



# 2017 Altius Conference at Oxford

## *The Future of Communication*

*An Opportunity for Humankind and a Challenge to Democratic Societies  
in the Age of Technological Disruption and the Rise of the Human-Machine  
Collective Mind*

SEPTEMBER 29<sup>TH</sup> – OCTOBER 1<sup>ST</sup>

Oxford Union, Debating Chamber  
University of Oxford





# ***The Future of Communication An Opportunity for Humanity and a Challenge to Democratic Societies in the Age of Technological Disruption and the Rise of the Human-Machine Collective Mind***

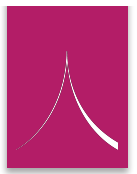
## **Introduction**

The Altius Society was founded in 2012 with the aim of becoming the global forum where senior practitioners, academics, and political leaders, as well as young promising thought leaders gather to discuss the most relevant strategic trends of the 21st century and their impact on the future of our societies and our economies.

The necessity to foster interdisciplinary dialogue between young professionals who have proven excellence in their respective domains (academia, economics and private enterprise, politics and public service, philanthropy, and cultural creativity) lies at the heart of Altius.

The velocity and complexity of social change, the need to encourage a deep reflection and understanding of future global trends, and the awareness that tackling challenges requires not only an interdisciplinary approach that draws from numerous fields of intellectual and social life, but also a broad international perspective, convinced a group of graduate students at Harvard University and the University of Oxford of the benefits of an organization like Altius.

As a catalyzer of this multidisciplinary debate, every year Altius selects a major *Theme* which is discussed from five diverse perspectives –Scientific, Social, Cultural, Economic and Political,– brought by Altius Members as well as prominent leaders in the field.

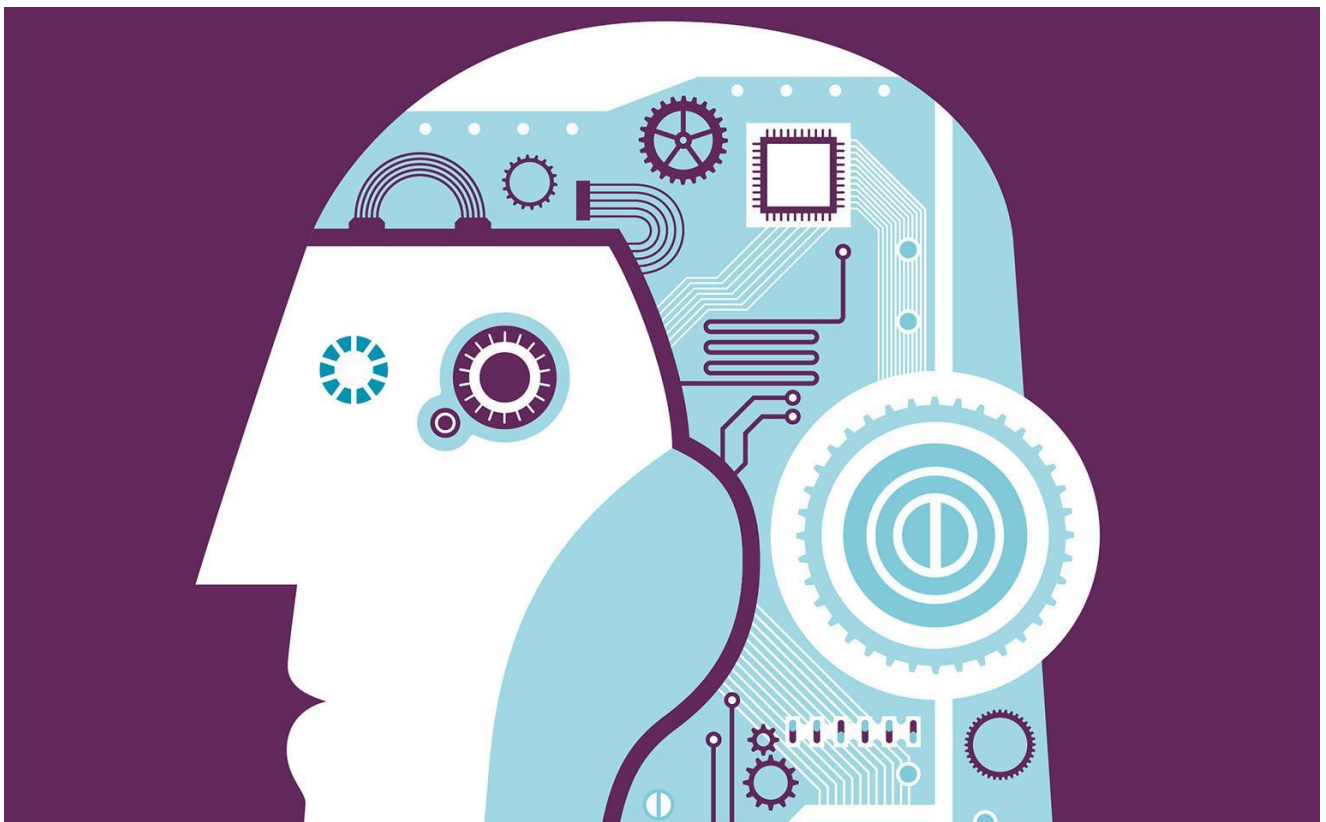


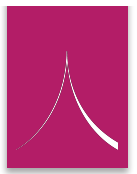
Building upon the theme that we discussed last year (*The Brain of the Future: Artificial Intelligence, Robotics and Automation, and Politics in the Age of Thinking Machines*), our debate this year will expand beyond the analysis of technological trends, to cover topics such **as the disruption to democratic societies as a result of the 'disintermediation' of information, the fragmentation of political power, the challenge to intellectual authority in the age of new media and disruptive technologies, and ultimately the impact for the future of human identity and the requirement of a new paradigm of national and global governance.**

This Theme will allow us to explore one of the most significant vectors of change of our time: **The Rise of the Human-Machine Collective Mind**, understanding 'machine' as a concept beyond its physical connotations.

The Conference will take place at the Oxford Union Debating Chamber, the world's most prestigious debating venue, and it will be structured in five major lines of discussion:

1. **The State-of-the-Art Research** on future Communication Technologies, including Quantum Communication, Brain-Machine Interaction (BMI), Augmented and Virtual Reality (AR and VR)
2. **The Short-Term Disruption:** the Challenge to Democratic Societies by Unsupervised Communication Platforms
3. **The Medium-Term Implications:** Economic Challenges and Opportunities Posed by the Enhancement of Communication Devices and the Disintermediation of Information
4. **The Long-Term View:** Philosophical and Ethical Debates on BMI, Human Identity, and the Role of the Human Species
5. **The Global Perspective:** the impact on the Global Geopolitical Architecture





## Friday, September 29<sup>th</sup>

**15:00-15:30 Registration**, Oxford Union, Debating Chamber

**15:30-15:40 Opening Remarks**, by Alexandre Pérez, President of Altius

**15:40-16:30 Opening Address**

*"The Future of Science and Humanism in Democratic Societies:  
Recovering Intellectual Authority in the 21<sup>st</sup> Century"*

**A Keynote by Sheldon Glashow**, 1979 Nobel laureate in Physics, key contributor to the Standard Model of Physics, Higgins Professor of Physics Emeritus, Harvard University, Arthur Metcalf Professor of Science and Mathematics, Boston University

*Keynote supported by G. Rodríguez-Fraile*

**16:30-19:15 Section 1: The Scientific Potential of Upcoming Communication Technologies. What to Expect in the Coming Two Decades**

Format: Expert presentations and discussion of the state-of-the-art communication technologies.

Sub topics:

1. Quantum computing, quantum information and the future of information technologies
2. The Role of AI as a catalyzer of enhancements in human communication



3. New technologies for trusted communications: *Blockchain* and the case of the financial sector
4. The Potential of Brain-Machine Interaction (BMI), Augmented and Virtual Reality (AR/VR) as enablers of human-to-human communication
5. The Long-Term Consequences of Quantum Mechanics for Human Relations and the Legal System

Chair: *Jacobo Roa Vicens*

### Opening Keynote

*"Towards a Quantum Leap in Computing and Communication"*

**A Keynote by Peter Zoller**, 2013 Wolf Prize in Physics and 2006 Dirac Medal for his pioneering research on Quantum Computing and Quantum Communication

Speakers:

- **Philip Treleaven**, Professor of Computing and Director of the Financial Computing Centre, University College London, previously Pro-Provost responsible for UCL's International Relations
- **Andrew Briggs**, Professor of Nanomaterials, University of Oxford
- **Lapo Bogani**, Professor of Materials, University of Oxford
- **\*Sir Anthony Leggett**, 2003 Nobel laureate in Physics, Professor of Theoretical Physics at the University of Illinois



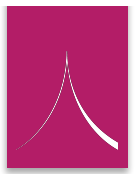
**19:30-21:00 Dinner & Dialogue** at Pembroke College Dining Hall

*"Compassionate Disruption: Humanizing Social Media"*

### **Keynote by Monsignor Paul Tighe**

*Adjunct Secretary, Pontifical Council for Culture, previously at the Vatican's Council for Social Communications, and Secretary to the Committee to restructure the Holy See's Media operations (Patten Committee), now charged with promoting reflection within the Church on the wider cultural transformation being effected by digital technology and social media*

*Discussant: Thomas Dermine*



## Saturday, September 30<sup>th</sup>

### 09:00-11:30 Section 2. *The Long-Term Philosophical Perspective:*

*From the Neurobiological Understanding of Perception, to the Future of Human Identity and the Sociology of Human Communication*

Format: Keynote presentations followed by a debate.

Sub topics:

1. Beauty, Truth and the Human Spirit
2. The Neurobiological Basis of Perception: 'The Self and The Other'
3. The Experience of Mathematical Beauty. The Science of Emotions: From Love to Hate. The Good, the True, and the Beautiful: *Geisteswissenschaften* vs. *Naturwissenschaften*
4. Memes and 'temes': the role of technology in self-replicating ideas
5. Towards a Comprehensive Understanding of Human Communication

Chair: Carlos Blanco

Debate Participants:

- **Sir Michael Atiyah**, 2006 Abel Prize in Mathematics and 1966 Fields Medalist, former Master of Trinity College, Fellow and Past President of the Royal Society, and Honorary Professor at the University of Edinburgh
- **Semir Zeki**, Fellow of the Royal Society, Head of the UCL Laboratory of Neurobiology, father of *Neuroaesthetics* and author of 'A Vision of the Brain'
- **Susan Blackmore**, British writer and broadcaster, author of *The Meme Machines* and *Conversations on Consciousness*.
- **Piero Dominici**, Professor of Sociology and Communication, Università di Perugia

11:30-12:00 Group Photo





**12:00-12:30 Science, Technology and Law**

**A Keynote by Antonio Garrigues Walker**

*Chairman of the World Association of Lawyers, Honorary Chairman of Garrigues, one of the largest European law firms*

*Discussant: Hamouda Chekir*



**12:30-13:30 Lunch Break** at the Oxford Union



**13:30-16:00 Section 3. The Political Economy of the Future.  
Framing the Foundations of a New Democratic Process**

Format: Keynote presentations, followed by discussion

**Part I. Prosperity and Economic Growth in a Networked World**

**Opening Keynote**

*"The Growth of Nations: 'Who is to Blame: Productivity Growth or our Political System'"*

**A Keynote by Finn E. Kydland, 2004 Nobel Laureate in Economics, Distinguished Professor of Economics, University of California**

*Keynote supported by Wilmot ML*

◆ **The Complexity of Economics in the Era of Technological Disruption.**

**Keynote Presentation by Doyne Farmer**, Co-Director of the Institute for New Economic Thinking at the Oxford Martin School, and Professor of Complexity Economics, University of Oxford

**Part II. Policy vs. Politics in the 21<sup>st</sup> Century**

**Opening Keynote**

*"We the People, and the Republic we must reclaim"*

**A Keynote by Lawrence Lessig,**

*Professor of Law and Leadership at Harvard Law School, former Director of the Edmond J. Safra Center for Ethics at Harvard University, founder of the Center for Internet and Society at Stanford University, founder of Creative Commons, and 2016 Candidate for the Democratic Party's nomination for President of the United States*



◆ **Policy vs. Politics: The Challenge of Post-Truth Era Politics for the Survival of Responsible Economic Policy**

**Keynote Presentation by Belen Romana**, Board Member of Banco Santander, former Chairwoman of SAREB (*"Restructured Banks Asset Manager Company"*, with over €50bn of assets, the largest distressed real estate fund manager in the Eurozone created at the peak of the financial crisis in Spain)

Sub topics:

1. Economic Policy, Governance and Institutions in the Age of Technological Disruption and the Fragmentation of Power
2. The New Economic Paradigm for the 21<sup>st</sup> Century
3. Promise and Peril of Globalization and the Digitization of the Market Economy
4. The Viability of Representative Democracies in Increasingly Connected Societies
5. The 'War' on National Elections Integrity: A Challenge for Democracy

Chair: Alexandre Pérez Casares

◆ **16:15-17:00 Coffee Break** at the Oxford Union

◆ **17:00-19:15 Section 4. The Global Perspective:**

*Global Politics and Governance in the Age of Disintermediated Information. Towards a New Balance of Power*

Format: Presentations followed by debate

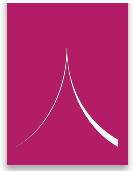
Sub topics:

1. Prosperity and Security in a Networked World
2. Nationalism vs. Globalism: The New Political Divide
3. The Evolution of *Soft-Power* in the Post-Truth Era
4. Global Existential Risks in a World of Increased Complexity in light of the New Challenges to Intellectual Authority
5. Towards a New Paradigm of Multilateralism for a Viable 'New World Order'

Speakers:

- **Corneliu Bjola**, Professor of Diplomatic Studies, Oxford Department of International Development
- **Enrique Iglesias**, KOGF, Ibero-American Secretary General 2005-2014 (elected by the Heads of State and Government of Latin America, Spain and Portugal), President of the Inter-American Development Bank 1988-





2005 (the main source of multilateral financing in Latin America). Member of the Global Leadership Foundation

- **Anthony Gooch**, Director of Public Affairs and Communications, OECD
- **Marcin Kilanowski**, Ass. Professor Department of Law at Nicolaus Copernicus University

*Co-Chairs: Jose María Beneyto and Maxime Parmentier*



**19:30-21:30 Dinner & Keynote** at New College Dining Hall

*"The Human Certainties"*

**By Rosalia Arteaga**, *former President of the Republic of Ecuador, Board Member of the Library of Alexandria and the Encyclopædia Britannica*

*Discussant: Nabila Agila*



## Sunday, October 1<sup>st</sup>

### 9:00-10:45 **Section 5. The Future of Media and Intellectual Authority: Post-Truth & the Culture of Dissent in Western Democracies**

*Introduction:* Advancements in technology have forever displaced the traditional business models established and relished by enduring media brands. Nevertheless, it is easy to misunderstand the uncertainty of today's media landscape as a battle among new and old, traditional media and its disruptors. Increasingly, the future of media seems to be a collaborative venture between existing franchises and new innovators in the space.

Sub topics:

1. The Growing Gap between 'Mainstream Media' and the Layman's Debate: The Case of the United States Presidential Election
2. Where Old and New Media Converge
3. Scientific Skepticism and How to Recover Intellectual Authority in the Age of New Media. The Case of Climate Change
4. Post-Truth & the Culture of Dissent in the Largest Democracies. Towards a Vibrant and Ethical Media in a Democratic Society
5. The Future of the 'Human Colossus' Enabled by Disruptive Enhancements in Communication Technologies

Section Keynote Speakers:

- **Deb Roy**, Chief Media Scientist of Twitter, Director of the MIT Laboratory for Social Machines
- **Rajendra Pachauri**, former Chairman of the Intergovernmental Panel on Climate Change (IPCC), co-recipient of the 2007 Nobel Peace Prize
- **Alex Romero**, Founder and Chief Executive Officer of Alto Data Analytics

*Chair: Alexander Görlach*

**11:00-11:15 Coffee Break** at the Oxford Union



**11:15-11:30** “Connecting Basic and Applied Science. From Knowledge to Social Prosperity”

By Bjorn Nilsson, President of the Royal Swedish Academy of Engineering Sciences, the world's oldest academy of engineering sciences

Discussant: Oscar Jonsson



**11:45-12:15** Closing Address

“Promoting Open Communications in the Sciences”

**A Keynote by Harold Varmus**, 1989 Nobel laureate in Medicine, former co-chair of President Obama's Council of Advisors on Science and Technology, Lewis Thomas University Professor at Cornell

Discussant: Joseph Moon



**12:15-13:45** Closing Remarks and Final Debating Session

Format: Open debate and contribution to the summary of Key Action Themes, this. The session will start with a **Summary of Key Arguments** emerging from each of the 5 Sections, after which the full group will engage in a timed **Open Debate** that will conclude with the prioritization of the ‘**3 Major Themes of Action**’. These Themes will be further developed after the Conference.

Acknowledgments



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