

THE FUTURE OF SCIENCE™



Twelfth World Conference on The Future of Science
“Digital Revolution: what is changing for humankind?”

22 – 24 September 2016

Venice, Fondazione Giorgio Cini, Isola di San Giorgio Maggiore

Program draft with invited Speakers – July 29th, 2016

The pervasive Digital Revolution is one of the most topical phenomena of our age, bringing about profound changes on the social, cultural, medical and scientific level.

Every stage of our life is undergoing deep transformations as traditional roles and phases evolve, with largely unexplored consequences of the greater human –machine collaboration.

The twelfth edition of "The Future of Science" World Conference will attempt to unveil the secrets of the digital age. From 22 to 24 September, some of the world's leading experts will gather on the Island of San Giorgio Maggiore in Venice to discuss the most pressing issues arising from this revolution.

For information and registration info@thefutureofscience.org - www.thefutureofscience.org

CONFERENCE COMMITTEES:

- **President** - Umberto Veronesi
- **Vice President** - Kathleen Kennedy Townsend
- **Secretary General** - Chiara Tonelli
- **Organizing Committee** - Carlo Bucci, Pasquale Gagliardi, Armando Peres, Lucio Pinto, Monica Ramaioli, Giada Tronchetti Provera

THE CONFERENCE IS ORGANIZED BY:



PARTNER



MEDIA PARTNER



Thursday September 22 nd , 5.00 p.m. – 7.00 p.m.		
WELCOME ADDRESSES		
OPENING LECTURES		
• Alessandro Curioni	IBM Fellow, Vice President Europe and Director, IBM Research - Zurich	<i>Cognitive Computing and the Future of Science</i>
• Sheila Jasanoff	Pforzheimer Professor of Science and Technology Studies Director, Program on Science, Technology and Society Harvard Kennedy School	<i>The relation between Science, Technology, and Society</i>
Thursday September 22 nd , 7.00 p.m. – 9.00 p.m.		
WELCOME COCKTAIL		
Friday September 23 rd , 9.00 a.m. – 1.00 p.m.		
<p>NEW FRONTIERS IN DATA DRIVEN WORLD</p> <p>It is clear for all to see that digitalization continues to move at an extraordinary pace. The digital revolution will bring new parameters to the surface, bound to become increasingly relevant for our lives and among the most important sources of economic and social development for mankind.</p> <p>This session will examine the evolution of the most critical aspects of the digital revolution, such as virtual reality, the connectivity of people and devices which make up the Internet of things, data security and integrity, the Cloud, Big Data, the new sharing economy platforms, digital cities, as well as the concepts of Brainframes and connected intelligence.</p>		
Chairs: Lucio Pinto , Managing Director, Fondazione Silvio Tronchetti Provera and Massimo Sideri , Innovation Editor of Corriere della Sera		
• Alberto Sangiovanni-Vincentelli	Edgard and Harold Buttner Chair, Dep.of Electrical Engineering and Computer Sciences, University of California at Berkeley	<i>Internet of Things (IOT) and Virtual Reality</i>
• Alfonso Fuggetta	Professor, Politecnico di Milano; CEO and Scientific Director, CEFRIEL	<i>Big data: challenges and opportunities</i>
• Derrick de Kerckhove	Professor, Former Director of the McLuhan Program in Culture and Technology, University of Toronto	<i>Connected Intelligence in Scientific Research</i>
• Carlo Ratti	Director, MIT Senseable City Lab Founding Partner, Carlo Ratti Associati	<i>Senseable Cities</i>
• April Rinne	Sharing Economy Advisor, Portland, Oregon	<i>The Sharing Economy: Rethinking Commerce, Connectivity and Community</i>
PANEL DISCUSSION		
LUNCH		

Friday September 23rd, 2.00 p.m. – 6.00 p.m.

THE DIGITAL SOCIETY: CONNECTED, VIRTUAL AND SMARTER

Digitalization is impacting our society in multiple ways. It is changing the way in which we relate to each other, in which we communicate. Through increased connectivity humanity is generating an unprecedented amount of data. The impacts are huge and they concern several aspects of society, including:

- The way in which democracy works and in which we participate to the political process;
- The way in which we use this huge amount of information for improving our predictions of the future and create innovations.

At the same time, the digital revolution raises intellectual concerns about the true societal value of digital information and big data, while we need to be aware that technological discoveries cannot be the only drivers of a modern society.

Chairs: Pier Luigi Vercesi, Director of Sette - Corriere della Sera and Emanuele Borgonovo, Professor Department of Decision Sciences, Bocconi University

<ul style="list-style-type: none">• Patrizia Nanz <i>and</i>• Ariane Götz	Scientific Director of the Institute for Advanced Sustainability Studies; Professor for Transformative Sustainability Studies, University Potsdam; Chair of the European Institute for Public Participation. Research Associate, Sustainability Governance, Institute for Advanced Sustainability Studies, Posdam	<i>Democracy in the digital age – Challenges and chances for political participation</i>
<ul style="list-style-type: none">• Gary King	Albert J. Weatherhead III University Professor, Department of Government; Director of the Institute for Quantitative Social Science, Harvard University	<i>Innovations that span the range from statistical theory to practical application</i>
<ul style="list-style-type: none">• Carlo Batini	Professor, Department of Computer Science, Università degli Studi-Milano Bicocca	<i>The social value of big data</i>
<ul style="list-style-type: none">• Massimiano Bucchi	Professor of Science and Technology in Society, Università di Trento	<i>Why Technology is not enough: Innovation, society and culture</i>
PANEL DISCUSSION		

Saturday September 24th, 9.00 a.m. – 12.30 a.m.

COMBINING THE DIGITAL AND BIOLOGICAL WORLD

In the life sciences, the biotechnological toolkit allows to study biological phenomena more and more as integrations of digital data: from genomes to epigenomes, from cells to organs, all more or less classically defined levels of biological organization are now amenable to a digitizing ambition that probes them as representations of the environment, of our health and diseases, avatars of virtually all aspects of biology that are being progressively domesticated as objects of inquiry and experimentation.

Chairs: **Gabriele Beccaria**, Scientific reporter and editor of Tuttoscienze – La Stampa and **Chiara Tonelli**, Vice-Rector for Research, Professor of Genetics, Department of BioSciences, University of Milan

• Sabina Leonelli	Professor Philosophy of Science, University of Exeter	<i>Integrating Biological, Biomedical and Environmental Data: The Impact of Digital Technology on Research</i>
• Tony Pridmore	Professor, School of Computer Science, University of Nottingham	<i>Image-based Plant Phenotyping - Computer Vision From Lab to Field</i>
• Paul Kersey	Team Leader, Non-vertebrate Genomics, European Bioinformatics Institute, European Molecular Biology Laboratory, Cambridge, UK	<i>Ensemble: Structuring Knowledge for Biomedical Application</i>
• Michael Seewald	Head, Center of Excellence in Real World Evidence, Novartis Basel	<i>Using Big Data and Real World Evidence to Improve Health Outcomes – Industry Perspective</i>
• Albert Farrugia	Scientific and Regulatory Senior Advisor, Kedrion Biopharma; Adjunct Professor, School of Surgery, University of Western Australia	<i>Title to be defined</i>
• Giuseppe Testa	Professor of Molecular Biology, University of Milan; Director, Laboratory of Stem Cell Epigenetics, European Institute of Oncology	<i>Digitization of the living</i>

PANEL DISCUSSION