Three years ago, in my first The Profession essay (“Fashioning a Foundation for the Computing Profession,” July 2000, pp. 97-98), I laid out what I considered this column’s proper concerns. Recently, some readers have questioned the propriety of some essays I have written, finding particular fault with my treatment of political issues. Several readers questioned whether political issues should be treated at all in an IEEE Computer Society publication.

This controversy has prompted me to revisit the topic of what it means to be a computing professional, what such a professional should be concerned with, and what The Profession should be about.

**WHAT IS A PROFESSIONAL?**

The problem with the term professional is that it has two main contrasting meanings. First, we have those professionals who do for money that which others might do for pleasure or personal improvement: musicians, athletes, or photographers, for example.

The other kind of professional belongs to a learned profession such as medicine, law, or engineering. Their particular education and experience—and often their membership in a professional institution—empowers them to practice their profession.

When discussing professionals, we must distinguish them from technicians. Typically, professionals provide advice and guidance. Technicians exploit technology for others—often professionals. Opinions and judgments are professionals’ stock in trade, while technicians rely on skills and techniques. The two roles complement each other, but exhibit important differences:

- Technicians focus on making something work properly. They directly apply their skills and knowledge to machines and processes to make them run and keep them running.
- Professionals focus on predicting the outcome of decisions under new or varying circumstances so that the more beneficial alternatives can be selected or so that better machines and processes can be developed. Professionals arrive at their opinions and judgments by applying their education and experience to rational analysis and argument.

Therefore, those who participate in activities such as writing articles or essays for professional publications or commenting on such articles or essays should display rational analysis or argument. In the essays I write for The Profession I try to be as rational and factual as possible, and I feel other contributors do the same.

Unhappily, not all readers display this professionalism when commenting on essays in The Profession. This is particularly the case when the topic is one close to people’s daily lives. Thus, I still receive e-mail messages prompted by my essay on terrorism (“Terrorism, Technology, and the Profession,” Nov. 2001, pp. 136, 134-135) that accuse me of antisemitism.

The trigger for this accusation appears to be that I cited a list of US actions in the Middle East, compiled by a Middle East expert, that aid “Those who wish to make trouble … to depict the US as the villain.” Among the seven items I paraphrased was “ongoing military and financial support for Israel.” Nowhere else did I mention Israel, Judaism, or Jewry, although I did argue that “Religion, like technology, is inherently neutral.”

In a quite recent e-mail message about this essay, another reader told me that “I can’t imagine what moved you to write such a stupid, ignorant article or why you think a professional magazine should be an outlet for your political and social fantasies.” Yet he failed to mention any specific error I had made. Indeed, a rereading of my essay suggests to me that subsequent events have supported rather than refuted my analysis.

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Clearly, such readers are not using rational analysis and argument when reacting to what they read in The Profession.

WHAT DOES POLITICAL MEAN?
A more sober comment from a reader reacting to my “The Profession and the World” column (Nov. 2002, pp. 116, 114-115) raised a matter of principle. This reader wrote quite dispassionately that “Computer is not the correct forum for what, in my opinion, are political or ideological views having no preferential connection to the engineering profession.”

By way of contrast, responding to a clarification of that same essay (“Letters to the Editor,” Feb. 2003, pp. 6-7) in which I gave a specific example of how greed could reduce the value of money, another reader simply dismissed the example as “spouting discredited ideas from Marx or Mao.”

First, a secondary point. In my view, the computing profession is preferentially connected to any activity in which digital technology plays a prominent role, and the widespread adoption of that technology means that this preferential connection is widespread.

But my primary point is that the word political is ambiguous.

On the one hand, politics refers to the highly human social behavior reflected in phrases such as “office politics” and “marital politics” at one end of a behavioral spectrum and by “party politics” at the other. Such activities are more ethology than politics proper. They mainly concern computing professionals through their effect on any system design and implementation—that is, as context rather than as subject matter.

On the other hand, the Oxford English Dictionary strictly defines politics as “the science dealing with the form, organization, and administration of a state or part of one, and the regulation of its relations with other states.” This is a different matter altogether, a matter relating to one of the major components—arguably the most important one—of our civil lives. But why should computing professionals concern themselves with such matters? Why should they be political?

WHY BE POLITICAL?
In my first The Profession essay, I argued that “a profession has a primary responsibility to the community that the profession’s effect on it be a benevolent one,” and gave reasons that no reader disputed at the time: The community gives learned professions rights and privileges and thus they owe the community certain duties and responsibilities.

Being a benefit to the community is a responsibility generally accepted by professional institutions everywhere. This primary responsibility requires us to look beyond the technical results to consider the longer-term, wider-scope social and political effects of what we do when we apply our professional knowledge and experience. If we can plausibly apply our technology in ways that would better the community, we should argue loudly for doing so. We run into difficulties, however, when we try to evaluate exactly what would constitute “better.”

Suppose that, as a systems engineer, I study the system of corporations, these entities being the most significant feature of successful modern economies. Suppose I determine that the corporate system’s downside stems from its technologically enabled complexity, the intricacies of cross-ownership that lets money be laundered, laws and taxation avoided, and assets hidden—this is all supposition, remember. It occurs to me that the structure could be simplified by forbidding any corporation from owning part of any corporation that owns part of any another corporation—or, more succinctly, by limiting corporate ownership to two levels.

If I then publish details of this scheme, explaining and comparing both the benefits and drawbacks of the two systems, that would be quite professional. It would also be political, in the strict sense. If another systems engineer rationally disputed my analysis, that, too, would be quite professional.

A salient issue here is the basis on which I compare the two systems’ benefits and drawbacks, as I need some comparison to justify talking about the alternative system at all. There must be at least some subjective component to such a comparison, most benefits being unquantifiable, but it would be professional to make that component as small as possible.

Also, it remains open for someone to claim, for example, that to let government apply regulation of this kind—limiting the powers of corporations—is improper. Such a claim moves us into the realm of ideology and party politics, and it would not be professional for me to argue for or against it as a systems engineer. Further, it would be questionable for me to dispute it as a citizen once I have opened the topic in a professional role.

I have chosen this fairly abstruse example to illustrate the professional issues. My actual experience in The Profession is a little more involved.

On one hand, I have twice written on electoral processes (Feb. 2001, pp. 128, 126-127; Feb. 2002, pp. 120, 118-119), and no reader complained that either essay should not have been published. On the other hand, the essays on terrorism and global inequality have drawn allegations of professional impropriety. Why the different reactions?

The protest-free essays examine bureaucratic process, topics that make it difficult to infer any ideological bias on my part. The other two address topics ordinarily steeped in ideology. Yet I believe computing professionals must consider all such topics equally impor-
be able to buy it. This is real freedom, the freedom for a person—or a nation—to make a living.

Nobody, except perhaps an ethicist or philosopher or grammarian, can argue with this assertion professionally. A US citizen has a right to argue with it as a US citizen, but not as a computing professional. A computing professional might analyze how well it is being applied, or suggest how it might be better applied, but those two roles must be kept separate.

Does this mean we members of the IEEE Computer Society can have no dogma? It does not. Professional institutions are based on dogmata that they require their members to adopt and that they spell out in, for example, codes of ethics or conduct. These codes typically require separating professional acts from civil political acts.

More importantly, behind these codes—as one reader spelled out in an e-mail message—lie for us the IEEE Vision and the IEEE Mission (www.ieee.org/organizations/corporate/vision.htm). The Vision urges us “to advance global prosperity by fostering technological innovation, enabling members’ careers and promoting community worldwide.” The mission asserts that “The IEEE promotes the engineering process of creating, developing, integrating, sharing, and applying knowledge about electro and information technologies for the benefit of mankind and the profession.”

WHAT IS RATIONAL?

My advocacy of rational argument does not make me blind to its inherent weakness. For, while rational argument must always be consistent with the facts, it can never be based on facts alone. Behind every argument somewhere sits an axiom, a dogma.

In politics, for example, US President George W. Bush laid down dogma in September 2002, citing “a moral principle,” in The National Security Strategy of the United States of America (www.whitehouse.gov/nsc/nssall.html; Section VI): “If you can make something that others value, you should be able to sell it to them. If others make something that you value, you should be able to buy it. This is real freedom, the freedom for a person—or a nation—to make a living.”

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romoting community and technology for the benefit of mankind is political activity. Thus, as professionals we are required to be political. ■

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