



The Seed Institute

Advancing Scientific Thinking for the Benefit of the World

Vision & Outline – November 2012

Vision & Mission

We have seen repeatedly over the past twelve years that every time we apply twentieth century (economic/geopolitical) thinking to the challenges of the twenty-first, we fail: We ashamedly cannot reach a global climate pact. We are misguided by metrics of economic growth that do not reflect growth's inherent conflict with unsustainable, resource-draining sources of wealth. We are paralyzed by geopolitical frameworks that revolve around nation states even though the greatest challenges of our day have very little to do with borders. We make use of anachronistic judicial tools in sentencing people to death row. We govern in political cycles that belie the cycles of contemporary concerns.

We are unable to reset the systems that make up our world without recognizing the anachronistic foundations upon which they presently stand — foundations built largely on free-market economics, religion, and democracy. Economics failed to predict the Great Recession. Religion failed to prevent the devastation in Haiti. And democracy, broken as it is, has failed to govern us out of this general state of chaos.

We are living in times of unprecedented complexity and interdependence. We see that we cannot solve epidemics, for example, with solving climate change; we cannot solve climate change without rethinking economic growth; we cannot reconsider growth without an understanding of population and demographics; and we cannot anticipate population shifts without considering epidemics. The toolbox that served us well in the twentieth century is inadequate to wrestle with the systemic challenges that are apparent at the dawn of the twenty-first.

We have a brief window of opportunity to establish and advance a new lens to fix a planet that is critically out of balance. We need a new way of looking at the world and we need to assert new values to guide our actions — values rooted in empiricism, rational inquiry, evidence-based decision-making, and systems thinking.

Of all the constructs humanity has manufactured to resolve the world, only science represents these values and only science has proven capable of negotiating such complexity.

In the last decade, science has transformed the social, political, economic, aesthetic, and intellectual landscape. It is reshaping our understanding of who we are and where we come from and modernizing our system of values—how we regard our planet and one another. Other forces undeniably affect the state of the world, but science is the overwhelming and universal agent of change. Today, science affects every single person on the planet.

Scientific thinking is bigger than scientific discovery. It entails the application of the method, culture, philosophy — and discoveries — of science to society. Science is a methodology and philosophy rooted in evidence, kept in check by persistent inquiry, and bounded by the constraints of a self-critical and rigorous method. Science is a lens through which we can visualize and solve complex problems, establish international relations, and embolden democracy. Scientific thinking is about using data to uncover

patterns and support decisions; experimenting all the way to understanding; connecting things to reveal systems; and traversing scales and disciplines to get as close to truth as humanly possible. More than anything, what this lens offers us is a limitless capacity to handle all that comes our way, no matter how complex or unanticipated.

Only by thinking scientifically today will we move the world forward harmoniously and reset the planet on a path to sustainable prosperity... with 7 billion citizens who can apply the method and philosophy of science to all systems, problems, votes, and domains, from the economy to energy to food security; who view science as a lens through which to understand the world; and who have the capacity to see patterns, be facile with data, think critically, sequence decisions, and change one's mind with new evidence.

We can think scientifically at scale today because: the necessary science is sufficiently advanced, scientists are sufficiently aware of their social responsibility, science is now recognized on the global agenda, the tools of science have been democratized, and design thinking – a portal to the scientific method – is rooted in modern culture.

This is our renaissance moment.

Like the Renaissance of the fifteenth and sixteenth centuries, the renaissance before us will be characterized by a revolution in how knowledge is gathered, synthesized, and applied to society; by a great consilience of the arts and sciences; and by an awareness that science means more to us than its output – than drugs and technologies; more than something to be governed, science will become a way of governing and thinking.

This near-future is within our grasp.

The Seed Institute is a not-for-profit think/do tank committed to advancing scientific thinking for the benefit of the world.

Like the great think tanks of the 20th century, we seek to become a trusted partner of governments and international organizations around the world – architecting and advancing the long-term, systemic solutions needed to meet the 21st century's most pressing problems through our distinct lens.

We will promote universal science literacy, as newly outlined above, as a pre-condition for harmonious and sustainable progress and prosperity in the 21st century.

We will advance ideas and policy recommendations to help governments and international organizations advance scientific cultures and implement evidence/data-based policies.

We will aspire to be the defining think tank of the 21st century through our intellectual and social impact.

Founder

Adam Bly is the founder and Chairman of The Seed Institute. Over the past ten years, Adam has developed and articulated a new vision for science's place in the modern world that forms the intellectual foundation for the Institute.

He began his career in science at the age of 16 as the youngest researcher at the National Research Council of Canada, where he spent three years studying the biochemistry of cancer, specifically the role of cell adhesion in metastasis. Out of the lab, Adam founded *Seed Magazine* and served as its Editor-in-Chief. Under his leadership, the magazine — tag-lined “Science is Culture” — earned international critical acclaim for bridging long-standing divides between science and society, from art and design to politics and religion.

Adam has lectured around the world on the future of science and its role in society, most notably at the World Economic Forum in Davos, the National Academies of Science, the Royal Society, the National Institutes of Health, the US State Department, NASA, the Chinese Ministry of Science and Technology, The Museum of Modern Art, and The Academy of Sciences for the Developing World, before the National Science Board and the U.S. House of Representatives, at universities including Harvard, MIT, and Beijing, and at Fortune 100 companies including GE and Procter & Gamble. He has served on various nominating committees, juries, and boards, including the Buckminster Fuller Challenge, the Earth Award, the Science Advisory Committee of the World Economic Forum, the External Advisory Board of the University of Michigan's Risk Science Center, the American Committee of the Weizmann Institute of Science, the Communications Advisory Board of the National Academy of Sciences, and OECD's Global Project on Measuring the Progress of Societies. He served as Vice Chair of the World Economic Forum's Global Agenda Council on Design Innovation, and now serves as Vice Chair of the Global Agenda Council on Complex Systems. He recently served as a Partner to the Executive Coordinator's Office of Rio+20, the UN Conference on Sustainable Development.

Adam is the editor of *Science is Culture: Conversations at the New Intersection of Science + Society* (HarperCollins), which has been translated into Mandarin, Turkish, Spanish, and Portuguese. He was named a Young Global Leader by the World Economic Forum and is a recipient of the Golden Jubilee Medal from Her Majesty Queen Elizabeth II. His achievements have been highlighted by former Canadian Prime Minister Jean Chrétien, “for showing people the scope and power of science not just as an object of study but as a key to understanding the world around us.”

Structure & Organization

The Seed Institute will be incorporated as a 501(c)3 under the US tax code and will have its primary office in New York City.

The Institute will be overseen by a Board of Directors. Adam Bly, founder of The Seed Institute, will serve as Chairman of the Board. The Board will be responsible for setting overall Institute strategies and policies.

The Institute will be run by an Executive Director. Reporting to the Executive Director will be a Director of Finance & Operations, a Director of Programs, and a Director of Research.

Based on program funding levels, Program Managers and support staff will be hired, reporting to the Director of Programs.

Fellows and Senior Fellows will report to the Director of Research.

Additionally, the Institute will convene a society of experts around each of the major facets of society and its interface with science. The Councils, chaired by distinguished thought-leaders, will provide ongoing intellectual support to the Institute and be engaged in specific advisory projects. The initial councils will be as follows:

- Science & Religion Council
- Science & Economics Council
- Science & Arts Council
- Science & Design Council
- Science & Development Council

Activities

The Institute's activities will be divided into Core and Programs.

Core

Research – Reports written by Fellows, Senior Fellows, and Council Members issued regularly or bundled into a quarterly digital journal

Advisory – The Institute's leadership, Fellows and Senior Fellows, and Council Members will provide advisory support to governments and international organizations regarding the application of scientific thinking to their areas of concern

Programs

A portfolio of short-term and long-term programs launched with specific funding and partnerships. For example:

- A New Narrative for Science in America – Tackling the dire state of science literacy in the United States
- Global Science Literacy Survey – Defining new metrics for evaluation of science literacy and benchmarking progress around the world
- Science and the Arab World – Rekindling a scientific culture in the Arab World as a driver of sustainable growth
- Governing the Global Commons – New data-driven approaches to governing resources and concerns that transcend nation states
- Resilience – Architecting resilience into our economic, social, and technological systems
- Re-Architecting Science – Opening up science to reflect the needs of society
- Seed Institute Annual Summit – An annual gathering of the world's foremost scientific thinkers

Partnerships

Leveraging established relationships, the Institute will forge knowledge partnerships with various international organizations for joint research efforts, programs, and general knowledge-sharing.

Likely partner organizations will include:

- World Economic Forum
- United Nations
- White House Office of Science and Technology Policy
- The Royal Society
- Oxford University James Martin School
- Harvard University Program on Science and Society
- Science, Technology and Society Forum
- The Museum of Modern Art
- The Academy of Sciences for the Developing World
- National Academies of Science
- Chinese Ministry of Science and Technology
- European Commission
- Qatar Foundation

Further Reading

The following list of articles/talks by Adam Bly is provided as further reading/viewing concerning the Institute's vision and point of view:

- Science is Culture
- A New Narrative for Science in America
- Modernizing Global Governance
- Instigating a New Overview Effect
- Making Open Science Real
- Big Think Interview

Launch Funding

We are currently preparing incorporation documents for the Institute and are seeking commitments for \$5 million in launch funding from individual and institutional donors.

Founding donors will form the Institute's Founders Circle. The Founders Circle will have direct access to the Institute's intellectual resources and network, will advise the Chairman on strategic initiatives, and will be invited to participate in the Institute's highest-level events.

Our goal is to secure launch funding commitments in time to announce the Institute at the end of January at the World Economic Forum Annual Meeting in Davos.

As commitments are secured, we will focus on recruiting the Executive Director.