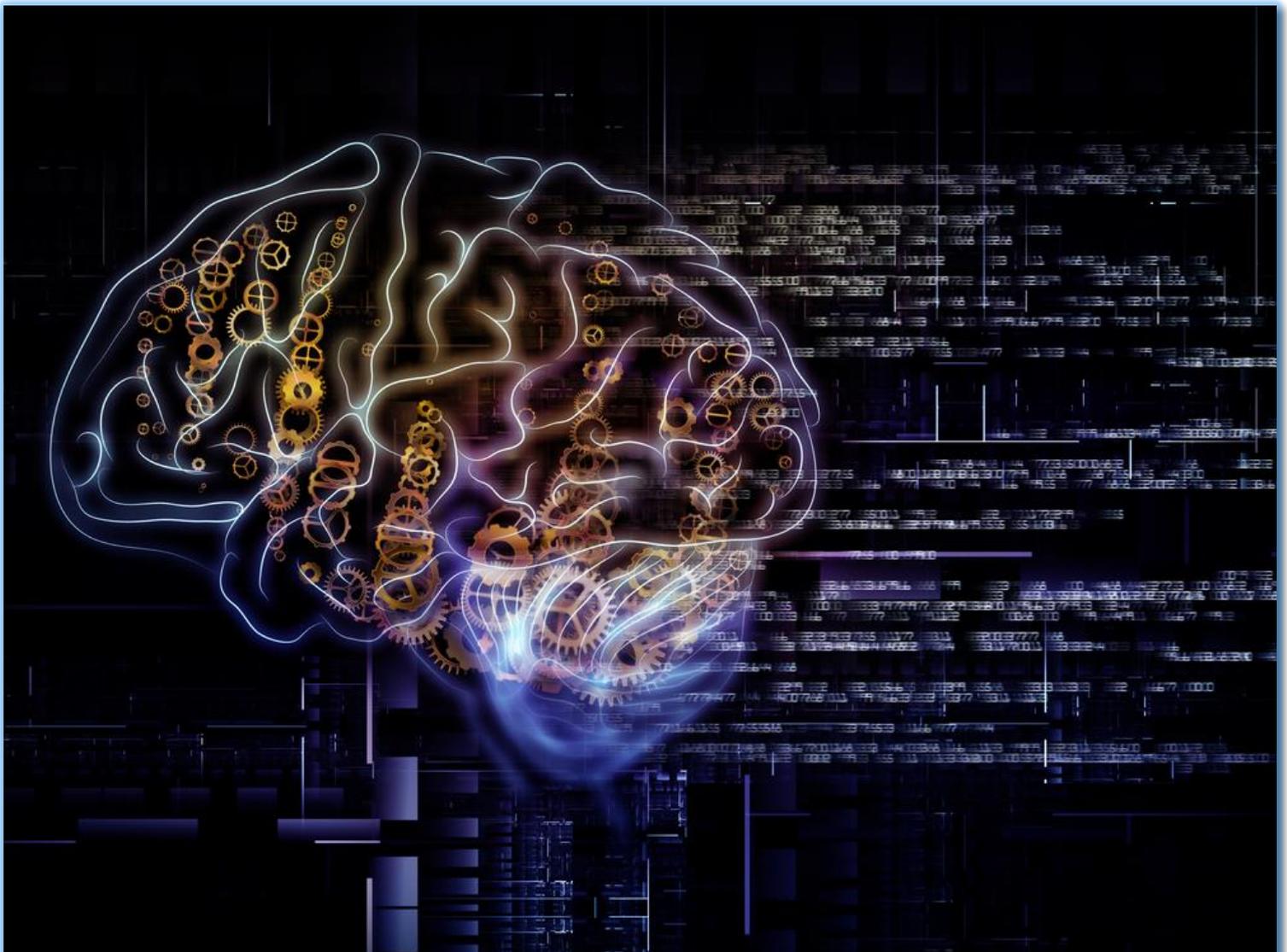


Annual Meeting 2017

Faculty Guide



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Business and Innovation

Sun Baohong

Chair, Professor of Marketing, Cheung Kong Graduate School of Business



Marketing and Social Media

Baohong's research focuses on rational and strategic consumer choices and dynamic structural models, dynamic and interactive marketing mix and customer information management. Her most recent work focuses on modelling dynamic and interdependent consumer decisions on e-commerce and social media platforms.

[Member of the GFC on the Future of Behavioural Sciences](#)

Erik Brynjolfsson

Director, MIT Initiative on the Digital Economy



Digital Revolution, Innovation and Productivity

Brynjolfsson's research examines the effects of information technologies on business strategy, productivity and employment. His recent work focuses on data-driven decision-making, the pricing implications of internet commerce and the role of intangible assets. He also lectures worldwide on technology and strategy and is director and adviser for several technology-intensive firms.

[Member of the GFC on the Future of Education, Gender and Work](#)

Rajesh Chandy

Professor of Marketing, London Business School



Innovation and Marketing

Chandy is an expert in innovation, technology management, emerging markets and marketing strategy. His findings on innovation were described as an unorthodox and bracing set of management principles by Fortune magazine. He has received many awards and recognition for marketing-theory work.

Soumitra Dutta

Dean and Professor of Management, Cornell University



Leadership and Management

Dutta is an authority on the impact of new technology on the business world, especially social media and social networking, and on strategies for driving growth and innovation by embracing the digital economy. He is the co-editor and author respectively of the Global Information Technology Report and the Global Innovation Index. Dutta received MS in computer science, and a PhD in computer science from the University of California at Berkeley. He is also the founder of the eLab at INSEAD where he worked for 23 years.

Geoffrey Garrett

Dean, The Wharton School, University of Pennsylvania

**Management and Politics**

Garrett is an expert in management and private enterprise. He is also recognized as an international political economist and a well-respected commentator on global business, economics and politics in major media outlets, most recently about the US election.

Anil Gupta

Michael Dingman Chair in Strategy, Globalization and Entrepreneurship, University of Maryland

**Strategy, Globalization and Entrepreneurship**

Gupta is a leading expert on strategy, organization, globalization and entrepreneurship. He was ranked by Thinkers50 as one of the world's "most influential living management thinkers," and named by The Economist as one of the world's "superstars" in a cover story on "Innovation in Emerging Economies". He is a columnist and author, and serves on the board of various companies.

[Steward of the System Initiative on Shaping the Future of Consumption](#)

Joichi Ito

Director, Media Lab, Massachusetts Institute of Technology

**Technology Companies**

Ito is a Japanese activist, entrepreneur, venture capitalist and angel investor and was an early-stage investor of many companies. He has received recognition for his role as an entrepreneur focused on internet and technology companies. He was named one of the 25 Most Influential People on the Web, one of the Top 100 Global Thinkers, and received the Lifetime Achievement Award in recognition of his role as one of the world's leading advocates of internet freedom.

Andrew McAfee

Principal Research Scientist, MIT Initiative on the Digital Economy

**Digital Revolution Transforming Employment**

McAfee studies how digital technologies are changing business, the economy, and society. He is the co-founder of the Initiative on the Digital Economy at MIT and has written two case-study books with key concepts from economics, sociology, computer science, consumer psychology and management studies on how leading organizations are bringing the web's novel tools and philosophies inside, and on how the average US worker is being left behind by advances in technology.

[Steward of the System Initiative on Shaping the Future of Education, Gender and Work System Initiative, and Member of the GFC on the Future of Production](#)

Mario Monti

President, Bocconi University

**Competition Policies and EU Integration**

Monti was European Commissioner for the internal market, financial services, taxation and competition, and introduced modernization reforms of EU antitrust and merger control. In collaboration with the US authorities, he led the creation of the International Competition Network. He also introduced EU enforcement on golden shares and other restrictions on capital movements. He has published extensively on monetary, fiscal and competition policies and on European integration.

GULF member

Mark Vernooij

Managing Director, THINK School of Creative Leadership

**Innovation and Entrepreneurship**

Vernooij is passionate about innovation, entrepreneurship, education and solving difficult problems. He helps start-ups and large organizations become more innovative. His entrepreneurial background, his experience as board member and coach of start-ups and experience as innovation and strategy consultant have led him to focus on educational executive programmes, in-company innovation programmes and online innovation (online courses, platforms and tools).

Subramanian Rangan

The Abu Dhabi Crown Prince Court Endowed Chair in Societal Progress, INSEAD

**Corporate Performance**

Rangan's current work explores the evolution of capitalism and in particular how enterprises are reconciling performance with progress. He is directing the AVIRA platform, which focuses on effective top executives and high-performance organizations. His other research explores the non-market strategies of multinational firms. He teaches global strategy and management, multinational enterprises, strategy, management and top leadership.

Don Tapscott

Adjunct Professor of Management, School of Management, University of Toronto

**Collaboration and Impact of Technology**

Tapscott is one of the world's leading authorities on innovation, media and the economic and social impact of technology. He advises businesses and government leaders around the world. In 2013, Thinkers50 ranked Tapscott fourth among the world's most influential management thinkers and he was awarded the Global Solutions Award for launching and leading the Global Solution Networks programme.

Peter Zemsky

Deputy Dean, Strategic
Initiatives and
Innovation, INSEAD

**Corporate Strategy**

Zemsky has taught core strategy courses across MBA, EMBA and executive education programmes. His work covers a range of topics including the sustainability of competitive advantage, disruptive technologies, the choice of generalist versus specialist strategies, and the accumulation of intangible organizational resources. His research has appeared in leading economics and strategy journals.

Economics, Finance and Trade

Richard Baldwin

Professor of
International Economics,
Graduate Institute of
International and
Development Studies



International Trade

Baldwin is an expert in multilateral diplomacy and international negotiation, regional integration, trade policy and law. He is the author of numerous books on international trade, globalization, regionalism and European integration. He was also the founder and editor-in-chief of Vox.

[Steward of the System Initiative on Shaping the Future of International Trade and Investment](#)

Ding Yuan

Vice-President and Dean,
China Europe
International Business
School



International Financial Accounting and Corporate Governance

Ding has been lecturing in financial accounting, financial statement analysis, international accounting and corporate governance in Europe and in China. He has also consulted with, designed and delivered in-company special and open executive education programmes. Ding provides consulting services for many multinationals and Chinese companies in financial communication, corporate governance, cost control system designing, investment and M&A.

Peter Draper

Senior Research Fellow,
Economic Diplomacy
Programme, South
African Institute of
International Affairs



Regional Economic Integration

Draper's research focuses on the trade policy/relations division, economic history and political economy, policy and regulatory analysis with an emphasis on trade and investment policies in Southern African and emerging markets. He has also worked extensively on regional economic integration in Southern and Eastern Africa and free trade agreement negotiations.

[Chair of the GFC on International Trade and Investment](#)

Douglas W. Elmendorf

Dean, Harvard Kennedy
School



American Economy

Elmendorf is an American economist who was Director of the Congressional Budget Office from 2009 to 2015. He was a Brookings Institution senior fellow from 2007 to 2009, and Director of the Hamilton Project at Brookings. He has worked on budget policy, health care issues, the macroeconomic effects of fiscal policy, social security, Medicare, financial markets, macroeconomic analysis and forecasting.

Yves Flueckiger

Rector, University of Geneva

**Labour Economics and Gender Equality**

Flueckiger has studied sociology and economics and is in charge of finance, international relations and strategic planning at the University of Geneva. His research interests include wage inequality and discrimination, gender equality policies, unemployment policies and working conditions in diverse labour markets. He also teaches labour economics, industrial organization and public finance.

GULF member

Ian Goldin

Professor of Globalization and Development, University of Oxford

**Governance, Economics and Development**

Goldin was Vice-President of the World Bank (2003-2006) and the Bank's Director of Development Policy (2001-2003). He led the Bank's collaboration with the United Nations and other partners as well as with key countries. As Director of Development Policy, he played a pivotal role in the research and strategy agenda of the Bank. He was previously Chief Executive and Managing Director of the Development Bank of Southern Africa and served as an adviser to President Nelson Mandela.

Gita Gopinath

Professor of Economics, Harvard University

**Finance and Emerging Markets**

Gopinath's research is on international macroeconomics with a focus on international price-setting, exchange rate pass-through, emerging market business cycles and crisis. Her ground-breaking research helped economists get a better understanding of the financial crisis in Greece and Iceland.

Victor Halberstadt

Professor of Economics, Leiden University

**Public Sector Finance**

Halberstadt was an adviser of the Directorate-General of the National Budget of the Dutch Ministry of Finance. He has held several positions, including Crown Member of the Social-Economic Council (1972-2004), Honorary Secretary-General of the Bilderberg Group (1980-2000), President of the International Institute of Public Finance (1987-1990) and Director of the Concertgebouw (1988-2011). He is also a member of the Board of Directors of the International Centre for Missing and Exploited Children, a global non-profit organization that combats child sexual exploitation, child pornography and child abduction.

Ricardo Hausmann
Director, Center for
International
Development, Harvard
Kennedy School of
Government



Economic Development

Hausmann is a Venezuelan economist who has concentrated his research efforts in the underlying determinants of macroeconomic volatility, financial fragility and crises; and the determinants of long-term growth. He has explored the causes of growth accelerations and collapses, the causes and consequences of original sin, growth diagnostics, the process of structural transformation and the product space, and global imbalances and dark matter.

[Steward of the System Initiative on Shaping the Future of Economic Growth and Social Inclusion](#)

Robert Lawrence
Professor of Trade and
Investment, Harvard
Kennedy School of
Government



Trade Facilitation and International Economic

Lawrence's research focuses on trade policy. He served as a member of the US Council of Economic Advisers and has been a Senior Fellow at the Brookings Institution. He also served on the advisory boards of the Congressional Budget Office, the Overseas Development Council, and the Presidential Commission on United States-Pacific Trade and Investment Policy.

[Steward and System Initiative on the Shaping the Future of International Trade and Investment System Initiative and member of the GFC on International Trade and Investment](#)

Justin Lin
Honorary Dean, National
School of Development,
Peking University



Economic Development and Global Imbalances

Lin's research area covers agricultural economics, development economics, economic reform and the economics of transition in China. He was Chief Economist and Senior Vice-President of the World Bank from 2008 to 2012.

[Member of the GFC on Production](#)

Anandi Mani
Associate Professor of
Behavioural Science and
Public Policy, Blavatnik
School of Government



Behavioural Economics

Mani's research interests are in development economics, with a specific focus on issues related to the behavioural economics of poverty and social exclusion, gender issues and public-good provision. Her recent work has been published in prominent economics journals and has also featured in leading newspapers including the New York Times and the Guardian as well as the BBC.

[Member of the GFC on the Future of Behavioural Sciences](#)

Beth Simone Noveck
Professor and Director,
Governance Lab, Yale
University



Technology and Governance

Noveck focuses her research, teaching and activism on the impact of technology on public institutions and solving public problems. Her lab strives to improve people's lives by changing how we govern. It designs and tests technology, policy and strategies for fostering more open and collaborative approaches to strengthen the ability of people and institutions to work together to solve problems, make decisions, resolve conflict and govern themselves more effectively and legitimately. She was named one of the "Foreign Policy 100" and one of the "Top Women in Technology".

Carmen M. Reinhart
Professor, International
Financial System,
Harvard Kennedy School



Macroeconomics

Reinhart has written and published work on a variety of topics in macroeconomics and international finance including international capital flows, capital controls, inflation and commodity prices, banking and sovereign debt crises, currency crashes, and contagion.

Hélène Rey
Professor of Economics,
London Business School



Financial Imbalances and International Monetary System

Rey's research focuses on the determinants and consequences of external trade and financial imbalances, the theory of financial crises and the organization of the international monetary system. She has been awarded many prestigious prizes and awards.

[Member of the GFC on the Future of Financial and Monetary Systems](#)

Kenneth Rogoff
Professor of Public Policy
and Professor of
Economics, Harvard



International Finance

Rogoff has a strong focus on political economy and macroeconomic themes as well as currencies and international monetary system. He has written on policy issues in international finance, including exchange rates, international debt issues and international monetary policy.

[Steward of the System Initiative on Shaping the Future of Energy](#)

Nouriel Roubini
Professor of Economics
and International
Business, New York
University



World Economy, US Housing Market Collapse and Worldwide Recession

Roubini is an internationally recognized economist. He is also the former Senior Economist for International Affairs of the White House Council of Economic Advisors, as well as the former Senior Adviser to the Undersecretary for International Affairs of the US Treasury Dept. He served as consultant to the International Monetary Fund, the World Bank and other public and private institutions. He is the author of over 70 theoretical empirical and policy papers on international macroeconomic issues.

Xavier Sala-i-Martin

Professor, Economics
Department, Columbia
University

**Macroeconomics**

Sala i Martin is one of the leading economists in the field of economic growth and is consistently ranked among the most-cited economists in the world for works produced in the 1990s. His work includes the topics of economic growth, development in Africa, monetary economics, social security, health and economics, classical-liberal thinking and convergence.

[Steward of the System Initiative on Shaping the Future of Economic Growth and Social Inclusion](#)

Atsushi Seike

President, Keio
University

**Ageing Economics**

Seike is a leading expert in labour economics. He has written extensively on the economics of ageing populations, particularly on raising retirement age and enhancing the productivity of older people.

[GULF member](#)

Environment and Sustainability

Elena Bennett

Associate Professor,
Department of Natural
Resource Sciences,
McGill University



Managing Agricultural Landscapes

Bennett's research focuses on agricultural landscape management for multiple ecosystems, the human impact on the biogeochemical cycle of phosphorus and interactions among ecosystem services, biodiversity and food production. She develops approaches to measure, map and model interconnected ecosystem services to ensure their long-term sustainability. Her work provides practical information and easy-to-use tools to inform governments, industries and communities on the full ecosystem impact of decision implementation.

Tim Benton

Dean for Strategic
Research, University of
Leeds



Global Food Security

Benton is an expert in global food security from a systemic perspective: from production and its impacts on the environment to trade, manufacturing and retail, and impacts on nutrition and health. His specific focus is on making food systems sustainable and resilient in conditions of climate change, to deliver food and nutrition security to all. He has been working with governments, industry and civil society and has researched in the developed and developing world.

[Steward of the System Initiative on Shaping the Future of Food Security and Agriculture](#)

Andrew Gonzalez

Chair in Biodiversity
Science and Director,
Quebec Centre for
Biodiversity Science,
McGill University



Environmental Change Mitigation

Gonzalez's research is broadly focused on the causes and consequences of biodiversity loss and the stability and functioning of ecosystems. The aim is to gain a better understanding of how the impacts of anthropogenic environmental change can be mitigated, with a particular focus on the conservation and restoration of ecological connectivity in human-dominated landscapes. Gonzalez also translates his research into knowledge for biodiversity and ecosystem conservation and policy.

Corinna Hawkes

Professor of Food Policy
and Director, Centre for
Food Policy, City
University London



Food Policies and Health

Hawkes is an expert in food system policies to address poor quality diets and malnutrition worldwide. She focuses on the link between diets and nutrition, policies and processes of globalization, trade and agriculture policies, nutrition labelling and policies on food marketing to children. She is also a Co-Chair of the Independent Expert Group of the Global Nutrition Report, an international report tracking progress in malnutrition in all its forms around the world.

[Chair of the GFC on the Future of Food Security and Agriculture](#)

Jim Leape

Consulting Professor,
Woods Institute for the
Environment, Stanford
University

**Sustainability and Conservation**

Leape looks at how to drive large-scale systemic shifts to sustainability, with particular interest in expanding private-sector leadership on sustainability globally and, specifically, in China. He has 30 years of conservation experience spanning a wide range of conservation efforts on every continent. He was Director General of WWF International where he worked with government, business and civil society leaders on wide range of issues including climate change, forest protection, marine conservation, water resources management, and sustainability in global commodity markets.

[Steward of the System Initiative on Shaping the Future of Environment and Natural Resource Security, and member of the GFC on the Future of Environment and Natural Resource Security](#)

Lin Boqiang

Dean, Institute for
Studies in Energy Policy,
Xiamen University

**Energy Strategy and Nuclear Energy**

Lin was the Principal Energy Economist of the Asian Development Bank and has directed a number of high-level energy policy institutions. He is also a member of the Chinese National Energy Consultation Committee, a member of the Energy Price Consultation Committee, special analyst for China Xinhua News Agency, a guest commentator of China National Radio and a Vice-Chairman of the China Energy Society.

[Steward of the System Initiative on Shaping the Future of Energy](#)

Graham MacDonald

Assistant Professor,
Department of
Geography, McGill
University

**Agricultural and Food Systems**

MacDonald researches the dimensions of agricultural land use and management. His interests are at the intersection of farm management, agricultural production and the socioeconomic factors for food consumption. His current research addresses agricultural commodities trade, and focuses on how agricultural trade influence the distribution of resource use across regions and what is the role of international food trade in meeting dietary demand worldwide. He is interested in urban food systems, including methods to connect demand for food in cities with farming systems at different scales.

[Ideaslab presenter](#)

Douglas McCauley

Marine Biologist and
Assistant Professor

**Ecology of Communities and Ecosystems**

McCauley's research focuses on understanding how community structure influences ecosystem dynamics, in determining how ecosystems are interactively and energetically coupled to one another, and quantifying how humans perturb these dynamics and shape patterns of biodiversity. He uses tools from the disciplines of community ecology, biogeochemistry, spatial analysis, ecological modelling, conservation biology, and anthropology, aiming to generate results that both advance the pure science of ecology and that can be of practical service to decision-makers.

Denise L. Mauzerall

Professor of
Environmental
Engineering and
International Affairs,
Princeton University

**Environment and Health**

Mauzerall's research explores linkages between air pollution, health, energy and climate change. With a Ph.D. in atmospheric chemistry, she was previously a Program Manager at the US Environmental Protection Agency where she worked on the implementation of the Montreal Protocol, the international treaty which protects stratospheric ozone. She sits on the EPA science advisory board, is on the editorial board of the journal Atmospheric Environment and sits on the executive committee of both the Princeton Institute for International and Regional Studies and the Princeton Cooperative Institute for Climate Science.

Ricardo Meléndez-Ortiz

Chief Executive,
International Centre for
Trade and Sustainable
Development

**Sustainable Energy and Environment**

Meléndez-Ortiz is co-convenor of the joint initiative on promotion of sustainable energy, a project of the Global Green Growth Institute, ICTSD, and the Peterson Institute for International Economics. He has represented Colombia as a negotiator in several multilateral fora, including as permanent delegate of Colombia in Geneva and as a negotiator in GATT's Uruguay Round, the Rio'92 UN Conference process, UNCTAD VIII, the Climate Change Convention, the Intergovernmental Panel on Climate Change and the Montreal Protocol. He has also published a wide range of books, articles and opinion pieces on economic governance, trade, sustainable development and conflict management.

[Member of the GFC on the Future of International Trade and Investment](#)

Illah Nourbakhsh

Professor, Robotics
Institute, Carnegie
Mellon University

**Landscape and Environment Data Visualization**

Nourbakhsh explores human-robot interaction with the aim of creating rich, effective and satisfying interactions between humans and robots. He is also the Head of the CREATE Lab which explores socially meaningful innovation and deployment of robotic technologies. It aims to empower everyday citizens and scientists with affordable environmental sensing and documentation instruments, and powerful visualization platforms for sense-making and sharing of gathered scientific data to promote evidence-based decision-making, public discourse and action. He is a key contributor of the Earth time-lapse project.

[Member of the GFC on the Future of Artificial Intelligence and Robotics](#)

Michael Oppenheimer

Professor of Geosciences
and International Affairs,
Princeton University

**Ocean and Climate Change**

Oppenheimer's research focuses on the natural science and policy aspects of climate change and its impacts, especially sea level rise and its causes and consequences. He is a long-time participant in the IPCC, serves on the US National Academies Board on Energy and Environmental Systems and the New York City Climate Change Panel, and is a science advisor to the Environmental Defense Fund.

Pan Jiahua

Director, Institute for Urban and Environmental Studies, Chinese Academy of Social Sciences (CASS)

**Climate Change and Sustainable Development**

Pan is an expert in the economics of sustainable development, energy and climate policy, and environmental and natural resource economics. He is a member of a number of committees on climate change and a former adviser on environment and development for the UNDP. He is also the author of over 300 papers, articles and books in English and Chinese.

Johan Rockström

Executive Director, Stockholm Resilience Centre

**Resource Management, Climate Science and Adaptation**

Rockström is a researcher on global sustainability and freshwater resources. He has a broad experience in applied research on water and agricultural development in Africa. He is also worked on an international transition process to develop a new global initiative on earth system research for global sustainability. He is the recipient of the Swede of the year award for his work on communicating on climate science to decision-makers.

[Steward of the System Initiative on Shaping the Future of Environment and Natural Resource Security](#)

Randy Sargent

Senior Systems Scientist, Carnegie Mellon University

**Large Datasets and Complex Systems, Air and Water Quality and Personal Health**

Sargent researches for the Explorables project, developing ways to interactively explore and understand large datasets and complex systems, including air and water quality, personal health, and employment and economic trends. As Visiting Scientist in Google's Earth Engine team, Randy also helps research and develop time-lapse explorable maps. Previously, Sargent helped develop planetary rover software in NASA Ames's Intelligent Robotics Group.

Andrew Steer

President and Chief Executive Officer, World Resources Institute

**Economic Development and Environment**

Steer is in charge of a network of 450 experts who work closely with leaders to address six urgent global challenges at the intersection of economic development and the natural environment: food, forests, water, climate, energy and cities. He has a long-standing career in climate change, international development, sustainable energy and sustainable development.

[Steward of the System Initiative on Shaping the Future of Environment and Natural Resource Security](#)

Achim Steiner

Director, Oxford Martin School, University of Oxford

**Sustainable Development**

Steiner trained as a development economist, which led him into the broader arena of sustainable development, international relations and global diplomacy. He helped to position UNEP as a central global player on issues such as climate change, technology innovation, ecosystems management and the role of markets and the private sector in sustainable development. He also led UNEP towards fostering more effective global environmental cooperation and governance and pioneered a number of new major initiatives linking economic and environmental transitions such as on the green economy, finance, energy, and resource management.

[Steward of the System Initiative on Shaping the Future of Environment and Natural Resource Security](#)

Frances Seymour

Senior Fellow, Center for Global Development

**Forest and Climate**

Seymour is an expert in forest policy, tropical forests, climate change, agroforestry and development finance. She spent her career working on environmental initiatives with a special focus on forests, and leading research and outreach focused on mainstreaming environmental considerations into development finance. She is now co-authoring a book to promote the importance of forest conservation and results-based financing for REDD+.

Nicholas Stern

President, The British Academy

**Environment and Climate Change Policies and Economics**

Stern is a leading British economist and academic. He is Chairman of the Grantham Research Institute on Climate Change. He has also taught and researched economics and government at universities around the world. He has made a major contribution to the economics of public policy and to development economics and has served as adviser to governments, businesses and NGOs in many countries and as Second Permanent Secretary of the UK Treasury.

[Steward of the System Initiative on Shaping the Future of Environment and Natural Resource Security](#)

David G. Victor

Professor, University of California, San Diego

**Energy Regulation**

Victor's research focuses on how the design of regulatory law affects issues such as environmental pollution and the operation of major energy markets. His focus is on the future role of natural gas, electric power market reform and rural energy development as well as genetically modified foods and plants and related trade policy, forest and climate change policy, the role of technology, and innovation and competition in development. He has also built a research programme that focuses on the energy markets of the major emerging countries.

[Member of the GFC on Future of Energy](#)

Geopolitics and International Security

John Chipman

Director-General & CEO,
The International
Institute for Strategic
Studies



International Diplomacy and Political Risk

Chipman is Special Adviser to the Chairman of Reliance Industries (Mumbai) and a member of the Board of Directors of private equity firm The Abraaj Group (Dubai). He speaks regularly to business audiences on political risk, regional security and global trends. He is the author of two books and numerous articles and opinion pieces. He also served as. He has directed IISS' growth globally as the world's premier institute providing facts and analysis on international security issues and has developed its role as a convenor of vital inter-governmental summits.

[Member of the GFC on the Future of International Security](#)

Alan D. Cohn

Adjunct Professor,
Georgetown University
Law Center



Technology and Security

Cohn focuses on cybersecurity, emerging technologies such as blockchain and distributed ledger technology, and national security issues. From 2006 to 2015 Cohn served in senior policy and management positions at the US Department of Homeland Security, most recently serving concurrently as Assistant Secretary overseeing strategy and strategic risk assessment, and second-in-charge of the overall DHS Office of Policy. He also serves as counsel to the Blockchain Alliance, an organization that creates a forum for law enforcement and regulatory agencies to engage with bitcoin and blockchain companies.

[Chair of the GFC on Cybersecurity](#)

Christopher L. Eisgruber

President, Princeton
University



Law and Public Affairs

Eisgruber joined Princeton in 2001, as the director of the Program in Law and Public Affairs and Professor of Public Affairs, after teaching at New York University's School of Law for 11 years. He has written and edited several books and published numerous articles on constitutional issues, but also testified multiple times before legislative bodies on religious freedom.

[GULF member](#)

Lawrence Freedman

Emeritus Professor of
War Studies, Kings
College



Cold War and Strategic Affairs

Freedman has written extensively on nuclear strategy and the Cold War and is a regular commentator on contemporary security issues. His most recent books include topics such as revolution in strategic affairs, strategic coercion, British defence policy and major crises of the early 1960s over Berlin, Cuba and Vietnam. He is interested in the role of the armed forces in contemporary international affairs, contemporary history, including the Cold War and nuclear strategy and strategic theory.

Frederick Kempe

President and Chief Executive Officer, The Atlantic Council

**Foreign Policy**

Kempe has achieved significant growth for the Council while considerably expanding its work and influence in areas that include international security, business and economics, energy and environment and global issues of transatlantic interest ranging from Asia to Africa. He is also an award-winning journalist, best-selling author, columnist and a regular commentator on television and radio both in Europe and the United States

Lee Geun

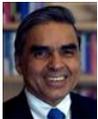
Vice-President and Dean, Office of International Affairs, Seoul National University

**Korean Foreign Affairs**

Lee teaches international relations and is an expert in foreign affairs, political science and security. He has been advising the South Korean government as Professor in the Institute of Foreign Affairs and National Security of the Ministry of Foreign Affairs and Trade and as Member of the National Security Council. He also publishes on Korea's relations with Asia and the West.

Kishore Mahbubani

Dean, Lee Kuan Yew School of Public Policy, National University of Singapore

**International Relations**

Mahbubani studied philosophy and history and enjoyed a career in government as a member of the Singapore Foreign Service. He also writes on public issues, in particular on the relationship between Asia and the world. He now teaches in public policy and continues to serve on the boards and councils of several institutions in Singapore, Europe and North America.

Robert Muggah

Research Director, Igarapé Institute

**Urban Development**

Muggah is a political economist focused on security and development in urban spaces. He co-founded the Igarapé Institute, a think and do tank devoted to using new technologies to tackle global challenges. He is also co-founder of the SecDev Foundation, a cyber-analytics group, and oversees projects in Latin America, Africa and Asia. In addition to advising various UN agencies, the IADB, and the World Bank, Muggah is a fellow at the University of Oxford and the Graduate Institute in Geneva. In 2013, he was named one of the top 100 most influential people working on violence. His research and data visualizations on homicide, arms and cities have been featured in a number of major media.

[Member of the GFC on the Future of Cities and Urbanization](#)

Moisés Naím

Distinguished Fellow,
Carnegie Endowment for
International Peace

**Geopolitics and Economics**

Naím is an internationally syndicated columnist and best-selling author of books on how power is changing across all sectors of society, and exposed on modern criminal networks. He gained international recognition with the successful re-launch of the prominent journal Foreign Policy and, over his fourteen years as editor, turned the magazine into a modern, award-winning publication on global politics and economics. His prize-winning work is highly influential in international politics, economics and business.

Robin Niblett

Director, Chatham House

**Transatlantic Relations and European Governance and Integration**

Niblett was the Executive Vice-President and Chief Operating Officer of the Center for Strategic and International Studies (CSIS). He also served as Director of the CSIS Europe Program and its Initiative for a Renewed Transatlantic Partnership. He has testified on a number of occasions to the House of Commons Defence Select Committee and Foreign Affairs Committee, as well as the US Senate and House of Representatives Committees on European Affairs. He received his BA, MPhil and DPhil from New College, Oxford.

[Member of the GFC on the Future of International Security](#)

Mark Pieth

Chairman of the Board,
Basel Institute on
Governance

**Corruption and Organized Crime**

Pieth is an expert in the fields of economic and organized crime, money laundering, corruption, sentencing and criminal procedure. Pieth has had an extensive career in advising government and international organizations as well as arbitration cases. He is also a co-founder of the Partnering Against Corruption Initiative (PACI).

Louise Richardson

Vice-Chancellor,
University of Oxford

**Terrorism and International Security**

Richardson's academic focus has been on international security with an emphasis on terrorist movements, as well as American and comparative foreign policy. She taught Harvard's large undergraduate lecture course, Terrorist Movements in International Relations, as well as a number of graduate courses on terrorist movements and European terrorism. She has given over 300 talks and lectures on terrorism and counter-terrorism to educational and private groups as well as policy makers, the military, intelligence, and business communities.

[GULF member](#)

Daniel Shapiro

Founder and Director,
Harvard International
Negotiation Program,
Harvard University

**Psychology of Conflict and Negotiations**

Shapiro's research focuses on the psychology of conflict. He has contributed to numerous scholarly and popular publications and co-authored the bestseller "Beyond Reason: Using Emotions as You Negotiate". Shapiro is pioneering a new research programme on the emotional and identity-based dimensions of international conflict resolution and negotiation. He trains from business executives to key negotiators in the Middle East, China, the former Yugoslavia and elsewhere, and has developed a conflict management and peer counselling programme that now reaches over a million people across 30 countries.

Ngairé Woods

Dean, Blavatnik School of
Government, University
of Oxford

**Government, International Relations and Trade**

Woods' research focuses on global economic governance, the challenges of globalization, global development and the role of international institutions. She founded and is the Director of the Global Economic Governance Programme. She is the co-founder of the Oxford-Princeton Global Leaders Fellowship programme.

[Member of the GFC on the Future of Technology, Values and Policy](#)

Human Development

Julia Andrea R. Abad

Executive Director, Far Eastern University Public Policy Center



Youth Empowerment and Inclusiveness

Abad is passionate about getting young people involved in public service and has been working for the government of the Philippines as well as an educator, lecturing in political science and helping to develop a citizenship curriculum for young children. She has also worked in the non-profit sector as a researcher and communications specialist. She is an adviser at Investing in Women Asia, which seeks to promote inclusiveness in the workplace around the region.

Iris Bohnet

Director, Women and Public Policy Program, Harvard Kennedy School



Behavioural Economics

Bohnet is a behavioural economist combining insights from economics and psychology. Her research focuses on questions of trust and decision-making, often with a gender or cross-cultural perspective. She teaches decision-making, negotiation and gender in public policy and leadership in degree and executive programmes, and has been engaged in the teaching, training and consulting of private and public sector leaders in the United States, Europe, India and the Middle East.

[Chair of the GFC on the Future of Behavioural Sciences](#)

John J. DeGioia

President, Georgetown University



Education Leadership

DeGioia is a Professorial Lecturer in the Department of Philosophy. He has held a variety of senior administrative positions at Georgetown, including Senior Vice-President and Dean of student affairs. He has been presented with a Lifetime Achievement Award for Excellence in Academia by the Sons of Italy, and the Catholic in the Public Square Award by Commonweal. He was also named a Brave Thinker by The Atlantic magazine and a Washingtonian of the Year by Washingtonian magazine.

Tracy Fullerton

Game Designer and Professor, University of Southern California School of Cinematic Arts



Game design

Fullerton is an American game designer, educator and writer. Her research centre, the Game Innovation Lab, has produced several influential independent games, including Cloud, fLOW, Darfur is Dying, and The Night Journey, with artist Bill Viola. She is the author of Game Design Workshop, a textbook advocating a play-centric design process. Her current game project, [®]Walden, a game[®], is supported by a media arts grant from the National Endowment for the Arts, one of the first video game projects to be awarded such a grant.

William W. George
Senior Fellow, Harvard
Business School



Leadership Development

George teaches and has completed his research study on leadership development, based on in-person, in-depth interviews with 125 business and non-profit leaders, over half of whom are chief executive officers. Continuing his research on leadership development, he has developed a series of leadership exercises for individuals and groups. These exercises can be used in academic courses for undergraduates, graduate students, and executive education as well as in corporate education and training sessions.

Lynda Gratton
Professor of Management
Practice, London Business
School



Organizational Theory

Gratton is an organizational theorist, consultant and is best known for her work on organizational behaviour. Over the past 20 years she has written extensively about the interface between people and organizations. Her eight books cover the link between business and HR strategy, the rise of complex collaboration and the impact of a changing world on employment and work. In 2016 she launched *The 100-Year Life: Living and Working in an Age of Longevity*.

[Member of the GFC on the Future of Education, Gender and Work](#)

Linda A. Hill
Professor of Business
Administration, Harvard
Business School



Organizational Behaviour and Leadership

Hill's consulting and executive education activities have been in the areas of managing change, managing cross-organizational relationships, globalization, career management, and leadership development. Hill is currently working on two projects: leading in emerging markets and leadership as collective genius in which she explores the relationship between leadership, agility, and innovation.

Lin Kobayashi
Chair of the Board,
International School of
Asia (ISAK)



Education and Impact

Kobayashi is passionate about education and co-founded ISAK which aims to bring together top students from around the world to develop leaders who are eager to work for positive change in their countries and communities. She also worked at UNICEF where she worked to programme non-formal education projects for street children.

Johanna Mair
Professor of
Organization, Strategy
and Leadership, Hertie
School of Governance



Organizational Strategies for development

Mair's research focuses on how novel organizational and institutional arrangements generate economic and social development and the role of innovation in this process. She is the co-editor of three books and has been published in leading academic journals. Her current projects include developing an organizational capacity for continuous innovation in social sector organizations, social change and mobilization strategies in rural India and governance challenges in socio-economic hybrids.

Randall Peterson

Professor and Chair of
Organisational
Behaviour, London
Business School

**Leadership and Team Management**

Peterson's current research activities include management of diverse teams, leadership transitions in organizations, conflict management in teams, effects of member personality on group interaction and performance, high-performance teams, leadership assessment, and interpersonal skill development. He teaches an accelerated leadership programme for transition into general management in a number of international companies.

Gianpiero Petriglieri

Associate Professor of
Organizational
Behaviour, INSEAD

**Mindful, Effective and Responsible leadership**

Petriglieri's research explores how and where people develop and sustain the personal foundations and professional abilities to exercise leadership mindfully, effectively and responsibly. His academic interests bridge the domains of leadership, team dynamics, identity, personal and professional development and change, coaching and group facilitation, and experiential learning. He also consults and speaks widely on how to develop and exercise leadership in fast-changing, uncertain and diverse workplaces

Michael H. Posner

Co-Director, Center for
Business and Human
Rights, NYU Stern School
of Business

**Corporate Social Responsibility and Human Rights**

Posner is a recognized leader and expert in advancing a rights-based approach to national security, challenging the practice of torture, combating discrimination, and refugee protection. Throughout his career, Posner has been a prominent voice in support of human rights protections in global business operations in the manufacturing supply chain, the extractives industry, and the information and communications technology sector. He is now working on the launch of the first-ever centre on business and human rights at a business school. Prior to joining NYU Stern, Posner served in the Obama Administration as Assistant Secretary of State for the Bureau of Democracy, Human Rights and Labor at the State Department.

[Member of the GFC on the Future of Human Rights](#)

Andrea Schenker-Wicki

President, University of
Basel

**Higher Education**

Schenker-Wicki studied Food Engineering, Business Administration, Operations Research and Information Technology as well as Academic Performance before starting her career in higher education. She was Professor of Business Administration and Vice-President for Law and Economics before becoming University President.

James Valentini

Dean, Columbia College
and Vice-President,
Undergraduate
Education, Columbia
University

**Higher Education**

Valentini is responsible for strategic planning at Columbia College. His central focus is to support and develop the College so that students and faculty have the best possible experience. With a chemistry background, he previously served as Chair of the Chemistry Department and Director of the Chemistry Undergraduate Studies Program, and was a member of committees on faculty governance, diversity and tenure.

Life Science and Medicine

David B. Agus

Professor of Medicine and Engineering, USC Center for Applied Molecular Medicine



Oncology

Agus is the founder of Oncology.com, the largest cancer internet resource and community, as well as Navigenics, a consumer-targeted healthcare technology and wellness company. His research has focused on application of proteomics and genomics for study of cancer and development of new therapeutics for cancer. He also develops clinical trials of new drugs for treatment of patients with cancer and is the recipient of numerous awards.

[Steward of System Initiative on Shaping the Future of Health and Healthcare](#)

Bahador Bahrami

Senior Research Associate, Institute of Cognitive Neuroscience, UCL



Neurobiological Basis of Decision-Making

Bahrami investigates the cognitive and neurobiological basis of success and failure in collective decision-making as humans interact with each other to share information and make collective decisions. He uses behavioural, neuroimaging and psychopharmacology techniques to look into what kind of information individuals communicate to one another when making joint decisions, what kind of decision rules are applied to the communicated information, how people learn to cooperate with each other and what are the biological and neuronal factors that contribute to the success and failure of collaboration.

[Ideaslab presenter](#)

Emily Banks

Professor of Epidemiology and Public Health, Australian National University



Epidemiology and Public Health

Banks is a public health physician and epidemiologist with interest and expertise in large-scale cohort studies, pharmacoepidemiology, women's health, aboriginal health and healthy ageing. The main emphasis of her work has been in using cohort study methodology to identify potentially modifiable factors affecting individual and population health in different settings and in quantifying their effects, to inform improvements in health and healthcare. Banks is the recipient of many awards and prizes.

Leszek Borysiewicz

Vice-Chancellor, University of Cambridge



Immunology

Borysiewicz's research focuses on viral immunology, infectious disease, and viral-induced cancer. He has co-authored and co-edited a number of books on these subjects, including Vaccinations. He retains a stated passion for global health, interdisciplinary research and communicating his own enthusiasm for science and scholarship as a whole to the public, in particular the young, and has pursued a career in academic medicine at the University of Wales and the University of Cambridge.

[GULF member](#)

Ilana Brito

Assistant Professor,
Biomedical Engineering,
Cornell University

**Human Microbiome**

Brito uses systems biology approaches to study the transmission of bacterial and genetic components of the human microbiome. Given her long-standing interest in infectious disease, she studied the transmission of viral pathogens and emerging infectious disease as well as the transmission of the multitude of bacteria inhabiting the human body for which she launched a large field research project in Fiji. She also developed methods to examine signatures of transmission in metagenomic whole genome shotgun sequencing data.

Daniel Buckley

Professor, Cornell
University

**Microbial Ecology**

Buckley's research makes use of genomic tools to examine the microbial communities that live in soils, to explore their diversity and to delineate the mechanisms by which they influence environmental processes in terrestrial ecosystems.

Francis S. Collins

Director, National
Institutes of Health

**Biomedical Research Leadership**

Collins oversees the work of the largest supporter of biomedical research in the world, spanning the spectrum from basic to clinical research. He is a physician-geneticist noted for his landmark discoveries of disease genes and his leadership of the international Human Genome Project, which culminated with the completion of a finished sequence of the human DNA instruction book.

David Cox

Assistant Professor,
Molecular and Cellular
Biology and Computer
Science, Harvard

**Brain Processing**

Cox's research spans neuroscience and computer science, with the goal of understanding how brains process sensory information. He employs a variety of experimental techniques to measure brain function and uses this biological information to build advanced machine learning algorithms. Cox is also actively engaged in innovation in online learning, particularly at the intersection of machine intelligence and education.

Jennifer Doudna

Professor of Chemistry
and of Molecular and Cell
Biology, University of
California, Berkeley

**Biomedicine and Genetics**

Doudna's research seeks to understand how RNA molecules control the expression of genetic information. Her initial work to solve large RNA structures led to further structural studies on the HDV ribozyme, the IRES, and protein-RNA complexes. Her lab now focuses on obtaining a mechanistic understanding of biological processes involving RNA. In 2012, Doudna and her colleagues generated a new discovery that would reduce the time and work needed to edit genomic DNA. The protein involved attacks its prey, the DNA of viruses and slices it up.

Angela Douglas
Professor of Insect
Physiology and
Toxicology, Cornell
University



Animal-Microbial Symbioses and Nutritional Physiology

Douglas investigates the interactions between animals and beneficial microbes as a biomedical model for human health and a novel target for insect pest control. Her research focuses on the composition of insects' gut microbiota and how the presence and composition of the microbiota interacts with the nutritional condition and immunological function of insects, which is a valuable model for mammalian-gut microbe interactions.

Victor Dzau
President, National
Academy of Medicine



Global Healthcare Innovation

Dzau is highly regarded as a trailblazer in translational research, health innovation, and global healthcare strategy and delivery. He was the guiding force in establishing several medicine and health institutions at Duke. His research focused on the treatment of high blood pressure and congestive heart failure. He pioneered gene therapy for vascular disease and strives to advance innovation and to translate research into diagnostic methods, medicines, and creative solutions for human health issues.

[Steward of the System Initiative on Shaping the Future of Health and Healthcare, and member of the GFC on the Future of Health and Healthcare](#)

Adam Feinberg
Professor, Carnegie
Mellon University



Biomaterials

Feinberg's research focuses on regenerative biomaterials and therapeutics. He has been working on the development of new biomaterials and cardiac tissue engineering strategies for three-dimensional myocardial regeneration, with a focus on stem cell-based approaches.

[Ideaslab presenter](#)

Linda P. Fried
Dean, School of Public
Health, Columbia
University



Healthy Ageing

Fried is a leader in the fields of epidemiology and geriatrics who has dedicated her career to the science of healthy ageing and creating the basis for a transition to a world where greater longevity benefits people of all ages. An internationally renowned scientist, she has done seminal work in defining frailty as a medical condition, illuminating its causes and the potential for prevention as keys to optimizing health for older adults.

[Chair of the GFC on the Future of Human Enhancement](#)

Carola Garcia de Vinuesa

Head, Department of Immunology and Infectious Disease, Australian National University

**Cellular Immunology and Immunogenetics**

Vinuesa's work led to the discovery of genes important for immune regulation and memory and the identification of a novel pathway of post-transcriptional control of gene expression to prevent autoimmunity. Her group identified a critical role for follicular helper T-cells in autoantibody-mediated autoimmune diseases and contributed to the characterization of this subset and elucidation of their transcriptional regulation. She is currently investigating the mechanisms that regulate Tfh cells and germinal centre selection.

Atul Gawande

Professor of Surgery, Harvard Medical School

**Public Health and surgery**

Gawande is a surgeon, professor, best-selling author, writer and public health researcher. He practises general and endocrine surgery, is Executive Director of the Ariadne Labs, a joint centre for health systems innovation, and Chairman of Lifebox, a non-profit that works on reducing deaths in surgery globally. He has written extensively on medicine and public health.

Andre Goy

Chairman and Director, John Theurer Cancer Center, Hackensack University Medical Center

**Lymphoma Treatment**

Goy is a clinician and researcher known for his work showing the first evidence of activity of bortezomib (Velcade) in mantle cell lymphoma, which led to the FDA's approval of bortezomib for relapsed/refractory mantle cell lymphoma. His also took part in the original pilot study for rituximab (Rituxan), which has been widely used to treat lymphomas, leukaemias, and autoimmune disorders. He has authored more than 100 peer-reviewed articles for scientific journals, has contributed to a number of books, chapters and review articles and has had close to 200 abstracts accepted.

[Chair of the GFC on the Future of Health and Healthcare](#)

Michael Hengartner

President, University of Zurich

**Biology**

Hengartner's research focuses on understanding basic biological processes and more specifically on germ cell death, DNA damage, neurobiology, microbial glycobiology and systems biology. He is the recipient of several awards for his groundbreaking research on the molecular basis of apoptosis, including the Swiss National Latsis Prize.

[GULF member](#)

Katharina Hauck
Senior Lecturer in Health
Economics, Imperial
College London



Health economics

Hauck has research interests in empirical health economics, the quantitative evaluation of health policy, and the economics of infectious diseases. She is currently working on the economics of HIV/AIDS, infections and medical errors in hospitals, individual behaviour in disease transmission models, demand for hospital care during pandemics, and the social determinants of health, among others. She teaches introductory econometrics, economic evaluation, economics of infectious disease, health system performance, and healthcare financing across various undergraduate and postgraduate programmes.

Thomas Kariuki
Director, African
Academy of Sciences



Immunology

Kariuki's research interests are on the immunology of infectious diseases, co-infections and the influence of worm infections on vaccination outcomes. He has published extensively on vaccines and diagnostics development for schistosomiasis, malaria and co-infections. He is a recipient of various awards and a member of various professional organizations such as IUIS, FAIS, and AAS.

Lee Sang-Yup
Distinguished Professor
and Director, Korea
Advanced Institute of
Science and Technology



Biotechnology and Microbiology

Lee has extensive experience in science leadership, having also published more than 340 journal papers, 50 books/book chapters. His research interests are metabolic engineering, systems biology and biotechnology, synthetic biology, industrial biotechnology and biorefinery, and nanobiotechnology. He received numerous awards, including the National Order of Merit, Citation Classic Award, Elmer Gaden Award from Biotechnology and Bioengineering, Merck Metabolic Engineering Award, and more recently the 2010 Fellow Award from the Society for Industrial Microbiology.

[Chair of the GFC on the Future of Biotechnologies](#)

Kamalini Lokuge
Senior Research Fellow,
College of Medicine,
Biology and the
Environment, Australian
National University



Health for Humanitarian Crises

Lokuge is an expert in public health responses to humanitarian crises. She has provided medical care and epidemiological services for the past two decades in a range of humanitarian emergencies around the world, which gave her a unique perspective on implementation research priorities in such settings. She applies these learnings to traditional research activities to inform an evidence base and achieve better outcomes for those living in vulnerable circumstances. Her Humanitarian Research Program also places attention on building sustainable capacity for responding to existing and future humanitarian challenges.

[Ideaslab presenter](#)

Peter William Mathieson

President and Vice-Chancellor, University of Hong Kong

**Health and Education**

Mathieson is a teacher, clinician, medical researcher and academic leader. He is also a distinguished nephrologist with a clinical interest in autoimmune renal diseases, and has rich experience in developing research and innovation strategies. He is the official Asia regional university representative for the HeforShe campaign and is passionate about ensuring gender parity in academic leadership positions.

Iris Mauss

Associate Professor, Department of Psychology, University of California, Berkeley

**Emotion Regulation**

Mauss' research focuses on emotions and emotion regulation, with an emphasis on their links to psychological health. In her research, she uses measures of emotion experience, behaviour, and physiological responding, and combines laboratory, daily-diary, and longitudinal survey approaches. She is the Director of the Emotion and Emotion Regulation Lab at Berkeley and teaches social and personality psychology.

Marion Nestle

Professor, New York University

**Nutrition and the Food Industry**

Nestle trained in biochemistry and developmental biology and realized that there was no standardized nutritional requirement. She has been raising public awareness about food and its role in culture, society and personal nutrition. Her research examines scientific and socioeconomic influences on food choice, obesity, and food safety, emphasizing the role of food marketing. She has written extensively about the issue and became a national influencer on food policy, nutrition and food education.

Dean Ornish

Founder, President and Director, Preventive Medicine Research Institute

**Health and Lifestyle**

Ornish has been directing clinical research demonstrating that comprehensive lifestyle changes may begin to reverse even severe coronary heart disease, without drugs or surgery. His first randomized controlled trial demonstrated that lifestyle changes may slow, stop or reverse the progression of early-stage prostate cancer. His current research showed that these changes affect gene expression, "turning on" disease-preventing genes and "turning off" genes that promote cancer and heart disease, and that they may begin to reverse ageing by lengthening telomeres, the ends of chromosomes that control ageing.

Peter Piot

Director and Professor of Global Health, London School of Hygiene and Tropical Medicine

**Epidemiology**

Piot's main research areas have been on clinical, microbiological, epidemiological, and public health aspects of sexually transmitted diseases, AIDS, tuberculosis, and women's health in Africa, and, more recently, on the politics of AIDS and global health, including chronic diseases. He is a global health scientist and policy leader.

[Steward of the System Initiative on Shaping the Future of Health and Healthcare](#)

Peter Salovey

President, Yale University

**Emotional Intelligence and Health Psychology**

Salovey's research is emotional intelligence, arguing that people have widely ranging abilities pertaining to emotional control, reasoning, and perceptivity. Salovey contended that emotion could motivate productive outcomes when properly directed. He thus developed models and tests of emotional intelligence. His second vein of research is in health psychology, where he has investigated the efficacy of health messaging in promoting HIV risk reduction, early cancer detection, and smoking cessation.

[GULF member](#)

Tali Sharot

Director, Affective Brain Lab, Department of Experimental Psychology, UCL

**Decision-Making, Memories and Emotions**

Sharot's lab investigates how motivation and emotion determine our expectations of the future, our everyday decisions, our memories and our ability to learn. By understanding the brain mechanisms that mediate these effects, she aims to identify ways to encourage behavioural change that enhance well-being. Sharot is interested in understanding when and how people influence our decisions and judgements, why we process information in a biased manner, when, how and why people deceive themselves and how these processes go awry in depression.

Tan Chorh Chuan

President, National University of Singapore

**Nephrology**

Tan has had a long career in medical career as a renal physician. He joined NUS in 1987 and has since occupied many positions, from senior consultant to Professor of Medicine to Head of Department. He is a key leader in Singapore's Biomedical Sciences Initiative since its inception in 2000, for which he was awarded the National Science and Technology Medal in 2008.

[Member of the GFC on the Future of Production and GULF member](#)

Charis Thompson
Chair, Gender and
Women's Studies,
University of California,
Berkeley



Ethics and Reproduction

Thompson researches science elites, democracy, and inequality. She has focused on feminist theory, science and technology studies, reproductive and genetic technologies, personalized medicine, transnational and comparative studies of reproduction, population, biodiversity and environment. She teaches gender, race, and nation and health, the foundations of American cyber-cultures, environmental ethics, bodies and boundaries, gender and science, medicine as identity, expertise, and governance, and mixed and ethnographic research methods.

[Member of the GFC on the Future of Technology, Values and Policy](#)

Eric Vilain
Professor of Human
Genetics, Gender-Based
Biology, School of
Medicine, UCLA



Gender-Based Research

Vilain's research covers genetics, gender-based biology, epigenetics and policy-making. He is passionate about interdisciplinary studies and societal dilemmas stemming from latest science, sports and eligibility, gender and difference in medical condition. He studies whether gender identity is shaped by biology or lifestyle, what influences gender identity and behaviour, and how epigenetic data influences policies.

Eugene Washington
Chancellor for Health
Affairs, Duke University



Health Policy

Washington is an internationally renowned clinical investigator and health-policy scholar. He has been assessing medical technologies, translating research into health policy and shaping healthcare practice. He helped spearhead efforts to change clinical practice and policy guidelines for prenatal genetics, cervical cancer screening and prevention, and reproduction-related infections. He also has been a thought leader in calling for academic health systems to reconfigure broadly and to assume the lead in creating new models for research, education, clinical care and community engagement.

Feng Zhang
Core Member, Broad
Institute of MIT and
Harvard



Genomics

Zhang co-invented a set of technologies for dissecting the functional organization of brain circuits. He is now working on developing and applying disruptive technologies, including optogenetics and genome engineering (TALEs and CRISPR) to understand nervous system function and disease.

[Chair of the GFC on the Future of Biotechnologies](#)

Physical Science and Technology

Mary C. Boyce

Dean of Engineering, The Fu Foundation School of Engineering and Applied Science, Columbia University



Materials and Engineering Education

Boyce leads the education and research mission of Columbia Engineering and is a strong advocate for enabling interdisciplinary research collaborations. Her own research focuses on materials and mechanics, particularly in the multiscale and nonlinear mechanics of polymers and soft composites, both those that are man-made and those formed naturally. Her leadership in the field has expanded understanding of the interplay between micro-geometry and the inherent physical behaviour of a material, which has led to innovative hybrid material designs with novel properties.

Vladimir Bulovic

Associate Dean for Innovation and Professor of Emerging Technology, MIT



Nanofabrication

Bulovic's research interests focus on the physical properties of organic and inorganic nanocrystal composite thin films and structures, and the development of novel nanostructured optoelectronic devices. He joined MIT and established the Organic and Nanostructured Electronics Laboratory where he oversees a broad portfolio of efforts to support innovation and entrepreneurship. He is also leading the design and construction of MIT's new nanofabrication, nanocharacterization, and prototyping facility.

Emily Carter

Dean, School of Engineering and Applied Science, Princeton University



Applied and Computational Mathematics

Carter is a theorist/computational scientist known for her research combining quantum chemistry with molecular dynamics and kinetic simulations, especially as applied to etching and growth of silicon. She was a pioneer in quantum-based multiscale simulations of materials that eliminate macroscopic empirical constitutive laws and that led to new insights such as shock Hugoniot behavior of iron and stress-corrosion cracking of steel.

Justine Cassell

Associate Vice-Provost, Technology Strategy and Impact, Carnegie Mellon University



Human Computer Interaction

Cassell developed the Embodied Conversational Agent – a virtual human capable of understanding and responding with both language and non-verbal behaviour. She developed the Story Listening System – technology that supports children's literacy, especially in marginalized communities. Her research includes bringing women and other under-represented groups into science and engineering fields.

[Chair of the GFC on the Future of Computing](#)

Tony F. Chan

President, Hong Kong
University of Science and
Technology

**Mathematics and Computer Science**

Chan's scientific background is in mathematics, computer science and engineering. He was one of the principal investigators who made the successful proposal to the NSF to form the Institute for Pure and Applied Mathematics at UCLA. His research interests include mathematical image processing and computer vision, very large-scale integration, physical design and computational brain mapping. He has published over 200 refereed papers and is one of the most cited mathematicians in the world.

GULF member

Margarita Chli

Assistant Professor,
ETH Zurich

**Aircraft Robotics**

Chli's research involves developing visual perception for robots with a focus on small aircraft. She investigates technologies to enable collaboration of multiple small aircraft equipped with manipulators, is developing a robotic team to aid alpine search and rescue, researches technologies necessary for automating personal aerial transportation, and is building a small swarm of micro helicopters equipped with cameras to autonomously map a disaster area.

Steve Collins

Associate Professor,
Mechanical Engineering,
Carnegie Mellon
University

**Biomechatronics**

Collins uses a combination of mathematical models, experimental robots and biomechanics experiments to aid the design of biomechatronic devices for human rehabilitation, assistance and augmentation. He collaborates with clinicians, medical doctors and entrepreneurs to find opportunities for research with immediate applications. He aims to design medical devices that will interface with patients to enhance their efficiency, stability and overall performance in walking and running.

France A. Córdoba

Director, National
Science Foundation

**Experimental Astrophysics and STEM Education**

Córdoba leads the only government science agency charged with advancing all fields of scientific discovery, technological innovation and science, technology, engineering and mathematics (STEM) education. NSF's programmes and initiatives keep the US at the forefront of science and engineering, empower future generations of scientists and engineers, and foster US prosperity and global leadership. Her research has focused on observational and experimental astrophysics, multi-spectral research on X-ray and gamma ray sources and space-borne instrumentation.

Mary Cummings
Director, Humans and
Autonomy Lab (HAL),
Duke University



Artificial Intelligence

Cummings' research interests include human-unmanned vehicle interaction, human-autonomous system collaboration, human-systems engineering, public policy implications of unmanned vehicles, and the ethical and social impact of technology.

[Chair of the GFC on the Future of Artificial Intelligence and Robotics](#)

Benjamin Dillenburger
Assistant Professor for
Digital Building
Technologies, ETH Zurich



Building Technologies and Architecture

Dillenburger's research focuses on the development of building technologies based on the close interplay of computational design methods, digital fabrication and new materials. In this context, he searches for ways to exploit the potential of additive manufacturing for building construction.

Suzanne Fortier
Principal, McGill
University



Crystallography

Fortier is a crystallographer by training, specializing in the development of mathematical and artificial intelligence methodologies for protein structure determination. She has contributed to the development of novel techniques in crystallographic data mining to gain new insights from the large structural databases.

[GULF member](#)

Alice Gast
President, Imperial
College London



Chemical Engineering

Gast's academic interest is in science, in particular surface and interfacial phenomena, and more specifically the behaviour of complex fluids. She has co-authored numerous scientific publications and a classic textbook on colloid and surface phenomena. She was a faculty member at Stanford University from 1985 to 2001, where she was also affiliated with the Stanford Synchrotron Radiation Laboratory.

[GULF member](#)

Fabiola Gianotti
Particle Physicist, CERN



Particle Physics

Gianotti is the first woman to hold the position of CERN Director-General. She has worked on several CERN experiments, being involved in detector R&D and construction, software development and data analysis.

Gerard Gorman

Reader in Computational Science, Imperial College London

**Software-Based Algorithms**

Gorman is an expert in the development of software-based algorithms designed to solve complex dynamics problems such as fluid flows. His research interests range from geophysical fluid flow to multiscale and multiphysics modelling to adaptive computational algorithms to high performance computing and performance optimization.

Lino Guzzella

President and Professor, ETH Zurich

**Thermotronics**

Guzzella is an expert in thermotronics whose group focuses in research on novel approaches in system dynamics and control of energy conversion systems. A particular emphasis is placed on the minimization of fuel consumption and pollutant emission of land vehicle propulsion systems. He has published more than 100 research articles in peer-refereed journals and conferences as well as two research textbooks.

[GULF member](#)

Shirley Ann Jackson

President, Rensselaer Polytechnic Institute

**Theoretical Physics**

Jackson is a theoretical physicist who has had a distinguished career that includes senior leadership positions in academia, government, industry and research. She conducted research in theoretical physics, solid state and quantum physics, and optical physics. She is best known for her work on the polaronic aspects of electrons in two-dimensional systems. She was also the first African-American woman to receive a doctorate from MIT, in any field. She has been a trailblazer throughout her career, including as the first African-American woman to lead a top-ranked research university.

[Chair of the GFC on the Future of International Security](#)

Nick Jennings

Vice-Provost, Research, Imperial College London

**Intelligent Systems and Artificial Intelligence**

Jennings is an internationally recognized authority in artificial intelligence, autonomous systems, cybersecurity and agent-based computing. His research covers both the science and engineering of intelligent systems. He has undertaken fundamental research on automated bargaining, mechanism design, trust and reputation, coalition formation, human-agent collectives and crowd sourcing. He has also pioneered the application of multi-agent technology; developing real-world systems in domains such as business process management, smart energy systems, sensor networks, disaster response, telecommunications, citizen science and defence.

Sung-Mo Steve Kang
President, Korea
Advanced Institute of
Science and Technology



Electrical Engineering

Kang is an electrical engineering scientist, professor, author, inventor and entrepreneur. He teaches and has written extensively on computer-aided design for electronic circuits and systems and has led the development of the world's first 32-bit microprocessor chips as a technical supervisor at AT&T Bell Laboratories, designing satellite-based private communication networks as a member of technical staff. Kang holds 15 US patents and has won numerous awards for his ground-breaking achievements in the field of electrical engineering.

[Member of the GFC on the Future of Production and GULF member](#)

Stéphanie Lacour
Assistant Professor,
School of Engineering,
Ecole Polytechnique
Fédérale de Lausanne



Neuroprosthetics

Lacour has pioneered the development of stretchable electronics, demonstrating elastic metallization and the first stretchable electronic circuit. She was named to the "Top 35 Innovators under the age of 35" by MIT Technology Review in 2006. She is the recipient of an ERC starting grant entitled Electronic Skins aiming at defining the foundations of a prosthetic skin – restoring natural touch sensations for patients wearing an artificial hand.

Lynn Loo
Director, Andlinger
Center for Energy and
the Environment,
Princeton



Material Science and Education

Loo's research focuses on the structure development of complex materials for low-cost, lightweight and scalable plastic circuits and solar cells. She also leads the Princeton Affiliates Network that promotes teacher-student-practitioner interactions and fosters technology transfer on campus. Her research has recently expanded to include macro-energy systems analysis and carbon balance for processes that generate liquid fuels. Loo is Fellow of the American Physical Society and has been recognized as a Top 100 Young Innovator by MIT's Technology Review.

Jeremy O'Brien
Director, Centre for
Quantum Photonics,
University of Bristol



Quantum Computing

O'Brien is committed to advancing the field of quantum computing by demonstrating the first optical quantum controlled logic gate. His work aims to bring quantum computing to reality and the market in order to transform artificial intelligence, healthcare, energy, finance, cybersecurity and the internet. To do so, he is using a photonic approach to manufacture a universal quantum computer in a silicon fab, and exploiting silicon photonics developed for optical interconnects in the semiconductor industry.

[Chair of the GFC on the Future of Computing](#)

Allison Okamura
Professor, Stanford
University



Biomechanical Engineering

Okamura's research focuses on developing the principles and tools needed to realize advanced robotic and human-machine systems capable of haptic (touch) interaction, particularly for biomedical applications. She is particularly interested in control systems that allow human operators to manipulate environments that are remote in scale and/or distance, and that enable compelling touch-based interaction with computers, as well as in robots that physically manipulate their environment or their own shape, incorporating novel designs, sensors and control systems. Application areas include surgery, simulation and training, rehabilitation, prosthetics, neuromechanics, exploration of hazardous and remote environments, design and education.

Carlo Ratti
Director, SENSEable City
Laboratory, Department
of Urban Studies and
Planning, MIT



Cities of the Future

Ratti is an architect, engineer, inventor, educator and activist whose research group explores how new technologies are changing the way we understand, design and ultimately live in cities. His work deals with the built environment of cities – from street grids to plumbing and garbage systems – using new kinds of sensors and hand-held electronics that have transformed the way we can describe and understand cities. Other projects using data gathered from sensors help to create altogether new environments. He also has a vision for smart cities that would use the “human face” of urban technologies and their potential in promoting bottom-up social empowerment.

[Chair of the GFC on the Future of Cities and Urbanization](#)

Leo Rafael Reif
President, Massachusetts
Institute of Technology



Electrical Engineering and Emerging Technologies

Reif specialized in electrical engineering and emerging technologies before becoming President of MIT. His research focused on three-dimensional integrated circuit technologies and on environmentally benign microelectronics fabrication. An early champion of MIT's engagement in micro- and nanotechnologies, Reif is the inventor or co-inventor on 15 patents, has edited or co-edited five books and has supervised 38 doctoral theses. Reif was named co-chair of the US Advanced Manufacturing Partnership Steering Committee “2.0,” part of a continuing effort to maintain the country's leadership in emerging technologies that will create high-quality manufacturing jobs and enhance its global competitiveness.

[GULF member](#)

Thomas Rosenbaum
President, California
Institute of Technology



Material Behaviours

Rosenbaum's research is concerned with the behaviour of matter at temperatures near absolute zero, where quantum mechanical effects are manifest. He recognized early the significance and ubiquity of quantum phase transitions – from metal-insulator transitions to magnetism to exotic superconductivity – and his work is recognized as putting quantum transitions on as solid a footing as that long available for classical transitions. He has both exploited and advanced methods in experimental low-temperature physics, developing new techniques for high-resolution studies at milliKelvin temperatures.

[GULF member](#)

Evelyn Ruppert
Professor, Goldsmiths,
University of London



Sociology of Data

Ruppert studies the sociology of data specifically in relation to how different kinds of data and methods organize and constitute populations as objects of knowledge and governing. She has undertaken research on how different forms of data – from government censuses, administrative databases and surveys to everyday digital transactions and interactions – organize and make possible particular ways of knowing and governing populations.

Stuart Russell
Professor of Computer
Science, University of
California, Berkeley



Computer Science and Decision-Making

Russell's research interests are artificial intelligence, intelligent systems, Robotics, biosystems and computational biology, machine learning, real-time decision-making and probabilistic reasoning. He has received many awards for his work on AI.

[Member of the GFC on the Future of Artificial Intelligence and Robotics](#)

Kristina Shea
Professor, Engineering
Design and Computing,
ETH Zurich



Design and Engineering

Shea's research centres on developing cutting-edge computational methods and tools that enable the design of more innovative and complex engineered systems and products, including additive manufacturing (AM/3D printing). Her secondary aim is to automate design and fabrication processes. Her research is interdisciplinary, combining engineering, design and computing and considers early conceptual design phases through to the fabrication of novel solutions. The main application areas are in structures, consumer products, buildings and biomedical.

Subra Suresh

President, Carnegie Mellon University

**Biological Materials**

Suresh is a distinguished engineer and scientist who researches the properties of engineered and biological materials, and their connections to human diseases. His work has been published in more than 300 research articles, led to 25 patent applications and three books. It has shaped many disciplines and technologies at the intersections of engineering, science and medicine.

[Member of the GFC on the Future of Production](#)

Martin Vetterli

President, National Research Council, Swiss National Science Foundation

**Mathematical Signal Processing**

Vetterli has made numerous research contributions in the general area of digital signal processing and is best known for his work on wavelets. He has also contributed to other areas of study including sampling (signal processing), computational complexity theory, signal processing for communications, digital video processing and joint source/channel coding. His work has led to over 150 journal publications and to 24 patents.

[GULF member](#)

Shao-Horn Yang

Professor of Energy, Massachusetts Institute of Technology (MIT)

**Energy Storage and Conversion**

Yang studies materials for electrochemical and photoelectrochemical energy storage and conversion. This involves examining the influence of surface chemistry and electronic structures of thin films and nanomaterials on lithium storage and catalytic activity of small molecules of energy consequence, as well as applying fundamental understanding in reaction mechanisms to design new materials for lithium storage and electrocatalysis of oxygen reduction, water splitting, methanol oxidation and CO₂ reduction.

Robert Zimmer

President, University of Chicago

**Mathematics**

Zimmer is a specialist in the mathematical fields of geometry, particularly ergodic theory, Lie groups and differential geometry. His work focuses on group actions on manifolds and more general spaces, with applications to topology and geometry. Zimmer has collaborated with a number of mathematicians to apply his ideas to other areas of mathematics.

[GULF member](#)

Society, History and Values

Utkarsh Amitabh
Young India Fellow,
Ashoka University



Technologies for the Better Good

Amitabh was selected to join Social Impact House where he has set up an international mentoring programme for youth in politically unstable regions. He also focuses on digitizing government organizations and solving challenging socioeconomic issues through technology. His most recent project involves building a scalable and replicable model for smart villages in India. He has developed partnerships with large state government to leverage big data analytics to reduce dropouts in schools, increase healthcare efficiency and enhance farmer productivity.

Scott Atran
Director of Research,
Senior Fellow, Artis
International



Anthropology and Rational Choice

Atran has experimented extensively on the ways in which scientists and non-scientists categorize and reason about nature, on the cognitive and evolutionary psychology of religion, and on the limits of rational choice in political and cultural conflict. He has been engaged in conflict negotiations in the Middle East, in the establishment of indigenously managed forest reserves for Native American peoples and advises on world conflict management, the anatomy and evolution of global terrorism networks, and on pathways to and from violent extremism.

Andrea Bandelli
Executive Director,
Science Gallery
International



STEAM Public Engagement

Bandelli championed the use of the internet as a collaborative educational platform in schools and museums in Italy in the early 1990s, developed science centres NEMO, and became a partner of the Nanoscale Informal Science Education network, working with the Exploratorium in San Francisco. He has led, managed and evaluated several international projects linked to science, art, democracy and public participation. He has written widely on public engagement with science.

Carol Becker
Dean of Faculty, School
of the Arts, Columbia
University



Arts and Culture

Becker's research interests range from feminist theory, American cultural history, the education of artists, art and social responsibility, to South African art and politics. She has also published numerous articles and books on cultural criticism, lectures extensively in the US and abroad and is the recipient of numerous awards.

Lee C. Bollinger

President, Columbia University

**Freedom of Speech**

Bollinger is an American lawyer and educator. He was President of the University of Michigan, and he is a noted legal scholar of the First Amendment and freedom of speech. He is a fellow of both the American Academy of Arts and Sciences and the American Philosophical Society. He is widely published on legal and constitutional issues involving free speech and press.

[GULF member](#)

Nicholas Dirks

Chancellor, University of California, Berkeley

**History and Anthropology**

Dirks is a historian and anthropologist. His main research interests are on ethno-history, colonialism in India and the creation of Imperial Britain. He has written and contributed to several books and published more than 40 articles on subjects ranging from the history and anthropology of South Asia to social and cultural theory, the history of imperialism, historiography, cultural studies and globalization. He has done extensive archival and field research in India and in Britain.

[GULF member](#)

Drew Gilpin Faust

President, Harvard University

**American History**

Faust is a historian of the Civil War and the American South, and has written several books. As President of Harvard, she has expanded financial aid to improve access for students of all economic backgrounds and advocated increased federal funding for scientific research. She was also an advocate for a multidisciplinary focus and the exploration of new knowledge at the crossroads of traditional fields.

[GULF member](#)

Jonathan Haidt

Professor of Ethical Leadership, Stern School of Business, New York University

**Morality and Business Ethics**

Haidt is widely recognized for his research on the intuitive foundations of morality and how morality and emotion vary across cultures. He has applied moral psychology to understand America's ideological and hyper-partisanship. His work draws consistent praise from both sides of the political spectrum, he has built a new programme looking at complex social systems, working with economists and other social scientists to explore how to apply moral psychology to make businesses, non-profits, cities and other systems work more efficiently and ethically, without having to teach anyone ethics.

Margaret MacMillan

Professor of History, University of Oxford

**20th Century History**

MacMillan is a leading expert on the history of the 20th century, in particular the First World War, and the history of international relations. She looks at what our past can tell us about the present and future and has also published on roles and perceptions of gender in history. She has received many recognitions and honours for her work as a historian.

Patrick McCray

Professor of History
University of California,
Santa Barbara

**History of Science**

McCray is an expert in post-1945 and contemporary science and technology, in particular development of emerging technologies, different technological and scientific communities and their interactions with the public and policy-makers, history of physics. He combines his interest in science and technology with the humanities. His research has taken him to museums in Venice, to observatories in Chile and Hawaii, to rifling through boxes of correspondence in Silicon Valley.

Barbara Mellers

Professor of Psychology
and Marketing, Wharton
School, University of
Pennsylvania

**Decision-Making**

Mellers is a globally influential scholar of decision-making. Her research examines the factors that influence judgement and decisions, including emotions, self-interest, past mistakes, sensitivities to risk and perceptions of fairness.

C. L. Max Nikias

President, University of
Southern California

**Higher Education Models**

Nikias trained in and taught electrical engineering before becoming University President. He is a frequent speaker and expert on cost and access to higher education, online education models, importance of the arts in education and the societal role of research universities.

[GULF member](#)

Naomi Oreskes

Professor of the History
of Science, Harvard
University

**History and Environment**

Oreskes is both a historian and climate advocate. Her research focuses on the earth and environmental sciences, with a particular interest in understanding scientific consensus and dissent. Her essay “The Scientific Consensus on Climate Change” has been widely cited, both in the United States and abroad. Her opinion pieces have appeared in many media outlets and her 2010 book, *Merchants of Doubt, How a Handful of Scientists Obscured the Truth on Issues from Tobacco to Global Warming* was shortlisted for the Los Angeles Times Book Prize, and received the 2011 Watson-Davis Prize from the History of Science Society.

Philip Tetlock

Professor in Democracy and Citizenship, Wharton School, University of Pennsylvania

**Psychology and Forecasting**

Tetlock is a political writer at the intersection of psychology, political science and organizational behaviour. His research over the past four decades has explored the concept of good judgement, the impact of accountability on judgement and choice, the constraints that sacred values place on the boundaries of the thinkable, the difficult-to-define distinction between political versus politicized psychology and the usefulness of hypothetical-society experiments in disentangling fact and value judgements of the impact of competing policy proposals. He is also co-principal investigator of The Good Judgment Project, a multi-year study of the feasibility of improving the accuracy of probability judgments of high-stakes, real-world events.

[Member of the GFC on the Future of Platforms and Systems](#)

Jan-Werner Müller

Professor of Politics, Princeton University

**Modern Politics and Populism**

Werner Mueller's research interests include the history of modern political thought, liberalism and its critics, constitutionalism, religion and politics, and the normative dimensions of European integration. He is author of several books on patriotism and post-war thoughts.

Harvey Whitehouse

Director, Institute of Cognitive and Evolutionary Anthropology, University of Oxford

**Cognitive Science of Religion**

Whitehouse is the co-founder of the cognitive science of religion field. He is known for the theory of “modes of religiosity” that has been the subject of evaluation and testing by anthropologists, historians, archaeologists, cognitive scientists and evolutionary theorists. The modes theory proposes that the frequency and emotionality of rituals determine the scale and structure of religious organizations. His work has expanded beyond religion to examine the role of rituals of all kinds in binding groups together and motivating inter-group competition, including warfare.

Nobel Laureates

Elizabeth Blackburn

Professor, University of California, San Francisco



Molecular Biology

Blackburn is a leader in the area of telomere and telomerase research. She discovered the molecular nature of telomeres – the ends of eukaryotic chromosomes that serve as protective caps essential for preserving the genetic information – and the ribonucleoprotein enzyme, telomerase, which earned her the 2009 Nobel Prize in Physiology or Medicine.

Angus Deaton

Professor of International Affairs, Economics and International Affairs, Princeton University



Determinants of Health

Deaton's main research focus is poverty, inequality, health, well-being, economic development, and randomized controlled trials. He is particularly concerned with the determinants of health in rich and poor countries, as well as on the measurement of poverty and inequality in the US, India and around the world. Deaton was awarded the 2015 Nobel Memorial Prize in Economic Sciences for his analysis of consumption, poverty and welfare.

Ben Feringa

Distinguished Professor of Molecular Sciences, University of Groningen



Molecular Machines

Feringa's research achievements range from fundamental contributions in modern stereochemistry and chirality to molecular nanotechnology and dynamic molecular systems with seminal contributions to organic synthesis, asymmetric catalysis, molecular recognition and self-assembly. He has pioneered the control and use of dynamic functions and molecular motion. He was awarded the 2016 Nobel Prize in Chemistry for the design and synthesis of molecular machines.

F. Duncan Haldane

Professor of Physics, Princeton University



Material Behaviours

Haldane's research widely covers condensed matter physics including the theory of one-dimensional spin chains, the theory of fractional quantum hall effect, exclusion statistics and entanglement spectra. He was awarded the 2016 Nobel Prize in Physics for his co-development of the theory that explains unexpected behaviours of solid materials and identifies the principles by which they can suddenly change their form or phase, which paved the way for designing materials with novel properties, such as the ability to self-heal.

Christopher Pissarides
Professor of Economics,
London School of
Economics



Macroeconomics, Labour, Economic Growth and Economic Policy

Pissarides won the 2010 Nobel Prize in Economics for his contributions to the theory of search frictions and macroeconomics. He is also an expert in the economics of labour markets with special emphasis on unemployment, structural change, macroeconomic policy and European integration.

Brian Schmidt
Professor, Australian
National University



Astronomy, Cosmology, Science Policy and Science Education

Schmidt is known for his research in using supernovae as cosmological probes. He won the 2006 Shaw Prize in Astronomy and the 2011 Nobel Prize in Physics for providing evidence that the expansion of the universe is accelerating. Schmidt is currently leading the SkyMapper telescope project and the associated Southern Sky Survey, which will encompass billions of individual space objects, enabling his team to pick out the most unusual ones.

Robert J. Shiller
Sterling Professor of
Economics, Yale
University



Economics and Behavioural Finance

Shiller is the 2013 Nobel laureate in Economics and a best-selling author. He has been a research associate of the National Bureau of Economic Research (NBER) since 1980, was Vice-President of the American Economic Association in 2005, and President of the Eastern Economic Association for 2006–2007. He is also the Co-Founder and Chief Economist of the investment management firm MacroMarkets LLC. Shiller is ranked among the 100 most influential economists in the world.

[Member of the GFC on the Future of Behavioural Sciences](#)

Joseph E. Stiglitz
Professor, School of
International and Public
Affairs, Columbia
University



Macroeconomics, Public Economics and Information Economics

Stiglitz is the recipient of the 2001 Nobel Memorial Prize in Economics and the 1979 John Bates Clark Medal. He was a Senior Vice-President and Chief Economist of the World Bank and a Member and Chairman of the US Council of Economic Advisers. He is known for his critical view of the management of globalization, laissez-faire economists (whom he calls "free market fundamentalists"), and some international institutions like the International Monetary Fund and the World Bank.

[Steward of the System Initiative on Shaping the Future of Economic Growth and Social Inclusion](#)