K.J. Ray Liu
2012–2013 SPS President
kjrliu@umd.edu

Raison d'être

First of all, I would like to extend my sincere thanks and appreciation to my predecessors Mos Kaveh and José Moura for their outstanding service to the community. Our IEEE Signal Processing Society (SPS) has much improved over the past few years under their leadership. I can only humbly stand on the shoulders of these giants to continue our journey to serve the community well.

When a group of people come together and form a society, it embodies the formal notion of a community. In doing so, the society is obligated to serve the community to the best of its ability. Indeed, this is the raison d'être of a society. I believe that the key to fulfilling our raison d'être is to serve our members well.

If we define the signal processing community as consisting of those who regularly publish in our transactions and conferences, then perhaps we are doing well by any measure. Our Society's mission is to promote the science and technology that engages the community. To do so, the SPS generates publications and organizes conferences/workshops—both reliable and traditional means of dissemination—to share its discoveries and findings. Our journals have a high-citation impact, our conferences are well attended, and the SPS finances are among the best in the IEEE. But are these enough? Should we just be satisfied and self-congratulatory?

If we further ask, how many members attend ICASSP? One would proudly say, over 2,000! How about ICIP? Loudly, over 1,000! How many papers do we publish in our journals? Also in the range of thousands! But how many total members do we have? About 15,000. So we can estimate that only about 10% of our members regularly attend our conferences and publish in our journals. Does this mean that we have been focusing on serving an elite minority?

Now, a similar, but larger, question is how many signal processing educators,

> **OUR JOURNALS HAVE A HIGH-CITATION IMPACT, OUR CONFERENCES ARE WELL ATTENDED, AND THE SPS FINANCES ARE AMONG THE BEST IN THE IEEE.**

researchers, practitioners, and students do not join SPS? Perhaps far more than 15,000. That is to say that the majority of those who are engaging in the science and education of signal processing may not attend ICASSP and ICIP regularly nor are they publishing in or reading our publications.

Then, let us challenge the traditional notion of ourselves as an elite community. When our numbers show that we are serving the elite well, we should seek opportunities to extend our community's reach to those who practice signal processing in different arenas. There are many practitioners, for instance, who are experts in their own industries and countries/regions; though they may not be engaged in the creation of new knowledge, they are contributing their ideas to real life and public education. Can we say these activities are not as important as scholarship?

If the answer is no, then we need to do some soul searching. Some may argue we are doing fine to keep the SPS elite, and why should we extend beyond our comfort zone? Well, the entire science and education dissemination chain can be viewed as a value chain that runs from the top of a small pyramid of a group whose main duty is to create original/novel ideas and results, to the middle range of developers who take concepts/ideas into some real systems, and finally to those who design products and interfaces used by millions. Only when the entire value chain comes together—when each link communicates to each other and understands each other's needs—can the top of the pyramid not be out of touch, can the developers take the right ideas/concepts into products; and can the users and students get well informed of future trends in time. In a nutshell, it benefits all segments of people.

Starting from 2010, after our major revision of our bylaws, the SPS created a new membership board as a new pillar of the SPS to engage more with our members, especially those to whom we might not have paid much attention before. We would like to extend from our current success to a broader membership to bring the entire signal processing educational and research value chain together with more communications, benefits, and services so that we can serve the community better.

After all, serving the community well is our raison d'être!

[SP]