

Why won't the candidates debate science?

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Despite encouraging direct references to science and technology within speeches delivered at the Democratic National Convention in Denver, the two leading U.S. Presidential candidates still have not engaged in any head-on debate about science.

Gasoline prices remain painfully high, and 39 states are now bracing for water shortages, yet critical questions vital to human well-being have so far failed to grab much of the national limelight.

American voters have been able to watch candidates debate an array of issues ranging from domestic and foreign policy to faith, but not science and technology - that twin economic engine responsible for half of America's growth since World War II.

In Colorado, in particular, recent advances have included the discovery that RNA can act as a catalyst in living cells - a breakthrough that might someday support additional disease-fighting strategies - modern laser-based analysis tools, and new insights to the properties of condensates made from super-cold atoms.

U.S. competitiveness, and our ability to contribute innovative solutions to pressing world problems is now clearly in jeopardy as fewer U.S. students pursue science and technology careers, middle-aged researchers retire in droves, and international students increasingly return home to find jobs.

Sadly, 50 years since the beeping of a Soviet

satellite called Sputnik triggered a frenzy of U.S. efforts to excel at science and technology, complacency has replaced that enthusiasm.

American voters are well aware of this looming crisis: In a Research!America poll by Harris Interactive, 85 percent of Americans, including Republicans and Democrats alike, agreed that Presidential candidates should participate in a science debate.

Another survey by Lake Research confirmed that most voters want candidates who invest federal resources toward improving health care, combating climate change and improving science education for all students.

To provide voters with the answers that they deserve, the Scientists & Engineers for America (SEA) group has set up a Web site, www.innovation2008.org, where candidates can submit responses to a questionnaire compiled by leading scientific societies. Voters can submit science questions, too, and check back for answers.

The days of Thomas Jefferson - a scientist-statesman without peer in U.S. history - are long gone. But modern candidates should still be prepared to address tough issues at the intersection of science and society.

As a start toward substantive national debate, the SEA proposes seven key issues that all Congressional candidates should answer, outlined here below.

Education - A comparison of 15-year-olds in 30 wealthy nations found that average science scores among U.S. students ranked 17th, while average math scores ranked 24th. What role should the federal government play in preparing K-12 students to meet 21st-century math and science challenges? In addition, what steps would you propose to help ensure that U.S. science education is the best it can be, and accessible to all students who wish to pursue it?

Water - Most states, including of course those served by the Colorado River Basin, now expect some level of water shortage over the next decade. What policies would you support to meet the demand for water?

Innovation - Given the link between scientific and technological advances and economic development, how would you boost America's ability to help solve urgent global problems

Climate Change - Leading scientists from 130 countries found that human-caused global climate change is "unequivocal." What are your views on a cap-and-trade system, a carbon tax, increased fuel-economy standards, further research, or other options?

Energy - How would you help the United States meet the demand for energy while ensuring an economically and environmentally sustainable future?

Health Care - Many Americans are increasingly concerned with the cost, quality and availability of health care. How can science, research and technology contribute toward improved health and quality-of-life?

Research - Science and engineering research are critical to national goals, but Congress likely faces spending constraints. What priority would you give to basic-research investment?

Voters who want to know what the Presidential candidates have said so far about science and technology can visit election2008.aaas.org

Then log onto www.innovation2008.org to submit a question, or to look for candidates' answers.

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