

## ACS Presidential Election

Educational Sustainability:  
Critical Thinking for Challenging Times

by Mary Virginia Orna

The tectonic plates of culture expressed by a paradigm shift from a modern to a postmodern mindset are grinding and shaking beneath our feet right now. And in no sector of human endeavor is it more obvious than in the area of education. What is emerging is the green edge of innovative thought, not a new model or structure, but a conversation that gets people thinking in new ways about models and structures—about thinking in terms of sustainability.

What is sustainability? Typically, it means meeting the needs of today without compromising our ability to meet the needs of future generations. Applied to education, we have to keep our eye on the present state of education, but also be looking at how we can carry out our educational mission in the future when we don't even know what the future will bring.

The ACS Strategic Plan (<http://www.acs.org/strategicplan>; accessed Jul 2009) seeks to address a future peopled by youth that has embraced a Web-based culture that communicates mainly by text-messages and Twitter, and by adults who are barely scientifically literate. How does one communicate science in ways understandable and meaningful to both of these groups?

One possibility for addressing this issue is trend-spotting. This strategy is being used successfully by large public relations and marketing firms in order to identify some of the big trends that are changing everything from consumerism to the business landscape throughout the modern world. If we consider those we seek to educate as “consumers,” we can seek to make sense of the world of education by realizing that the media is the environment of both distraction and attraction—a challenge and an opportunity—that technology in its new and evolving forms is here to stay, and that judging from the popularity of The History Channel, people are eager to learn from lessons from the past.

A more global possibility is the use of a “business” model that acknowledges that the paradigm shift we are experiencing demands a new way of looking at, and therefore interacting with, those whose education is in our hands. Schopenhauer put it succinctly: “The task is not so much to see what no one has yet seen, but to think what nobody has yet thought about that which everybody sees.” If we view our members, our students, the members of the public as neither a cost (therefore to be minimized) nor an asset (therefore to be used) but a talent (therefore to be inspired), then a real paradigm shift will have occurred—we will have thought what no one else has thought!

The consequences for educators are profound but so too are the changes and challenges that will flow for our institutions. In the new paradigm, educators must look at those they are seeking

to educate as individuals in search of meaning and driven by a deep-seated drive to self-actualization—the desire to be the best at what one does—despite all the appearances to the contrary. Our challenge: to unleash the talent the lies hidden in every individual.

I have great hopes that the new Board–Presidential Task Force on Education framed with the vision of

“What is it that the world's largest scientific society can do to advance chemistry and science education that no other entity can do?” will take to heart the necessity of educational sustainability in the changing world I have described above. I have hope that the lessons learned from the educational Presidential symposia held at the Washington, DC, meeting this past August will find their way into models and structures capable of the flexibility necessary for adapting to an ever-changing environment. I have hope that the revolutionary trends in the job market and public sector will be addressed by the way in which our chemistry curricula are designed.

If I am elected President, I promise you that we will become the deepest and broadest educational think-and-DO tank in the world. We can't afford to do otherwise. We have people out there who will soon hold jobs that have not yet been invented. We have a public out there that will be making decisions about issues that we cannot now imagine. Education is our ACS mission—in three dimensions—at every level, in every sphere, for everyone. Let us use our vast leverage to make sure that chemical education is universally focused, appropriate for each level and each audience, flexible, in tune with the changing times, and at the frontier of new science.

Please visit “Endorsements” and “About Me” at <http://www.maryvirginiaorna.net> (accessed Jul 2009) to verify the qualifications I have to accomplish what I have promised.



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