news reports based on the same abstracts are then presented and discussed.	Workshop led by Paola Rodari
13.00-14.00	Lunch	
14.00-17.30	<b>Publics in Action: What people do (and make) with Science and Technology (and with science communication)</b> Workshop 4. Participants continue to reflect on their audiences and their objectives.	Presentation by Yuriy Castelfranchi Workshop led by Yuriy Castelfranchi and Paola Rodari
Coffee break available during the workshop		
17.30-18.00	<b>Wrap up of the day</b>	

## Day 3 – Wednesday 30 November 2016

Science direct: how to talk effectively to various audiences		
09.30-13.00	<p><b>“What are you working on?”</b></p> <p>How to narrate current research to various audiences</p> <p>Workshop 5: Participants are asked to present their research in few minutes to different audiences. Results are commented.</p>	Presentation and workshop by Simona Cerrato
Coffee break available during the workshop		
13.00-14.00	Lunch	
14.00-15.00	<p><b>A programme of school visits at the International School for Advanced Studies (Trieste, Italy)</b></p> <p>A case study.</p>	Presentation by Simona Cerrato, Olga Puccioni and SISSA Phd students
15.00-15.15	Coffee break	
15.15-16.30	<b>Examples of activities</b>	Presentation by Simona Cerrato, Olga Puccioni and SISSA Phd students
	Visit to town	
19.30	Social dinner	

## Day 4 – Thursday 1 December 2016

When the dialogue is complex, when the dialogue is difficult		
09.30-11.00	<b>Challenges of communicating science to policy makers</b> Round table with representative of the scientific institutions of Trieste	Interviewer Andrea Bandelli
11.00-11.30	Coffee break	
11.30-13.00	<b>From public engagement to scientific citizenship</b> How public participation becomes an integral component of science communication.	Workshop led by Andrea Bandelli and Yurij Castelfranchi
13.00-14.00	Lunch	
14.00-17.30	<b>Discussion games</b> Workshop 6: Participants experience examples of discussion games as a tool to promote and feed the discussion on the social dimensions of science and technology progress.	Workshop led by Andrea Bandelli and Paola Rodari
Coffee break available during the workshop		
17.30-18.00	<b>Wrap up of the day</b>	

## Day 5 – Friday 2 December 2016

Communication strategies		
09.30-10.30	<p><b>The Science Gallery of the Trinity College, Dublin</b></p> <p>A case study.</p>	Presentation by Andrea Bandelli
10.30-13.00	<p><b>Selling fog: Communicating about science where science is (not) important</b></p> <p>Science education is a low priority in post-conflict zones, but on the contrary it can be an instrument of tolerance and development</p> <p>Workshop 7: Examples of activities which were specially designed for post-conflict zones</p>	Presentation and workshop led by Bojan Markičević
Coffee break available during the workshop		
13.00-14.00	Lunch	
14.00-15.00	<p><b>1-1 problem solving</b></p> <p>Workshop 8: This session is devoted to give individual or group advise to participants to plan their own communication activities.</p>	Workshop led by all present facilitators
15.30-16.00	Coffee break	
16.00-17.00	<b>Course summary and course evaluation</b>	

**Andrea Bandelli** is a scholar in science communication and an advisor for science education projects and institutions. After pioneering the use of internet in schools and museums in the early 1990's, Bandelli worked at the development of the science center NEMO in Amsterdam, the Miami Museum of Science and became a partner of NISE, the Nanoscale Informal Science Education network. In 2004 he launched PlayDecide, a project which continues to engage several thousands people in debates and discussions on contemporary science. Andrea was the coordinator of the academic program for the first African Science Communication conference in 2006 and has developed, managed, evaluated and directed several international projects on science, art, democracy and public participation in collaboration with Ecsite, the European network of science centers and museums. He has published several articles on public engagement with science and he is currently conducting doctoral research at the VU University Amsterdam, the Netherlands, on scientific citizenship and the role of the public in the governance of science centers.

**Yurij Castelfranchi** graduated in quantum physics at the University of Rome, becoming later a professional science writer and journalist for 15 years. In love with travel, peoples and forests, he moved to Brazil, where he became a scholar in science communication and earned his PhD in sociology of S&T. As a writer, he collaborated with newspapers, radios, TVs, and magazines, and authored 6 books, as well as educational and multimedia products. As a scholar, he worked at SISSA (<http://mcs.sissa.it/>), teaching science journalism, has been a researcher at Labjor (Laboratory of Advanced Studies in Journalism, Unicamp, Brazil) and a collaborator of OEI (the Organization of Iberoamerican States for Science and Culture). Today, he is associate professor of Sociology at the Federal University of Minas Gerais (Brazil), where he coordinates "InCiTe" (Innovation, Citizenship, and Technoscience Research Group). He is a member of the National Institute of Science and Technology for Science Communication. In 2015, he has been awarded, as one member of the winning team in science communication, the Mercosur Prize for Science and Technology. In 2016, he has been awarded a prize, by the State Foundation of S&T (Fapemig), for his contributions in promoting the advancement of science and public participation.

**Simona Cerrato** is graduated in Physics and specialised in Cosmic Physics at the University of Turin, and got the Master in Communication of Science at SISSA. She is now working at SISSA Medialab to various projects at an international level: science portals and magazines for the lay public, museums and exhibition development, training courses for different audiences (museum explainers, science journalists, etc.). In particular she is specialized in the communication of science to children and teenagers. She writes the science section of the magazine Giulio Coniglio directed by Nicoletta Costa and dedicated to 3-6 year-old children, she edits the book series Women in science published by Giunti-Editoriale Scienza for which she also wrote some titles, she was the editor-in-chief of the magazine Città della Scienza junior dedicated to 8-10 year-old children. She coordinated the three expeditions Mini vulcanologi alla scoperta dei vulcani italiani to Italian volcanoes, Mini Darwin alle Galápagos. L'evoluzione raccontata dai bambini and Mini Darwin in Argentina both on the Darwin's footsteps, all involving scientists and children as active partners. From these experiences she wrote three books, edited a documentary film, and curated the related travelling exhibitions.

**Bojan Markičević** is a geophysicist and experienced science communicator who is involved in education both at formal and informal level. Currently teaches physics in Zagreb, at the Fifth gymnasium (one of Croatia's best natural science high schools) and coordinates the Centre for advancement of education within Science and Society Synergy Institute, Croatia. With French non-profit association Atelier des Jours a Venir he works as a trainer for University Paris Descartes and ETH in Zurich. He is actively involved as a teacher trainer for the Summer Science Factory since its beginning in 2007. He is a host of the science radio show: "Science on air". In 2009 he gathered international and interdisciplinary team to develop science communication as a conflict management tool, giving birth to the Con-Sol project (Constructive Solutions). With that particular project he held workshops and lectures at universities all over the world like: Beijing, Amsterdam, Addis Ababa, and UCLA in California. He often experiments teaching with drama techniques as a tool for better conceptual understanding of scientific phenomena. He was born in Sarajevo, Bosnia and Herzegovina, but always says that by nationality he is a resident of planet Earth. Shows. He was also the chief editor of a monthly magazine for curious young children, Petka.

**Olga Puccioni** was born near Florence in 1985, she got a Master degree in Experimental Psychology at the University of Florence and then moved to Trieste to study Cognitive Neuroscience in SISSA. In 2014 she got her PhD in Cognitive Neuroscience and a Master in Complex Action both in SISSA. From March 2014 she collaborates with SISSAMedialab coordinating the outreaching initiatives such as SISSA FOR SCHOOLS and SISSA boot at TriesteNEXT.

**Paola Rodari** is project manager and content developer for the development of new science centres and museums for SISSA Medialab. She has been the project leader for the realisation of Italian science centres where she also worked as leader of educational services and scientific leader for the development of new projects. She has been funder and spokesman of THE group, the Thematic Human Interface and Explainers group of Ecsite (the European network of science museums and science centres), dedicated to the professional development of museums educators. She teaches Museums Studies at the SISSA Masters in Science Communication and has been organizer, speaker and tutor of many international courses. She is involved in many European action/research projects aiming to develop new programmes and tools for the communication of sciences. She is author of many papers and books on the science communication of science and works have been translated in English, Spanish and Portuguese.