

Des Moines Register

President must lead way in discussing costs, risks

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SPECIAL TO THE REGISTER

On an early autumn day in 1859, a little more than a year before he was elected president, Abraham Lincoln was in Milwaukee to give a speech to a farmer's group at the Wisconsin State Fair. As he was warming up the crowd, he playfully wondered why he had been invited, noting that he was "in some sort a politician and in no sort a farmer."

But when he got down to business, he delivered an address that insightfully covered the range of agricultural science — cultivation techniques, the economics of productivity, the virtue of sustainability, the potential value and downside of steam-driven plows, even the psychology of farming.

Today, two things seem striking about Lincoln's address: his comfort in talking about scientific and technological issues of concern to his audience, and the lack of such thoughtful discussion thus far in the 2008 presidential campaign.

We use our presidential campaigns to assess candidates' vision in economic matters, domestic policy, national security and global affairs. As we embark on a century of unprecedented scientific discovery and technological development, the campaign also should help us gauge the candidates' readiness to lead as we negotiate the opportunities and challenges ahead.

Many critical issues for Iowans — and voters nationwide — have a scientific component. In many communities, we're already seeing evidence of harmful climate change. To reduce our use of fossil fuels that contribute to climate change, we will need new energy sources and technologies. High-tech defense systems are vital to national security. And to prepare our nation for intense global competition in the century ahead, we must find better ways to educate our children so they can be full participants in the high-tech work force of the future.

These issues are inseparable from social, economic and foreign policy. And while some of the candidates have developed detailed positions on science and technology, their ideas get little play in the campaign.

The debates offer a good index: In the 11 we've seen so far — including the recent two in Des Moines — the treatment of science-related issues has ranged from superficial to non-existent.

In May, one science issue — evolution — did emerge briefly to make headlines. Certainly it's helpful to know that a few candidates don't be-

lieve in this proven and verified science, but even that tells us little about how the field of candidates would use education to inspire new generations of scientists and engineers.

Meanwhile, other issues — fascinating, complex, life-altering issues — never get a mention.

Some experts have predicted that computer speeds will increase a billion times in coming decades, creating almost unimaginable possibilities in



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fields ranging from medical care and robotics to manufacturing and education. Nanotechnology — the science of creating microscopic machines comprised of a few molecules

— could create a new industrial revolution. Nano-implants in human brains may allow us to network directly with computers. Breakthroughs in medical research will help cure many diseases and could dramatically extend our lives.

But these promising developments would not be cost- or risk-free. We need to be talking about such issues now, so we can shape coming breakthroughs to our best advantage.

Many elected officials from both parties in Congress understand this; they've introduced ambitious bills to deal with energy needs, climate change and stem-cell research. Polls show that the public, too, is deeply concerned about the climate, energy, and education.

President Thomas Jefferson, in the early days of the 19th century, was an accomplished inventor with broad knowledge of botany, paleontology, astronomy, anthropology and other fields. We're not likely to find such a scientist-statesman today, but for those who would lead us in this century of science and technology, comfort with science is a necessary virtue.

The president, more than any figure in our culture, is in a position to lead an ongoing public discussion about critical science-related issues. Lincoln knew the necessity of taking the long view. "You cannot escape the responsibility for tomorrow by evading it today," he famously said. We need to hear, in detail, what the candidates think about these issues. Sound bites just aren't enough.

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