SCIENCE AND GOVERNMENT

Science and the Candidates

The U.S. science community has converged at record speed with the unified goal of raising the profile of science in our national dialogue.

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In just a few months, many in the U.S. science and engineering establishment, along with members of the business community and journalism world, have joined the ScienceDebate2008 initiative (*1*), a collective call for the U.S. presidential candidates to engage in a public debate on science and technology policy. The need for such a debate could not be more obvious; on issues ranging from the environment to medicine and health, reliable scientific information is fundamental to good policy-making (*2*). At the same time, scientific research and technological innovations fuel economic growth and ensure national competitiveness (*3*). It has been widely argued that climate change and economic competitiveness as they relate to science and technology are among the most critical challenges facing the United States (*3*, *4*). However, we rarely hear any detailed discussion of these issues from the presidential candidates.

The extraordinary speed at which ScienceDebate2008 became a national cause célèbre demonstrates that the U.S. scientific establishment can be quickly organized when motivated. Within weeks, the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, the American Association for the Advancement of Science, the Council on Competitiveness, dozens of Nobel laureates and presidents of major universities, former presidential science advisers, and thousands of distinguished scientists, engineers, and concerned citizens joined the effort. We see this as strong evidence that the U.S. science community has been yearning for a stronger voice during an administration that has been repeatedly criticized by scientists (*5*).

Among the motivations we have heard for taking up this cause are the following: continuing inaccurate media coverage, poor science education, widespread public science illiteracy (*6*), flat funding and/or cutbacks to research funding and consequent contraction of opportunity, lack of credible public policy response to climate change and other environmental issues, and governmental suppression of science information. In a climate of declining support for science, the United States risks losing its competitive advantage to emerging science superpowers. Although science and engineering have been responsible for half of U.S. economic growth over the past half-century (*3*), by 2010, according to some estimates, 90% of all scientists and engineers will live in Asia (*7*).

Our economy depends on the ability to innovate, these supporters argue, which in turn relies on a strong foundation of government investment in research and education, yet such federal investments are shrinking as a share of the U.S. economy (*8*). Concurrently, nations such as China and South Korea are boosting governmental support of research by 10% or more annually. At the same time, the absent U.S. response to the overwhelming conclusions of the Intergovernmental Panel on Climate Change (IPCC) has caused widespread concern over continued planetary viability. U.S. science has continually found itself frustrated by developments at the intersection with politics and society and now appears ready—as demonstrated by the response to this initiative—for a far greater investment of resources in public outreach.

ScienceDebate2008 might not have emerged if not for the collective efforts of individuals largely outside of science. Two screenwriters, a journalist, a philosopher, and two scientists built a bipartisan coalition of leaders in government, in academia, and among journalists and the religious and business establishments. The initial announcement came not from the major media (which initially paid little attention), but rather via the organization of a large coalition of science bloggers and other Web-based forums, such as the launch of a page on Facebook.com, coupled with a robust Web presence that tracks daily progress. At a time when scientists are greatly dissatisfied with increasingly fragmented media and their moribund treatment of science (*9*), "netroots" efforts provide a new means of outreach. Future initiatives to bring science into a closer relationship with society and the public may benefit from a similar approach.

A science debate among presidential candidates has not yet occurred. There are several dates when such a debate could take place; as of this writing, none have been agreed to by the candidates. After a decade of what could be seen as antiscience in our nation's public discourse, and in a mainstream media culture more suited to sound bites than paragraphs, politicians are understandably reluctant to engage. But that reluctance is the very reason for this effort and for similar efforts. In an increasingly scientific world, science will become ever more intertwined with policy issues. Scientists must embrace every opportunity to engage in broader public discourse as ambassadors, popularizers, inspirers, educators, and, especially, policy-makers.

Our primary mission, to raise the profile of science in our national dialogue and in the minds of policy-makers and the public, remains. The effort has made the candidates aware of how critical science policy issues are in our global society whether they show the courage to debate them or not, and their response to this initiative will be on record and will form a basis for future development. Looking ahead, the science debate initiative may provide a means of injecting science into political discourse in the next cycle of congressional races and the presidential race of 2012.

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