It is probably best that the cycles of technology have long divorced themselves from the seasons of the solar calendar—the time of seeding and harvesting that has governed human activity for most of its history. We are, after all, a global organization, so the season of reaping for part of our membership is one of sowing for another. Perhaps the end of the year is best viewed in terms of a cycle that touches the bulk of our members, the one we call the software life cycle—the one around which the Software Engineering Body of Knowledge, or SWEBOK, is organized.

By the cycles of SWEBOK, we are now in the period of assessment, the time when we look at our accomplishments to date, determine what has worked well and what has not, and prepare the ground so that the next group of leaders can specify the activities that they will need for the coming cycle, design the system, write the code, and deploy the results.

The work of the past year has been to institutionalize a number of activities that have engaged our members, to look at the state of the Society, and to ask how we can get closer to our goals. In all, three themes seem to be central to our current state: flexible communities, global membership, and building an effective role within IEEE.

COMMUNITIES
The idea that the Computer Society should be a collection of flexible communities has been in front of the Computer Society leadership for roughly eight years. As we have watched the social media’s rise, knowing full well that our members contributed to its technological underpinnings, we knew that we needed to use this technology to advance our organization. Our members are focused on solving the problems that interest them, and they need communities to help support this work. These communities can be organized around a variety of activities that support and engage our members. In creating these communities, we’ve tried to develop organizational structures that are simple, agile, flexible, and yet effective.

In January of this year, we institutionalized our Special Technical Communities (STC) program (http://www.computer.org/portal/web/stc/about), currently led by Martin Arlitt, to meet this need for flexible organizations that support our members. With roughly 18 communities in operation, the program is on track to grow rapidly in the coming years.

After testing this program for almost four years, we identified three fundamental principles for them. First, these groups should be easy to form and easy to terminate when they are no longer active. Second, they should not interfere with existing categories of products and services within the Society—for example, you can form an STC to prepare a Transactions proposal, but once the Transactions is established, the STC becomes an editorial board that reports to the Publications Board.

Finally, as our last principle, we concluded that STCs should have
no scope monopolies. This was one of the more difficult decisions, as scope monopolies seem to be a foundational idea of IEEE. However, in this case, it seemed counterproductive that a group of members should be prevented from working on some topic or be forced to join another community just because others were working on a similar idea. A Society like ours is very diverse, and each community within it could have something unique to contribute to the endeavor. This principle has generated a little controversy among groups that feel that an honest competition between two STCs might weaken one or both of them. However, it should be noted that no IEEE conference has a monopoly on any field, and indeed we see some advantages to having different groups working on the same problem.

As we accepted the no-scope-monopoly principle, we also recognized that the communities need unique names or identifiers. We want to avoid the kind of confusion that comes with having five different cloud computing conferences with almost the same name. Each STC should have a name that distinguishes it from the others, even though they are working on similar topics.

GLOBAL MEMBERSHIP

The global nature of our Society is becoming increasingly clear. Although we might never have members from all 200+ countries on Earth, we expect that our membership would be drawn from the top industrialized countries, the G-20. In fact, with few exceptions (most notably Russia, which is grossly underrepresented in the Society), the membership of the Computer Society does indeed resemble that of the G-20 countries. Furthermore, as engineering is a career often pursued by individuals working to better themselves, their family, or their region, we should expect to see a surge of members in areas with strong developing economies, such as China and India.

Indeed, during the past year, I have worked hard to strengthen our ties with these two countries, making three trips to each region. We have also invited representatives from both countries to attend our leadership meetings. We face slightly different problems: in India, we have a strong interest in the Society, but our dues are higher than any computer scientist can afford to pay; and in China, we have a more affluent potential member pool, but there is a reluctance to join organizations based outside the country. For both areas, we have attempted to reach new members by offering the membership benefits through Sister Society agreements with local organizations, such as the Computer Society of India and the China Computer Federation.

In India, we are also marketing SWEBOK and our certification programs for software development assistants and professionals (CSDA and CSDP, respectively). This effort requires us to develop a business network in the country. That network is starting to take root, and we look forward to more success in future years. Similar opportunities are emerging in China, and we will pursue them as we can.

In China, we are looking to develop Chinese-language publications. We will be launching a Chinese version of an extended Computer magazine in the coming year. It is an extended magazine because it will also include some articles from other Computer Society periodicals. We have also been providing the principle Chinese-language professional computing magazine, Communications of the China Computer Federation, with a special column in an effort to connect their members to the Society.

WORKING FOR IEEE

One of the fundamental duties of the Computer Society leadership is to work closely with IEEE. Over the past two years, we have been investing more and more energy into that relationship. Although we are obviously part of IEEE, we did not play a large role in the organization until 2008 or 2009. In fact, in the petition to form the Computer Society in 1970—a document that was recently rediscovered in our files—the founders clearly stated that they intended to operate the Society as a semi-autonomous organization.

During the past year, we sent many leaders to IEEE meetings, served on IEEE committees, and helped bridge the gap in any way we could. For example, I addressed the IEEE Eta Kappa Nu honors society, served as a consultant to the IEEE Board of Directors Strategic Planning Committee, and have done a lot of work on IT services consolidation within IEEE. These activities help us better understand what the Computer Society has to offer IEEE and how we can continue to work more closely.

IEEE policies do not always favor what we want to do, but we have seen substantial improvement in our relationship with the organization. We’ve seen more of our members involved in IEEE committees and activities. We’ve also been more engaged in IEEE initiatives.

As we have done more work with IEEE, we’ve come to appreciate the role that we play in our parent organization. We’re bringing a set of skills and a collective experience to IEEE that is needed by more and more IEEE members. Increasingly, these members are involved in projects that center on
digital technology, primarily software technology but also hardware technology. Software, of course, is central to our mission. Computer Society members are responsible for developing the engineering principles for software, for including these principles in engineering education, and for ensuring that those principles are put into practice. Time and again, as I have made the rounds of IEEE projects, I have seen individuals struggling with issues that fall within our field of interest, issues that have been addressed by our members and our activities.

At this point, I should note a fourth major theme, one that illustrates our services to the engineering community as well as the computer community. We are about to release a new version of SWEBOK. It has been a hard effort; we had hoped to release this new SWEBOK at least a year ago. But the end is in sight, and we will have it formally published by the start of 2014.

SWEBOK codifies the software life cycle—that is, the idea that dynamic entities have been carefully designed and built, deployed, assessed, and maintained. This cycle might not be a perfect metaphor for our Society, but it does provide us with steps to guide our development, activities, and leadership. For me and the group of leaders that have served with me, we are now in the assessment step, the point where we look at what we have done before we begin a new cycle of leadership. Some of the current leaders will continue to the next cycle, in which they will be led by 2014 President Dejan Milojević. They will have the chance to look at what we have done, decide what changes to make, specify how they will implement those changes, and start on the path that will begin in January. Those are our methods. That is what we do. I have been grateful to have had the opportunity to serve. And now, the Society will begin again.

In writing this final presidential message, I need to thank a large number of people. One of the humbling aspects of leadership roles is the lesson that others carry the bulk of the load. I need to thank the Executive Committee, of course, for guiding the real activities of the Society, and the Computer Society staff, who help deliver the goods and services of the Society. I also want to thank the members who served on a Society committee, attended a conference, refereed a paper, or simply supported our community with their membership. You are the ones who do the work. Thank you.

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