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How to Deal With Uncertainty?

We have spent more than a year in an uncertain world. Even though we are among the specialists in the management of uncertainty, everything is difficult. We had to incessantly improvise because the health situation is constantly evolving and we face a complex environment where the progress of COVID-19 leads to administrative decisions at all levels, affecting our personal lives and our professional practices and habits. Improvisation in the face of unprecedented situations is certainly natural to human beings and one of the tasks that artificial beings are not yet able to accomplish, as is creativity.

To make a decision, we can always learn from previous examples, if there exist any, even if we have only sparse examples. We can also consider the similarity of the current situation with previous cases. But what happens if we have never encountered a situation resembling the present one? Human beings improvise. What can artificial beings do? Statisticians have played their part in anticipating the progress of the pandemic, but the appearance of a new dangerous mutation of the virus in a country is for example possible, as reality has proven, but not statistically predictable.

Curiously, this thought brings us to Lotfi A. Zadeh, who was a specialist of automated systems, and promoted systems that tend to reason like humans. The possibility theory he introduced is an attempt to fill the gap when statistics and probabilities are not sufficient to solve real-world problems in an overly complex environment. The flexibility of fuzzy systems he invented is certainly an effective element for their adaptability.

Lotfi A. Zadeh was born on February 4, 1921 and the IEEE Computational Intelligence Society and the International Fuzzy Systems Association (IFSA) decided to jointly celebrate the centenary of his birth, to pay tribute to him as a creator and a visionary, as well as to recognize his human qualities. He was an active member of our societies and we invite all his friends to submit testimonials to the IEEE Collabratec conversation site and to watch the videos collected in the History Section of the IEEE CIS website.

At the time of this writing, the form of the 2021 IEEE CIS conferences is uncertain. We look forward to seeing you all in person as soon as possible. We will anyway use virtual solutions whenever this will not be possible. The IEEE CIS committees remain very active and we invite all CIS chapters to take advantage of the financial support available for quality activities. We are also eager to get in touch with all those working in industrial and governmental sectors who are interested in participating in CIS conferences and technical activities.

Before concluding, I am pleased to tell you that the IEEE CIS is still very committed to diversity, in terms of gender, level of expertise, region and areas of work. Its Administrative Committee decided to support the IEEE Women in Engineering pledge to work towards gender-diversified panels at all IEEE meetings, conferences, and events.

Let us hope for a bright future! You can always contact me at b.bouchon-meunier@ieee.org. 📞