Journal of Mechanical Design

Editorial

A Quick View From Pacific Asia

Much has been said about the 21st Century becoming known as the Asian one. The dramatic increase of manuscript submissions to JMD particularly from China and India is testimony to the increased activity of researchers from Asia on the international scene. I was recently on a month-long trip to Japan, Taiwan, and China, in part on behalf of JMD. I also met with many researchers from South Korea, which I have visited several times in the past. I came away with a few impressions that I would like to share as they pertain to JMD, its authors, and readers. I freely admit they may be just shallow quick impressions, but often these are what count for most people.

Everyone is pre-occupied with China, and China is preoccupied with everyone else.

China's accomplishments to date are nothing short of marvelous and one cannot stop wondering if this would have ever been possible without strong, centralized government decision making, certainly within such a short time span. Scaling everything to the size of the population is really awesome-in the nonvernacular meaning of the word. While maintaining a sense of proportion, such extremely rapid growth is probably comparable to the golden age of ancient Greece, so one expects a similar production of intellectual wealth to be just over the horizon. Yet, China's centralization as a requirement for economic welfare seems to be an impediment for intellectual welfare. A small number of distinguished Chinese scholars have shepherded academic research in past decades, but a much larger number of senior academics dominate all decision making. Yes in some respects, the system is similar to the old European one, which has been cracking apart and gradually abandoned in Europe. While the energy, enthusiasm and fresh thinking of young researchers as you would find it in the USA is definitely there in China, it is harder to discern. As a result, the work submitted may be often competent but not very inspiring.

The leaders in Chinese academia seem to recognize this state of affairs. There is increasingly a strong emphasis on "international metrics," like citations, impact factors, number of papers in international journals, number of international recognitions and awards, number of editorial boards, and so on. All these seem to aim at placing China in its rightful place on the international research scene, and they do. Yet, most of us in the West know that this is also a game, a system that can be "gamed." Do you really evaluate Einstein's creativity by his refrigerator patents? How many? Per year? Lucky that Albert had this nice entrepreneurial student Leó Szilárd.

Then again, new scholarly work can be built only on deep knowledge of the current state of the art, and new ideas and

intuition come usually after understanding and transcending the older ones. Chinese researchers are learning how to balance these competing needs. More freedom to younger researchers will help scholarly creativity. In a sense, design is a new field for Chinese researchers and I expect it to be a main beneficiary of increased activity by its younger research generation.

Japan has been a long-time strong player in research. It is well known that the state of its economy over the past decade or so, exacerbated by the recent disasters, has generated a subdued mood in the country. Interesting to our present discussion is the apparent disengagement of academic and industrial research that has been going on for a long time in many areas where Japan is considered an innovator. Now there seems to be a renewed awareness that universities are good at actually doing useful research rather than just filtering good students to be taught the real knowledge after they graduate and get employed. If this trend grows, I expect that very interesting work will be appearing in our journal from these collaborations, particularly in design research.

Taiwan of course is the special case of a plant that grows beautifully in the shade with quick growth spurts when it catches the sun. Taiwanese scholars, just like South Koreans, have been a mainstay of the American research enterprise for decades. Taiwan is probably too small for all their smart people. There has been tremendous progress in their academic enterprise over the past two decades or so. Design is increasingly becoming recognized in curricula through projects and competitions. Building on a long history of kinematics and mechanisms research, a broader design research community is growing with good industry ties particularly in smart devices and systems.

In future issues we will be hosting guest editorials from colleagues in these countries, who will offer their own insights on design research and on JMD's relevance to their local efforts. Much innovation, energy, and optimism is coming from Asia and we should all celebrate it and help our colleagues there to meet their aspirations. They have their own problems to solve and they will get lots more as time goes by—Asia is the key to the longterm solution of the sustainability challenge. I can easily state on behalf of all of our editorial board members that JMD aspires to serve as a positive agent in our Asian colleagues' efforts to advance design scholarship.

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