

Looking Back, Looking Around, and Looking Ahead

Bassam Z. Shakhashiri*

My thanks to Editor **Paul Rillema** for inviting me to write this guest editorial for what I am told is the last printed *Newsletter* of the ACS Division of Chemical Education. This happenstance is ironic for I was among those who started the *Newsletter* in the 1970s when I served on the Program Committee. Then the Program Committee had four members appointed to four-year terms with the understanding that one would serve as its chair in the third year. I served from 1972 through 1975. My recollection is that the others who rotated in and out were **Robert Linnell, Jerry Bell, Norman Craig, Ed Wasserman, and Douglas Chapin**. Back then, it was the practice to send a free booklet of abstracts of the division's programs for the two national ACS meetings to every division member. I got to thinking, and others agreed, that a couple of pages could be added to the booklet with some news items such as upcoming programming at national meetings and the third and fourth biennial conferences on chemical education, a message from the chair, and the like. From our modest launch, expansion has brought us the *Newsletter* that has given us very useful information and commentary for over three decades.

Personally, I regret the decision to discontinue this *Newsletter*. Web-based announcements and networks serve purposes, but do not provide the same utility as printed material. The *Journal of Chemical Education* is a scholarly publication serving wide audiences and can provide snippets of divisional information to its readers, but the *Newsletter* provides wider communication pathways and helps in establishing connections among the membership on matters related to the division's mission and activities.

For me, the purposes of communication are: to inform, educate, engage, advocate, and persuade. I have found the printed *Newsletter* to be very informative and sometimes engaging. I would expect the same from an electronic version once I figure out when to set aside time for reading it on my computer screen or for printing a hard copy. I am one of those who attempt to spend as little time as necessary using electronic devices for non-interactive reading. I prefer reading the printed page because I can do it just about anywhere and anytime I choose without having to deal with the size of the screen or with lighting issues.

Societal changes are happening rapidly, especially in technology with its uses in communications and in education. I

appreciate the value of some of these changes and I subscribe to the view that the Internet will, in due time, revolutionize society in a manner similar to the impact and consequences of the invention of the printing press. I advocate the use of electronic technology as a tool to improve—rather than dehumanize—interactions and discourse. I am optimistic that, through creativity and ingenuity, we will choose to use technology with the care and responsibility that is in keeping with the profound purposes of education, including: enlightenment, professional and societal citizenship, advancement of knowledge, and improvement of the human condition.

The Division of Chemical Education is a major focal point within ACS for promoting excellence in education at all levels. Much progress has been made in many divisional affairs: programming activities, membership, publications, conferences, better connections with ACS, etc. There are many examples of the successful manifestations of our core values and goals for advancing chemistry education. Reaching out to involve secondary school teachers both as members and as contributors and beneficiaries is one example. Promoting safety and expanding public outreach is another good role for the division, as is its recent emphasis on the developing area of research on learning and teaching in chemistry education. This last area holds much promise for improving the quality of chemistry education in high schools and colleges. Perhaps it can be useful also in attracting science research faculty to engage more in chemistry education.

I call on members of the ACS Division of Chemical Education and its elected and appointed officers to consider and act on the following:

- Develop and implement a division initiative to increase the number of research faculty from universities and colleges as active members of the division and to offer opportunities for deeper engagement in chemistry education at all levels. This is similar to the highly successful initiative which targeted secondary school teachers beginning in the early 1980s. Faculty ranks are rich in talent and creativity and can greatly contribute to advancing chemistry education at all levels through platforms offered by the division. Our division's activities have benefitted from research chemists like Washington State's **Glenn Crosby**, Boston University's **Morton Hoffman**, and many others. One goal

*is professor of chemistry and the William T. Evjue Distinguished Chair for the Wisconsin Idea; director, Wisconsin Initiative for Science Literacy; Department of Chemistry, University of Wisconsin-Madison (bassam@chem.wisc.edu); served as 1981 chair, ACS Division of Chemical Education; currently serves as 2011 ACS president-elect.

of this initiative would be to attract researchers like Stanford's **Richard Zare**, MIT's **Richard Schrock**, Oregon's **Geri Richmond**, Northwestern's **Tobin Marks**, Michigan's **Melanie Sanford**, Purdue's **Joseph Francisco**, Colorado's **Veronica Vaida**, Tennessee-Chattanooga's **Greg Grant**, Texas A&M's **Sherry Yennello**, the Naval Research Laboratory's **Debra Rolison**, and many others, especially younger faculty. By further engaging them in chemical education each, in turn, can become advocates for quality chemistry education in their research communities and universities.

- Focus more sharply on long-term engagement of undergraduate students, graduate students, and postdoctoral fellows in scientific areas which have significant consequences on society. One area would be aimed at helping the public understand the science of climate change. This necessarily means making sure that our own knowledge of the science is correct and deep. Other areas would include the benefits and economics of sustainability; stewardship of the environment; scientific freedom, conduct, and ethics; improving science education communications within and among various groups

concerned with advancing science and education; and fostering international cooperation and collaboration in science education in areas such as curriculum development, best teaching practices, effective use of technology, inclusiveness and diversity, etc.

- Expand and target communications with secondary and elementary school teachers and their institutions. Their roles are pivotal as they greatly influence students, parents, fellow teachers, and their community as a whole.
- Cultivate connections with local community groups in urban, suburban, and rural areas to help educate and persuade them to be receptive to supporting high quality science education initiatives and innovations.

I am fortunate to have been a member of ACS and the division for 50 years. I continue to have high hopes and expectations of myself and of you individually and collectively. I look forward to hearing from you and to furthering collaboration so we can together do our best for ACS, for science, and for society.

Thank you. ■