

ERICA GOLDMAN

Bring on the Policy Entrepreneurs

Teaching early-career researchers the skills to engage in the policy arena could prepare them for a lifetime of high-impact engagement and invite new perspectives into the democratic process.

In the first six months of the COVID-19 pandemic, the scientific literature worldwide was flooded with research articles, letters, reviews, notes, and editorials related to the virus. One study estimates that a staggering 23,634 unique documents were published between January 1 and June 30, 2020, alone.

Making sense of that emerging science was an urgent challenge. As governments all over the world scrambled to get up-to-date guidelines to hospitals and information to an anxious public, Australia stood apart in its readiness to engage scientists and decisionmakers collaboratively. The country used what was called a “living evidence” approach to synthesizing new information, making it available—and helpful—in real time.

Each week during the pandemic, the Australian National COVID-19 Clinical Evidence Taskforce came together to evaluate changes in the scientific literature base. They then spoke with a single voice to the Australian clinical community so clinicians had rapid, evidence-based, and nationally agreed-upon guidelines to provide the clarity they needed to care for people with COVID-19.

This new model for consensus-aligned, evidence-based decisionmaking helped Australia navigate the pandemic and build trust in the scientific enterprise, but it did not emerge overnight. It took years of iteration and effort to get the living evidence model ready to meet the moment; the crisis of the pandemic opened a policy window that living evidence was poised to surge through. Australia's example led the World Health Organization and the United Kingdom's National Institute for Health and Care Excellence to move toward

making living evidence models a pillar of decisionmaking for all their health care guidelines. On its own, this is an incredible story, but it also reveals a tremendous amount about how policies get changed.

Policy entrepreneur as changemaker

Many years before the pandemic, living evidence had become the life's work of Julian Elliott, a clinical doctor and professor at Monash University in Melbourne, Australia, and the founder of the Future Evidence Foundation, a nonprofit that focuses on evidence synthesis. Elliott became interested in evidence when he was an HIV doctor working in Cambodia in the mid-2000s. There, he saw a critical need for accessible, up-to-date health evidence to inform both daily clinical decisions and public health programs. Thousands of people were dying of HIV/AIDS, but it was difficult to find high-quality evidence for sound decisionmaking, patient care, and program development.

This experience inspired him to reimagine all aspects of evidence synthesis and use. The usual cycle of publishing research, conducting systematic reviews, and eventually creating guidelines can take years. Instead, Elliott piloted an approach that would make it possible to create, link, and update datasets so that new research findings could flow through to health systems in days. His model simultaneously brings researchers, clinicians, and decisionmakers together with new ways for people to contribute and collaborate to make sense of research.

In 2014, Elliott and colleagues published a first vision paper in *PLOS Medicine* on the living evidence model. In subsequent

years, he helped found the Living Evidence Collaboration in Australia, which used the approach to create living evidence guidelines for stroke and diabetes care. These guidelines were dynamic, online-only summaries of evidence that were updated rapidly and frequently. By the time the COVID-19 pandemic hit in 2020, living evidence already had a proof of concept to build upon and was able to scale rapidly when it was urgently needed.

Elliott is an example of a policy entrepreneur, a uniquely catalytic player in the policy arena. Like Elliott, many policy entrepreneurs fly under the radar for decades as they develop policy ideas geared to specific problems, surfacing with solutions at the right moment. There is a tendency to view such people as “naturals,” and their work is rarely included in science or policy curriculums. But policy entrepreneurship should instead be seen as a set of skills and strategies that are relatively easy to learn. Teaching these to a wider range of scientists could bring both new policy ideas and more diverse perspectives into the process of democratic decisionmaking.

Policy entrepreneurs in the wild

Although individual policy entrepreneurs are visible within the policy space, they're not well known outside of it. The term was first popularized in the 1980s by political scientist John Kingdon, a close observer of politics in Washington, DC, who noticed how “windows of opportunity” opened for policy changes after an election, an annual budget process, or a national crisis. Policy entrepreneurs, who had often been championing particular solutions for years, had the ability to spot these windows and accelerate the adoption of new practices. Kingdon suggested that policy entrepreneurs “could be in or out of government, in elected or appointed positions, in interest groups or research organizations. But their defining characteristic, much as in the case of a business entrepreneur, is their willingness to invest their resources—time, energy, reputation, and sometimes money—in the hope of a future return.”

Subsequently, scholars Mark Schneider and Paul Teske combined detailed case studies with surveys to better understand what policy entrepreneurs do and when their actions contribute to policy changes. Other scholars, notably Michael Mintrom, added to the literature by describing policy entrepreneurs as ambitious in pursuit of a cause, credible as experts in their field, and socially aware. The sociable tenacity he identified makes sense; driving a major policy innovation takes commitment and energy—a watchful waiting and building that may take decades to come to fruition. Those who are prepared to do this must be motivated by a bigger vision for a better future.

This body of scholarship is important, but it's largely descriptive and theoretical—and also confined to the political science literature. Although many policy

entrepreneurs come to their role by virtue of a strong personal desire to make a difference, they often have to pick up their skills on the job, through informal networks, or by serendipitously meeting someone who shows them the ropes. A practical roadmap or curriculum could empower more people from diverse backgrounds and expertise to influence the policy conversation.

Thomas Kalil, who served in senior roles for more than 16 years in the White House, described the need in his article “Policy Entrepreneurship at the White House”: “I believe that individuals who have had the opportunity to serve as policy entrepreneurs acquire tacit knowledge about how to get things done. This knowledge is difficult to share because it is more like learning to ride a bicycle than memorizing the quadratic formula.” Since leaving the White House, Kalil, and many who worked with him, have helped others learn to ride that bicycle.

Growing a movement

My own organization, the Federation of American Scientists (FAS), identifies policy entrepreneurship as a foundational principle of our work. Starting in 1945, when it was called the Federation of Atomic Scientists, the organization included scientists directly involved with the Manhattan Project who felt called to combat the nuclear arms race by promoting public engagement, reducing nuclear risks, and establishing an international system for nuclear control and cooperation. Today, FAS's mission has expanded, but FAS staff and leadership remain policy entrepreneurs in spirit and in practice, taking the same approaches today to advance progress in climate, wildfire, artificial intelligence, and more. For the past several years we've been talking with others in our orbit about how to make the tacit knowledge of the policy community more accessible to scientists and everyone else.

Along with others from FAS, I believe the world needs more policy entrepreneurs. In the face of urgent global challenges such as climate change and pandemics, policy entrepreneurship is one way to hasten progress. Moreover, in a country bitterly divided along partisan lines, policy entrepreneurs can propose pragmatic solutions that bridge myriad gaps. And, as in the case of Julian Elliott's work during the pandemic, policy entrepreneurship can also bring stakeholders together to rally around a practical approach toward a common goal. Empowering early-career researchers with skills to engage the policy arena could prepare them for a lifetime of high-impact engagement—while bringing their diverse perspectives to the task of democratic governance and accelerating transformative policy outcomes. To this end, FAS has been experimenting with how to help more scientists find their inner policy entrepreneur by creating methodologies for training and communities of practice.

Before the 2020 presidential election, FAS created a platform called the Day One Project to support experts with promising policy ideas. Through online, multiweek bootcamps,

we helped experts conceive and write policy memos. Then we gave them the tools to identify levers of policy change and encouraged them to meet with decisionmakers and other stakeholders with the authority to help implement ideas.

The Day One Project has now published more than 300 memos. Some have become policy. In one recent example, engineer and climate technologist Lauren Shum wrote a memo in 2021 spelling out a plan to address the problem of lead emissions from small airplanes that use leaded fuel, which can endanger public health. Armed with her memo, Shum met with decisionmakers in the Environmental Protection Agency (EPA) and other stakeholders. In October 2023, the EPA finalized an endangerment finding, which will get the ball rolling on legislative and executive action.

The Day One community's results have been encouraging, but our team believes that it would be helpful to create a more cohesive network where policy entrepreneurs can share lessons learned, mentor others, and help build and grow the field. Earlier this fall, we participated in a meeting with more than 100 people who have been architects of change on issues

A practical roadmap or curriculum could empower more people from diverse backgrounds and expertise to influence the policy conversation.

from organ donation to immigration reform. The group came together to envision how a Policy Entrepreneurship Network could create a scaffolding to support current and aspiring policy entrepreneurs. The group's goal is to create a community of practice for policy entrepreneurs that can assist other members of the community with advice and connections, share what they have learned with broader audiences, and serve as an incubator for projects related to policy entrepreneurship.

Building greater awareness is another important step toward growing a movement. Recently, the Institute for Progress began publishing a newsletter about getting things done in the policy sphere, *Statecraft*, which features interviews with policy entrepreneurs who, like Julian Elliott, have achieved change over a career of engagement. In its first issue, it featured an interview with Mark Dybul, one of the architects of the President's Emergency Plan for AIDS Relief, better known as PEPFAR, under President George W. Bush. Dybul talked about creating a successful program and some of the unexpected administrative decisions that made cross-government coordination highly effective. An issue in September featured Marina Nitze, former chief technology officer of the US Department of Veterans Affairs (VA), who helped millions

of veterans access VA health care through simple technical reforms. Nitze described how correcting a misinterpretation of the Paperwork Reduction Act made it possible to talk more expansively to veterans about their experiences and put user research at the center of reform efforts.

Telling these stories of successful policy entrepreneurs reveals the often-hidden mechanisms of policy change while demonstrating the power of tenacious individuals in a way that is both empowering and optimistic. These stories are one example of the sort of multipronged effort that will be necessary to make policy entrepreneurship widely accessible and not simply a product of individual heroism or serendipity.

Policy entrepreneurship is a journey, not a destination

Reading the stories of Dybul and Nitze also offers a reminder that being a policy entrepreneur takes a paradoxical combination of urgency and patience, stubbornness and flexibility. You can never truly know when your work will pay off, or what additional opportunities will open up along the way. Though you can pay attention to the demand signals, you simply can't always know when world events will create a new policy window, or when leaders who can adopt new policies will be paying attention.

Even for policy entrepreneurs, planting the seeds of policy change takes time. As society contends with challenges such as climate change and global security, policy entrepreneurs who are ready to deploy creative, tenacious, and pragmatic approaches to making change need decades of cultivation and scaffolding.

Today's random arrangement of education for scientists in policy is too slow and too haphazard to yield the progress needed on pressing problems and on bringing diverse perspectives into the policy process. As the movement to build policy entrepreneurs progresses, it will need to build a curriculum that is tactical, actionable, and accessible. Every graduate student in the hard sciences, social sciences, health, and engineering should be able to learn some of the basic tools and tactics of policy entrepreneurship as a way of contributing their knowledge to a democratic society.

In the years since his model was applied during the height of the COVID-19 pandemic, Julian Elliott has participated in hundreds of meetings all over the world, helping to share knowledge on how living evidence can improve decisionmaking. Although the pandemic helped open the policy window for living evidence, it is now being applied in Asia, Africa, North America, and Europe on subjects including education and climate change, and its long-term impacts are only starting to be felt. Similarly, policy entrepreneurship has been recognized for many decades, but efforts to organize active, structured support are just beginning.

Erica Goldman is director of science policy entrepreneurship at the Federation of American Scientists.