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## Candidates address world of technology

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by [Lawrence Krauss](#) - Sept. 21, 2008 12:00 AM  
Arizona State University

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When most people mention the word "science," if they ever mention it at all, the word "politics" rarely follows in the same sentence. And yet science and technology affect almost all the major challenges we face as a nation in this century:

- How can we ensure that America remains the world leader in innovation?
- What measures will we institute to address global climate change?
- How can we meet the demands for energy while ensuring an economically and environmentally sustainable future?
- How will the nation address water shortages expected in 39 states over the next decade?

The success or failure of the next presidency will depend upon the president's abilities to address pressing problems in all these areas.

So, how come we never hear them discussed on the campaign trail? This year alone the candidates have had not one, but two major forums on "faith," but not a single forum on science-and-technology policy.

Last year, in a study quoted by the *Boston Globe*, the major television networks asked the presidential candidates 2,679 questions. Of these, only three were about global warming, the same number that were asked about UFOs.

Concern about the lack of attention being paid to the important questions of substance that will help determine our health, livelihood and security in the next generation has spread well beyond the scientific community itself.

Since December 2007, when I joined two screenwriters, a journalist and a science blogger in an unlikely coalition to make a public call for a Presidential Debate on Science and Technology, a virtual tsunami of popular support was unleashed.

Within two months, the presidents of all major universities, the National Academies of Science and Engineering, the Institute of Medicine, the Council on Competitiveness, media groups, and government and business leaders joined our call.

The groups who signed on as sponsors now represent more than 100 million Americans.

A Presidential Debate on Science and Technology issues would not be a scientific quiz. The issues would, in fact, be the very issues that the candidates should be talking about and the media should be focusing on - instead of whether Barack Obama and Paris Hilton share a common and inappropriate celebrity or whether the number of John McCain's houses should be an important factor to consider in his fitness for the presidency.

The major factor driving the current presidential race is the economy. Yet about half the nation's growth in GDP per capita during the past half-century can be attributed to

scientific and engineering achievements, for example, and public investments in science and technology have produced annualized societal returns that range from 20 to 67 percent.

But adjusted for inflation, the United States spent about a fifth less on research in 2000 than it did 15 years before, while U.S. companies spent three times more on litigation than on research.

In April, we had the backing of the Franklin Institute and associated media to host a presidential debate in Philadelphia during the Pennsylvania primary, and it looked like such a debate might actually happen. Unfortunately, however, the candidates chose instead to have a debate on issues of faith that week and, indeed, once again chose to appear in a "faith forum" rather than a science-and-technology forum.

Despite the fact that 85 percent of the U.S. public, when polled, want presidential candidates to debate science-and-technology issues, at this point there has been no such debate and the candidates apparently do not see any advantage in having one.

Whatever the causes for this, we are continuing our commitment to try to keep these substantive issues as a part of this campaign and have submitted 14 questions to both candidates, culled from the 37,000 questions submitted to us.

Both campaigns have answered the 14 questions and are available at [www.sciencedebate2008.com](http://www.sciencedebate2008.com).

Five key questions chosen by *The Arizona Republic* are included in today's Viewpoints.

This effort to inject substance into the presidential campaign should not end with this election.

As long as the media and the candidates continue to focus on feel-good non-issues, instead of real policy forums, we should not be surprised if the shallowness of the government we elect matches that of the campaigns they wage to get our votes.

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