Internationalization—A Default Virtue?

This is my last "President's Message," which marks the end of my term as president of the IEEE Control Systems Society (CSS). In my previous five articles, I have written about the value of professional societies like our CSS, presentation skills, ethics issues related to citation, the theory-practice gap illustrated with some personal stories, recognition by peers, and various other society business. While this issue of *IEEE Control Systems Magazine* concludes my tenure as president for 2013, it is still too early to summarize the whole year of the Society at the time of this writing. So I will write about an issue that concerns all of us in one way or another—internationalization and its value.

Recall that 2010 CSS President Roberto Tempo wrote about internationalization [1], and he showed the definite trend of increasing internationalization both in the CSS and also in the IEEE. The trend is now even stronger and more obvious. As I wrote in the February issue [2], less than 40% of CSS members are from the United States. From 2009 to 2013, three out of five CSS presidents were from outside of the United States, including myself. All five of the current vice presidents (VPs) were born outside of the United States, and three reside outside of the United States.

For the whole IEEE, this trend is also readily obvious. If you attend an IEEE Technical Activities Board (TAB) meeting, you will notice that many Society presidents are of non-U.S. origin, although this is in sharp contrast

(From left) Yutaka Yamamoto, Jay Farrell, Masayuki Fujita, Kirsten Morris, and Francesco Bullo at the Executive Committee meeting held at the Renaissance Washington D.C. Downtown Hotel, June 15, 2013.

to the definite U.S. resident majority of the IEEE headquarters staff.

Having said this, I would like to discuss another angle to this issue of internationalization.

A few days ago, I received an announcement that my university, Kyoto University, will hire about 100 foreign faculty members to teach basic courses in English, so that students can be more "internationalized." Now let me pose a rather blunt question: *What does this internationalization mean?* Does it mean that students can read/write/speak more fluently in English? Does it mean that they are more familiar with foreign professors so that they can acquire more communication skills?

Perhaps I should not be overly sarcastic. Certainly acquiring English communication skills constitutes an important part of making students more internationalized, but it is only a necessary step. This says nothing about communication skills in other languages, such as French, German, Italian, Russian, Japanese, Chinese, or

many others. But this again is also a side story. I often wonder if internationalization is interpreted as mere knowledge of foreign languages and the communication skills associated with them. Internationalization is more than merely the knowledge of a foreign language or languages and the associated communication skills.

I do not, by any means, take lightly the difficulty and importance of learning foreign languages. As most of us know, a language often reflects the history of the area where it was developed and also how the societies were developed there. Language can prescribe how people think, both about important issues or what their instantaneous reactions might be. A language determines, at least partly, the culture itself. Hence, learning a language entails learning some of the culture associated with that language.

Having said this, I still claim there is more to internationalization than learning another language. Let me state the conclusion first: In my view,

The June Board of Governors meeting held at the Renaissance Washington D.C. Downtown Hotel, June 16, 2013.

the true value of internationalization is in the capability to free the mind from the biased thinking of your native tongue.

Every language influences how its speakers think. Etymology can tell us many stories about how words are made and how their meanings change over time. For example, an international trip may require *quarantine*. The word quarantine is derived from an Italian word *quaranta*, meaning 40. In the 14th century, Venetians introduced the rule of isolating foreign ships suspected of carrying plague for 40 days, thereby protecting their city. The word (and idea) is now universal.

As another example, consider a sushi restaurant. Japan is surrounded by the sea, and we eat many different kinds of fish. As a result, we have developed a very rich vocabulary for fish, not only for different kinds of fish but also for many distinct parts of fish. If I take a non-Japanese friend to a sushi restaurant, I often have trouble finding a proper translation/description of what we are going to eat. Because such knowledge is so deep, it is difficult to explain to those unfamiliar with the language or culture, and it is perplexing to outsiders.

As this second example indicates, there almost always occurs an identity crisis when two cultures meet [3]. Such an encounter leads us to ponder our own ways of thinking, peculiarities,

or unconscious biases. When you travel abroad, you may have occasions where you are amazed at how differently people in different countries react to the same situation. Many of us have experienced this. It is by no means a crisis for rational minds. In fact, it can be an excellent opportunity to reconsider your own way of thinking and open your eyes to a new way of doing so.

This is in complete agreement with what I wrote about the value of belonging to a professional society like the CSS. Interaction with many individuals, most likely from different countries and different viewpoints, can develop wider perspectives for both work (research) and life, which ultimately yield ideas that would not be possible by just working by yourself in isolation.

Yutaka Yamamoto with a bust of Richard Wagner at the Richard Wagner Museum at Tribschen, Luzern (Lucerne), Switzerland.

No wonder our Society has to be internationalized! It is indeed becoming international and will be even more so in the future. The CSS offers more opportunity to be exposed to new ideas, different ways of thinking, and new opportunities. This is where the true value of internationalization lies, I think, and I am very proud that our Society has a very healthy trend of becoming international, without sacrificing the value of local and national cultures. Developing communication skills (inclusive of learning foreign languages) may constitute an important factor in internationalization, but certainly there is much more to it. Through such true internationalization, we can free ourselves from narrow-minded nationalism; appreciate other cultures better; and ultimately contribute to society through our profession, research, and personal interactions.

I hope I have successfully "closed the loop" with my columns, starting from the February issue on the value of CSS and ending with this column on internationalization, tying together the ideas of communication, personal interaction, and exchange of ideas. I believe they are the true reason that CSS has to be international and is indeed moving in that direction.

SOCIETY NEWS

Our new journal, *IEEE Transactions on Control of Network Systems*, will be launched soon. It is our first e-only journal, and I ask for your support of the journal and the CSS by subscribing to it.

Other news is the recent progress made in June by the TAB. The TAB and the IEEE have approved a new clause in the Publication Services and Products Board (PSPB) Operations manual Article 8.2.1.D.9 [4] to prohibit intentional manipulation of bibliometrics (such as impact factors). The new clause says

(From left) Prof. Rudolf Kalman, Mrs. Contantina Kalman, and Mamiko and Yutaka Yamamoto at a restaurant in Zurich, July 20, 2013.

I have benefited a great deal from the wisdom and experience shown by my predecessor Christos Cassandras, who is concluding his term as immediate past-president. I welcome Jay Farrell, who will serve as president for 2014, and wish him great success. I also welcome Ioannis Paschalidis and Magnus Egerstedt who will serve as editor-in-chief and deputy editor-in-chief, respectively, of our new *IEEE Transactions on Control of Network Systems*. I am absolutely certain the Society is in excellent hands with the new team of the Executive Committee and the Board of Governors. I would also like to note the great help I received from my friends: John Baillieul, Bruce Francis, Ted Djaferis, Frank Doyle, William Levine, Rick Middleton, Mike Polis, Tariq Samad, Roberto Tempo, Mathukumalli Vidyasagar, Jan Willems, and Stephen Yurkovich.

It has been a great privilege for me to serve as president of the CSS for 2013. While this has been the busiest year for me in the last ten, it was a genuine pleasure to be able work with many distinguished colleagues and dedicate my time and effort to the Society. *Thank you all*! I will continue to serve for the Society in 2014 as immediate past-president. You can contact me at yy@i.kyoto-u.ac.jp.

An editor or associate editor shall not perform or accept any action that has the sole purpose of increasing the number of citations to influence the bibliometric independent measures of quality or impact of a periodical.

If there is a suspected violation of this rule, a complaint can be addressed to the PSPB chair (Article 8.2.4.A.4d of the PSPB manual [4]). The CSS has been against bibliometric manipulations and has taken some action; see my message in the June issue [5]. We welcome this step by the IEEE and look forward to further developments in upholding ethical publication standards.

CLOSING, FAREWELL, AND THANKS

As I said at the beginning, this concludes my series of "President's messages," and at the end of my tenure, I would like to thank many individuals who contributed a great deal to the successful functioning of the Society, particularly members of the 2013 Executive Committee. Constant discussions with members of Executive Committee, not only through official face-to-face meetings but also through e-mails and Skype, have helped me a great deal in making decisions on many important issues. Masayuki Fujita is successfully completing his three-year service as VP for Conference Activities; his careful handling of various conference matters, not only limited to our own CDC and MSC but also concerning various other technically cosponsored conferences, is a great asset to the Society. Edwin Chong has greatly handled virtually all financial matters as VP for Financial Activities; without him, many financial problems for our new journal, *IEEE Transactions on Control of Network Systems*, would not have been resolved. Kirsten Morris has been enthusiastically serving as VP for Member Activities, and she has proposed many interesting new ideas. Francesco Bullo is VP for Publication Activities, and his hard work on various publication matters is a crucial factor in maintaining our publications in an excellent shape; my thanks also go to the editors who have done excellent work for our journals: Panos Antsaklis, Alessandro Astolfi, Richard Braatz, Thomas Parisini, and Maria Prandini. Frank Allgöwer has worked as VP for Technical Activities, and he showed great leadership in overseeing technical committees as well as being a constant source of inspiration in many aspects. Warren Dixon, director of operations, has done an excellent job in overseeing and keeping Society operations; without his dedication, the Society business would have been impossible to maintain.

REFERENCES

[1] R. Tempo, "Internationalization and globalization," *IEEE Control Syst. Mag.*, vol. 30, no. 1, pp. 9–10, 2010.
[2] Y. Yamamoto, "A renewed thought on professional societies," *IEEE Control Syst. Mag.*, vol. 33, no. 1, pp. 10–11, 2013.
[3] C. Cassandras, "A healthy identity crisis," *IEEE Control Syst. Mag.*, vol. 32, no. 1, pp. 10–14, 2012.
[4] (2013). IEEE publication services and products board operations manual [Online]. Available: http://www.ieee.org/documents/opsmanual.pdf
[5] Y. Yamamoto, "Citing others' work," *IEEE Control Syst. Mag.*, vol. 33, no. 3, pp. 12–14, 2013.

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