Editor's Journal Keep on Truckin'

Degan working at *Issues* in mid-1987, and 32 years later it's ... what?—sobering? enlightening? depressing? bewildering? astonishing?—to reflect on how science, technology, and health policy has and hasn't changed. Many topics are as timely now as they were then. During my first year, we published articles on recruiting more women into science and engineering, improving aviation safety, tapping immigrant talent, reducing plastic trash, overseeing new biotechnologies, retraining workers amid technological change, rethinking the war on cancer, and making universities more responsive to economic needs. Since then, *Issues* has travelled a Möbius loop of topics, taking us through innumerable twists and turns and often landing us back where we started.

Progress? Some topics from those early issues have receded. The Environmental Protection Agency has made Superfund sites less hazardous, the Strategic Defense Initiative died on the vine, the ozone layer is being better monitored and protected, new technology has tapped additional oil and gas reserves. (I know, not everyone counts that as an achievement, but many saw it as a desirable goal in the 1980s.)

The author rosters in those first few issues also tell an interesting story. It is not surprising to find presidential science adviser George Keyworth on the role of science in the White House, Harvey Brooks on the social responsibility of the research university, Anthony Fauci and C. Everett Koop on the need for AIDS research and public education, MIT president Jerome Weisner on redirecting research priorities from the military to social needs. But Sen. Sam Nunn on agricultural policy, Secretary of State George Schultz on keeping scientific communication open, and Indian prime minister Rajiv Gandhi and Norwegian prime minister Gro Harlem Brundtland on the need to address global environmental problems?

Although *Issues*' topics have become even more central to societal well-being, I worry that the world's decision-makers and the public are actually paying less attention to science's role. Climate change, the opioid epidemic, online privacy, and a few other subjects attract headlines now and then, but there are far fewer popular science magazines and newspaper science sections now than in the 1980s. Researchers have become more active in the nation's civic life, and more citizens are demanding a seat at the policy-making table, but I worry that too few of the nation's leaders are fully engaging in critical discussions of such potentially life-altering developments as artificial intelligence, human gene editing, and climate engineering.

Over the past three decades, Issues has aspired to be the best place to find informed, understandable, and useful discussions of a broad array of subjects from a diverse array of experts. We reached out to leaders in government, universities, business, think tanks, and advocacy groups. We were a bit top-heavy in the early years, favoring well-known authors, but we gradually recognized that wisdom is widely distributed and expanded our universe of authors. I am grateful to the heads of state and community leaders, graduate students and Nobel laureates, CEOs and citizen activists who took the time and energy to write, without pay, and then to endure the editorial harassment that inevitably followed. I am indebted to them for educating an editor pig-ignorant in the physical and social sciences, the various engineering disciplines, medicine and public health, never mind law, ethics, philosophy, and so much more. And I can't forget the many artists who let us feature their work for free, enlarging our understanding of the role of science and technology in the nation's culture with their imagination, insight, and perspective. I was fortunate early on to work under the direction of Steve Marcus, whose experience at *Technology Review, High Technology*, and the *New York Times* made him a brilliant editor and a perfect mentor. Without the Marcus bootcamp, I would not have been prepared to become editor-in-chief in 1991. And I am equally fortunate now that I am giving up that position to know that the magazine will be in the hands of Dan Sarewitz, slayer of tired assumptions and lazy argument. You can expect *Issues* to be more timely, thoughtful, surprising, and enlightening.

I am also grateful to the institutions that supported a magazine that was never destined to be a financial success but that had a critical societal role to play. The National Academies have been the keystone supporter from the outset. The University of Texas at Dallas became a copublisher in 1992 and continued its support for more than 25 years, ending with this issue. Arizona State University joined the team in 2013 and is committed to carrying on and expanding our online and social media presence. None of resisting the temptation to adopt unchangeable positions or reach immutable conclusions. The challenge is remaining perpetually open to all positions and alert to new ideas, relishing the ferment of human ingenuity and creativity. The only truly lasting insight I have chalked up is that we must further broaden participation in these discussions. We need the wellknown experts, government officials, and business leaders when a new challenge emerges, but we also need to open our eyes and ears to a much broader and richer well of insight and experience. Not all the many people who care about the topics discussed in Issues are experts in science and technology, but all deserve to be heard. Public policy is not driven by expertise alone. It is an amalgam of culture and values, of history and aspirations, of knowledge and uncertainty.

Of course, we all have to form opinions at times because we need to act. That's why every article we publish expresses a point of view and argues for that position. But opinions must shift as knowledge continues to expand and values continue to evolve.

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these institutions is in the magazine business, but all expanded their mission to provide a forum for engaging the public and leaders in government, universities, and industry in public policy discussions involving science, technology, and medicine.

And now that this is becoming an Oscar acceptance litany, I need to thank Sonja Gold, who is leaving after more than 25 years of managing the magazine's business side, and Jay Lloyd, whose expanding role includes editing the book reviews and managing the production process. Thanks also go to Pam Reznick, who created the original design for the magazine and steadily improved it over three decades, to her successor Fabio Cutro, and to J. D. Talasek and Alana Quinn, who find the artists we feature. Tom Burroughs has been working his editorial magic on articles during my entire tenure and now also writes the news items on our website.

So what does it all mean? Certainly after producing more than 10,000 pages of words and images I must have arrived at some perennial wisdom. Or not. Editing a magazine such as *Issues* actually requires Issues, I hope, will continue to help make sense of it all.

Besides, scientific insights from physiology, neuroscience, behavioral economics, and elsewhere are forcing me to reconsider how I reach conclusions. Am I just some form of biological artificial intelligence system preloaded with genetic algorithms, fed data in the form of personal experiences, and subconsciously led to a collection of values and opinions over which I exercise no conscious control? Or is my political and philosophical position the cumulative output of the billions of components of my microbiome? I'll have to keep reading *Issues* to find out.

I have no regrets, but as for unfulfilled wishes, if I had another 30 years or so at the helm, I'd try to find a way to incorporate music into *Issues*. For now, as I struggle to sum up what I've learned and find a way to say goodbye, these Grateful Dead lyrics come to mind:

Sometimes the light's all shining on me, Other times I can barely see. Lately it occurs to me What a long, strange trip it's been.