Is Politics Becoming Irrelevant?

By Shari Cohen

I have been trying to figure out why I am so uninterested in the current presidential campaign. As a political scientist, I am supposedly sophisticated about and fascinated by politics. I am committed to the public good and interested in enhancing responsible citizenship. Yet I barely read the stories about the campaign in the newspaper. I am not the educated citizen I should be. I could easily be labeled apathetic.

But this is not the whole story. I now read the business section (for reasons other than the fact that I own stocks). I read about trends in the dot.com world. I read about technology. While I worry that perhaps I am just trendy, I think I am responding to an important shift in the importance of government in addressing the major challenges to our society. Government is becoming a less significant agent of change and less clearly the arena in which the critical issues of the day are going to be addressed.

Take the issues discussed in the article called "Why the future doesn't need us" by Bill Joy, chief technologist of Sun Microsystems. The article appeared a few weeks ago on the cover of Wired magazine. It is a call to arms of sorts, comparing the potential misuse of new and rapidly developing technologies such as robotics, genetic engineering and nano-technology to the development of the atomic bomb (note: my computer does not recognize the prefix 'nano' yet). Like the atomic scientists at Los Alamos in the 1940s, the scientists developing today's cutting-edge technologies are pulled along by the elegance, excitement and power of their discoveries. But they are, according to Joy, insufficiently aware of, and maybe insufficiently powerful to do anything about, the dangerous aspects of these technologies which are also life-enhancing in significant ways. "Failing to understand the consequences of our inventions while we are in the rapture of discovery and innovation seems to be a common fault of scientists and technologists; we have long been driven by the overarching desire to know that is the nature of science's quest, not stopping to notice that the progress to newer and more powerful technologies can take on a life of its own."

What are these technologies and what threats do they pose?

Coming advances in computer power might make possible, by the year 2030, the development of intelligent robots that eventually could make evolved copies of themselves. We may develop the ability to download our consciousness into our technology, thereby achieving near immortality. According to Joy, we "may be working to create tools which will enable the construction of the technology that

may replace our species." The ups and downs of genetic engineering -- particularly cloning -- are better known. Nano-technology involves the manipulation of matter at the molecular level; among its far-reaching possible effects are a cure for cancer and other medical breakthroughs. At the same time, this technology can get out of control, wreaking havoc on the biosphere.

In comparing the threat posed by these technologies to technologies of the past such as the atomic bomb, Joy says that "robots, engineered organisms and nanobots share a dangerous amplifying factor: they can self-replicate. A bomb is blown up only once - but one bot can become many and quickly get out of control."

Another new threat is the fact that these technologies are easily transferable, and can be developed and used by individuals and small groups. Nuclear, biological and chemical weaponry are harder for terrorists or a single individual to obtain. Anyone can find the blueprints to build a basic bomb, but it is difficult to acquire plutonium. It is also difficult to create the delivery technology for nuclear weapons. The production of chemical and biological weapons requires fairly large-scale facilities.

Third, these technologies are all dual use technologies: unlike the bomb, they are clearly being developed within the commercial sector. Their striking benefits drive their development, making it difficult to pay attention to their costs. But they also have clear dangers and potential military applications.

Related to the last point, the fact that they are being developed in the commercial sector means that they are less subject to regulation than were nuclear technologies. Nuclear technologies were developed in national labs and ultimately the development of these technologies was subject to some sort of process of accountability, even though the military and related industries were able to drive the nuclear arms race forward.

Joy asks in his article where the ethical basis for dealing with these technologies will come from. Clearly, at least so far, these kinds of issues, so fundamental to our future, are not topics of public debate, let alone part of the presidential campaign. The campaign tends to be dominated by bread and butter and shorter term, more familiar and obviously important issues such as health care and farm subsidies. It is unlikely that any of the candidates would be up to the challenge of addressing the challenges posed by new technologies. The government's role in technological development has been mainly, as in the recent Microsoft decision, to protect technological innovation. Or the government has imposed restrictions on the sale of certain powerful computers to potential military opponents such as Russia.

But government must take on a third role in the face of these new technologies, that of a provider of public goods. Government provides those benefits, such as

highways or clean air, that all can use, which no individual can provide for himself. Without government playing this role, no one (in this case scientists propelled by the quest for truth, and businessmen interested in increased fortunes) has the incentive to impose restraints and to stop the forward motion of unfettered technological development. In this case, the public good would be focusing national attention on the human costs of certain rapidly developing technologies.

While scientists can try to put a check on themselves, and alert the public to the dangers of new technologies, other professionals involved in driving forward the development of these technologies and their applications, and ordinary citizens will have to push for the necessary regulations. Where will the motivation come from? Bill Joy suggests developing a "habit" of relinquishing dangerous technologies. But is this enough?

Really the issue at stake here, as was the case with the development of the atomic bomb, is the responsible use of human power -- of technological power. Attention to this is both easier and more difficult than it was when the bomb was being developed. World War II and the possible development of atomic weaponry by the Nazis drove forward the work of the atomic scientists. The control of the technology was more difficult to check because of the emerging conflict with the Soviets and the fact that the use of the weapon was clearly military; it was possible to constantly evoke the national security imperative. On the other hand, the military danger of nuclear annihilation was clear and could easily inspire anti-nuclear and peace activists. As Bill Joy points out, here we are being driven forward by "our habits, our desires, our economic system, and our competitive need to know." There is little military threat to which we are responding -- only an ever more competitive market, generating ever more wealth. So the challenge is how to use, and how to place limits on, power when war and peace are not the issues.

It is imperative that Jews take a leading role in articulating the ethical concerns that arise from these nearly miraculous technological developments. If we do not, Jewishness, like American electoral politics, will become increasingly irrelevant to the major developments of our time. More important, if we do not, the market and the drive to know may not be checked by other human concerns.