

From the Editor



To Innovate Education

The word "education" never fails to strike a chord, particularly with those of us having school or college-going children. But education ought to be a concern for *everyone*, regardless of whether he/she is a parent, professional, or professor. It is regarded as the wellspring of innovation and innovation creates a more productive, prosperous, mobile, and healthy society. Education obviously extends beyond the classroom, and indeed, its dearth can lead to many of the problems that hamper harmonious living within a given society (e.g., racism, lack of tolerance). Education truly unlocks the gates of the human mind and imagination. Given that education and innovation fuel a nation's economy and mitigate many societal problems, it should hardly be surprising that much has been written and said about how we can improve the quality of education in our schools, colleges, and universities. Always a popular election year topic and beyond the political rhetoric and hype ("No Politician Left Behind"), employers and the public are expressing an unprecedented level of concern with the state of education, especially as it relates to technological competitiveness in an increasingly global playing field.

While some science-based professions (e.g., forensics, medicine) prove to be immensely popular amongst students, no doubt due to the popularity of related television shows, most youngsters, especially in western nations, would rather pursue a career in law or business than become a chemist or an engineer. Is this trend driven by financial remuneration or have we done a rather poor job of conveying the importance and excitement of what we do? It is reassuring to see recent discussions and analyses on this topic (e.g., *Chemistry & Engineering News*, July 10, 2006, p. 8; *Science*, **312**, 1143, 2006) and hopefully we will have answers soon. In our own household, our older child was not drawn to either chemistry or medicine (like her parents were) but we are hopeful that our sixteen-year old will opt for a science-related career instead!

Two landmark reports represent "must reads" for anyone interested in this topic. Some twenty years ago, *A Nation at Risk* (1983) identified five "new basics" to be included in high school graduation requirements. This report raised the awareness of systemic problems with the educational system in this country, although the root causes of poor student performance and lack of preparedness for higher education, especially as they relate to improving teacher quality, training, and remuneration levels, have not been fully addressed to this day. The more recent report of the National Academies, *Rising Above the Gathering Storm*, also stresses the importance of improving K-12 math and science education. Other useful reports (e.g., *A Retrospective on Twenty Years of Education Technology Policy*), many of which can be accessed from the U.S. Department of Education (www.ed.gov) website, provide overviews and analyses of specific aspects of education reforms. The notion of making basic education and technology accessible to the masses in the less-developed parts of the world is also rapidly gaining currency. Initiatives such as Science Across the World (SAW) (www.scienceacross.org) and One Laptop per Child (*Business Week*, July 3, 2006, p. 63) are laudable in this regard.

This issue of the magazine highlights what ECS and its members are doing in the realm of education. Stu Adler deserves kudos for putting together much of the contents of this issue with able assistance from Dan Schwartz. Stay tuned.

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Editor

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INTERFACE

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