BUSH IS FOR TECHNOLOGY; KERRY IS FOR SCIENCE:

The top science priorities of President George W. Bush and Sen. John F. Kerry -- at least those reported in a recent issue of Science -- have one thing in common. Both sidestep socially volatile issues such as cloning, abortion and climate change. Apart from that similarity, however, the candidates' science priorities are as different in style and substance as the rest of their campaign rhetoric. The clear differences helped me make up my mind.

When I say top priorities, I mean those given in writing to the editors and staff writers of America's most prestigious science journal, published by the nonpartisan American Association for the Advancement of Science. This past summer, the journal's editors asked both candidates: "What are your top three priorities in science and technology?" Here's what each answered according to the Oct. 1 issue:

Bush indicated that his first priority is to "ensure every American has access to affordable broadband by 2007." His second priority is to "perform next-generation hydrogen research." His third is to "recruit science and technology to combat terrorism." My translation is that the Bush campaign believes the following: Easy access to electronic information will be the key to education, recreation and empowering our national economy; energy is a serious problem, requiring major investment in better technologies; and the battle against terrorism needs scientists as well as soldiers.

Kerry stated his three priorities as follows: "First, I will restore and sustain the pre-eminence of American science and technology. ... Second, John Edwards and I will work to ensure that Americans are prepared for the jobs of the future, jobs that depend increasingly on a grasp of science, engineering and mathematics. ... Third, I will ensure that all decisions made by my administration will be informed by the best possible science and technology advice." My translation is that the Kerry campaign believes that basic science gives rise to technological advances, which gives us good things; American citizens must "grasp" science, meaning we need better science education and career opportunities; and an administration should listen to scientific advice regardless of whether it matches its political agenda.

Bush is very specific, emphasizing the Internet, hydrogen fuels and new tools in the fight against terrorism. His subtext is about economic expansion, energy independence and minimizing terrorism. Kerry is more general, emphasizing basic research, a push toward science and technology careers, and a policy that would be open to external criticism. His subtext is about openness with respect to research funding (including stem cells), the release of all unclassified research findings, and science education.

Abstracting the contrast between the candidates one step further, I note that Bush's "three top priorities for science and technology" lean toward technology. Kerry's, in contrast, lean toward science. Both endeavors are like ballroom dance partners that have been moving in lockstep since the dawn of prehistory. Though both partners are important, science always leads. This is why the phrase "science and technology" rolls off our tongues more easily than the phrase "technology and science." Saying that science leads technology is another way of saying that thinking and understanding must precede inventing and building. The newest tool from any age -- whether a million-year-old hand ax or a surgical nano-robot -- must be conceived in our minds before it can be created or used. New ideas lead to new tools, which lead to newer ways of doing science, which lead to even newer tools in an endless succession of dance steps that move faster and faster toward the future.
If you are an undecided voter, I recommend you take a few moments to judge the dance now taking place between science and technology. Though I am an independent voter, and though I recognize strengths and weaknesses in both candidates, I plan to vote for the partner who will lead with ideas rather than tools. On Nov. 2, I will cast my vote for Kerry. And I won't be voting alone on this issue. The majority of America's scientists (including at least 48 Nobel laureates), concerned that science is being misunderstood or simply ignored by the current administration, will likely be casting their votes with me, too.