

## Open to Experimentation

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America is an especially philanthropic society. It has ranked number one on the World Giving Index for the last 10 years. A 2016 report found that annual charitable giving in the United States was equal to 1.4% of the country's gross domestic product (almost \$260 billion)—nearly double runner-up New Zealand's 0.8%. Much of this giving goes to philanthropic organizations, which play a large and important role in America's charitable ecosystem. Evan S. Michelson, a program director at the Alfred P. Sloan Foundation and previously at the Markle Foundation and Rockefeller Foundation, has extensive experience with philanthropy devoted to advancing science and technology. In his new book, *Philanthropy and the Future of Science and Technology*, he offers history, analysis, and suggestions for improvement to the research-oriented philanthropic community.

What do science philanthropies do? Michelson describes the history and current state of charitable giving in science and technology. He compares science funding from foundations with funding from government and industry and finds several advantages to foundation funding. As he frequently repeats in the book, foundations have more flexibility and are more accepting of risk than government funders; they have greater tolerance than industry for more fundamental research with longer payoff horizons. Government funders, he argues, tend to shy away from risk because government officials face media and constituent blowback when things go wrong. Additionally, the incentive structure

in government does not reward risky endeavors or innovative successes. Foundations, on the other hand, are more open to experimentation, and they can more easily build their incentive structures to reward both employees and grantees when riskier bets pay off.

We see the importance of innovation and risk-taking in philanthropy frequently in our own work. As senior fellows with the Charles Koch Institute, which is part of the Stand Together philanthropic community, we advise on grants related to economic opportunity and technology and innovation issues. We look for entrepreneurial partners building bottom-up solutions that revitalize the key institutions of society—business, communities, education, and government. Our grantee partners are tackling difficult problems where failure is always a risk, but a risk worth taking. We try to mitigate that risk by helping our partners scale holistically, offering not just grants and talent development but also support with communications, management consulting, and fundraising.

For example, a willingness to push beyond safe and comfortable approaches enabled our community—generally considered “right of center” politically—to successfully advance criminal justice reforms that appealed to activists and thinkers across the political spectrum. On the public policy side, Stand Together helped build a bipartisan coalition that got the First Step Act, which implemented sentencing reforms and other criminal justice reforms that activists had long called for, passed in 2018 when many observers thought such reform was impossible. On the grantmaking side, a partnership with Recidiviz, a data platform that helps improve the criminal justice system by providing criminal justice agencies with real-time information about prison facilities, has helped shrink prison populations throughout the country. Our work is



**Philanthropy and the Future of Science and Technology**

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evidence that Michelson is right about the value of private philanthropy’s risk tolerance.

In the book’s most compelling section, Michelson discusses the evolution of foundation giving over the twentieth century. He offers keen observations of how philanthropic giving evolved from ad hoc gifts driven by the personal interests and connections of the benefactors to the more formalized, institutional practices that continue today. These include knowledgeable program officers who recommend grantees, grants earmarked for specific projects, and mission statements that guide giving. And Michelson provides examples demonstrating that foundations played a significant role in shaping the course of scientific progress.

For example, the Rockefeller Foundation funded research in cellular and molecular biology with the purpose of eliminating disease, and indeed that

work helped to eradicate hookworm and yellow fever. Michelson makes a very brief mention of the Rockefeller Foundation’s support for the agricultural Green Revolution, which dramatically increased the world’s food supply and arguably preserved and advanced democracy during the Cold War. Michelson gathers many other interesting tidbits to make his case: did you know that the term “artificial intelligence” was first used in the 1950s in a grant application to the Rockefeller Foundation?

Although these anecdotes make for interesting reading, Michelson offers no empirical support demonstrating that private philanthropy has significantly influenced the course of scientific progress. For example, there is no comparison of funding trends from philanthropy, industry, and government over time. While original research tackling this question is beyond the scope of his book, referencing other work, if it exists, would strengthen the case for Michelson’s prescriptions elsewhere.

Building on his history of philanthropic funding, Michelson has opinions on how science philanthropies should operate. Specifically, he wants foundations to support research while encouraging researchers to “take better account of the societal implications of their research.” Michelson writes, “Science philanthropies need to intertwine what they do with how they do it.” This sentence, buried in the middle of a paragraph in a late chapter of the book, is the clearest articulation of his key message.

To achieve this shift in science philanthropy, Michelson seeks to apply the Responsible Research and Innovation (RRI) framework to grantmaking for science and technology research. RRI is a somewhat amorphous theoretical framework for “taking care of the future through collective stewardship of science and innovation in the

present,” according to one scholarly definition Michelson uses. Seeking to steward science and innovation to meet social goals, various European funding bodies have adopted RRI in their open calls for research.

European government funding agencies use RRI to “steer research” in emerging areas, according to academic work summarized by Michelson, and those agencies seek to leverage “the power of the purse-strings” to have “substantial influence in how research is conducted.”

Although RRI has been embraced by certain government funders in the European Union, Michelson believes foundations have neglected RRI—and RRI theorists have neglected foundations—and that this presents an opportunity. More specifically, “A central goal of this book is to combine the RRI theoretical framework with a detailed investigation of the role that foundations play in shaping science and technology.”

The idea that science philanthropy should improve society is noncontroversial: other than movie villains, who sets out to make society worse? It’s much harder, though, to identify research that makes society better off, not only in the direct sense (“Is this grant going to generate something useful?”) but also in the more abstract sense (“What does a better-off society look like?”). Michelson writes as if it is clear how to improve society. But as people who are deeply involved with philanthropy and public policy, we can confidently say there is substantial disagreement once we move beyond platitudes.

There are competing and often incompatible visions of what constitutes the seemingly obvious goals of “good schools” or “a strong economy” or “reducing inequality” among people acting in good faith. Does achieving greater economic equality, for instance, mean working toward equality of opportunity (i.e., removing obstacles in order to give

everyone the same chance to succeed) or equality of outcome (i.e., ensuring that everyone, regardless of ability or merit, achieves approximately the same general economic condition)? Furthermore, even when ends are agreed upon, people often differ on the means for reaching them. So while philanthropies should act to improve society, evaluating progress toward that end ultimately depends on subjective ideas of what a good society looks like.

It is not clear whether Michelson accepts that there are competing visions for improving the well-being of society or acting in a socially responsible way. He implores foundations to act with such goals in mind, suggesting that there is some standard they should be using, but he never lays out the standard. The only metric that Michelson clearly and consistently associates with the well-being of society or societal responsibility is an emphasis on diversity and inclusion. But even for philanthropic foundations prioritizing these important values, there is little here to guide their giving adequately.

This brings us back to the usefulness of RRI as a guiding framework: without an agreed-upon definition of societal responsibility or consensus around actions that improve the well-being of society, the RRI framework does not offer much guidance. How should philanthropies evaluate research on artificial intelligence that replaces human decisionmaking, for example? Or medical research involving human stem cells? RRI offers little help for navigating these fraught scientific, ethical, and political issues.

In addition to the fundamental challenge of determining what “responsible” means, foundations face practical problems in applying RRI to their grantmaking. Michelson argues that foundations can and should influence how their grantees act by including RRI elements in their grant agreements. It certainly seems correct that funders *can* influence grantees’ practices; the lure of funding can

incentivize researchers to undertake any number of efforts that they might otherwise not pursue, including applying the RRI framework.

But this might be difficult to demonstrate in the real world. As an example of foundation influence, Michelson offers the Heising-Simons Foundation’s requirement that grantees adopt a diversity statement in order to advance the foundation’s goal of promoting racial and gender diversity. However, he does not report whether that requirement had any real effect on diversity. It could be the case that the organizations and people who seek funding from Heising-Simons are already aligned with the foundation’s views on diversity, and thus the requirement of a diversity statement simply made explicit what was already being done implicitly.

The concept of self-selection—that people, organizations, and foundations with shared interests and goals match voluntarily with one another—is not considered by Michelson. Instead, he assumes that foundations impose their preferences, at least to some degree, on their partners and grantees, changing the funding recipients’ behavior. Michelson’s case would be stronger if he offered some empirical evidence that researchers or organizations meaningfully adjust their behavior to please foundations, rather than seek out foundations that align with their existing practices—or, worse, simply superficially comply to maintain eligibility for a grant.

The weakest part of the book is that it does not provide evidence that the RRI framework helps foundations or other nonprofits achieve their goals or realize their vision. Michelson doesn’t ask a crucial question: does grantmaking consistent with the dimensions of RRI—including anticipation, reflection, inclusion, and responsiveness—help foundations make progress on the issues or topics they and their donors care about?

Even if funders can shape the

research agendas of their grantees, should they? There are costs to doing so. As the philanthropy strategist Debi Ghate contends in a recent piece in *The Chronicle of Philanthropy*, foundation mandates, in this case related to diversity, can place costs on organizations that may interfere with their success. “Such mandates,” she writes, “may result in not hiring the people best equipped to help nonprofits achieve their missions, incurring additional recruiting costs to meet diversity requirements when on a tight budget, and compromising on the quality of critical services by hiring less qualified people on the basis of nonessential criteria. Ultimately, such requirements may mean a nonprofit fails to effectively serve the very types of people the foundation is supporting.”

That Michelson does not address this issue is peculiar given that he does repeat criticisms of the distorting effect that corporate funding can have on scientific research. He also summarizes concerns about the lack of democratic accountability at philanthropies. Why is corporate pressure inherently suspect while foundation pressure is welcomed? And why is undemocratic influence on researchers justified when imposing RRI but not in other instances?

In any case, a foundation that tries to force its preferences on grantees is likely to discover that such grantees are not the best partners for furthering the foundation’s mission. We have found that working with grantees who already share our core values is the best way to achieve our shared goals.

One of the most interesting discussions in the book takes place when Michelson explores emerging alternative approaches to science philanthropy. He focuses on how these approaches challenge or fulfill the RRI framework, but the real value is his examination of their potential

to disrupt existing philanthropic models. These alternatives include research centers housed within philanthropies; the use of crowdfunding platforms such as Kickstarter or experiment.com; the expanded use of prizes for high-risk, high-reward research; and the use of for-profit corporate forms such as limited liability companies (rather than philanthropy’s usual nonprofit status) to enable financial relationships with a wider variety of entities—including for-profit companies—that can have an impact on social problems. Michelson does a good job describing the pros and cons of these alternatives compared with the traditional method of foundation grants to outside researchers via a competitive application process.

Foundations should be good stewards of the resources provided by their donors, which we interpret as having an actual impact on the issues those donors care about. One of Michelson’s interviewees remarks that “new donors are becoming interested in moving beyond funding their favorite universities ... to identify grantmaking opportunities where their resources might be most useful and valuable.” To the extent this is occurring, we agree with Michelson that this is a positive development, and it demonstrates a shift toward outcomes taking priority over methods.

While the existence of the book itself accomplishes Michelson’s goal—“to combine the RRI theoretical framework with a detailed investigation of the role that foundations play in shaping science and technology”—he fails to establish the importance and usefulness of the RRI framework for philanthropic giving. People who are skeptical of RRI or who subscribe to a different framework will find little in this book to convince them to adopt RRI, especially if

they prioritize mission over process. This doesn’t mean the book is not useful or worth reading. *Philanthropy and the Future of Science and Technology* is a valuable contribution to the philanthropy and grantmaking literature: Michelson’s brief history of science and technology philanthropy, the reflections from people within the philanthropic ecosystem, and his analysis of the novel modes of philanthropic giving are especially insightful and have given us new ideas to consider in our own work.

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