

THE STANDARDIZATION OF ARTIFICIAL INTELLIGENCE

Welcome to the first issue of *IEEE Communications Standards Magazine* for 2019. This issue is the result of the work of many people committed to the creation and development of a magazine that focuses on standards relevant to the information and communication technology (ICT) industry.

In February of this year, I had the privilege of meeting with Dr. Alan Finkel, Chief Scientist with the Australian Government. The IEEE Standards Association (IEEE-SA) is focused on reaching out to government and industry in all of the locations around the world where its governance meetings are held. The recent IEEE-SA Board of Governors (BOG) meeting in Melbourne, Australia provided an opportunity for the standardization volunteers at the BOG to meet with Dr. Finkel to discuss standardization. While the topics discussed were wide ranging, two things stood out.

Dr. Finkel's current passion is the standardization of artificial intelligence (AI), inspired by Alan Turing's question from 1950 "Can machines think?". He noted that there are currently no standards to guide ethical AI development and deployment, or to help consumers develop trust in AI, perhaps with a "Turing test". While IEEE-SA pioneered work on standards related to ethically aligned design, this area is still in its infancy. The integration of AI enabled technologies in the daily lives of ordinary people is rapidly increasing. An appropriate standard could provide consumers with a reasonable level of comfort and assurance that AI has been developed conforming to ethical principals that protect their rights, e.g. privacy, transparency, and inclusiveness. Standards Australia has recently formed a committee to study ethical AI and how they can map into existing international work on AI at ISO and IEEE-SA.

It was Dr. Finkel's closing remark that stood out to me. He postulated a summary of AI and all the other topics we discussed, that highlighted the dilemma that we as standardization professionals face: "99 percent of people don't know how standards make modern society work." There is much to reflect on in such a state-



Glenn Parsons

ment. First is that we the standardization professionals, as well as those that understand the profession and its impact, are only 1 percent of the population. Honestly though, for me 1 percent is generous. That general population (the 99 percent) expect everything to work, often with little interest in the details. They only notice when it does not work, and then it's a manufacturer or a government that are held to task when this happens (not standards). Standards are mostly voluntary, with the ones that governments adopt become regulatory. By driving greater informed choice for consumers, there is heightened competition between developers and companies to gain market share in new areas so everything "just works". Standardization in these areas will ensure that. If there is truly 1 percent that

are aware of the impact, then I would prefer to understand this as an indication of the huge responsibility that standards professionals have "to benefit humanity" to ensure everything works.

The importance of standards to the work and careers of ICT practitioners continues to motivate the content of this magazine, which strives to provide summaries of new innovative standardization activities to spark creativity and enthusiasm. While proposals for standards feature topics are always welcome, we will focus *IEEE Communications Standards Magazine* on a recurring series of nine relevant standards topics. The technical editors for these series (<https://www.comsoc.org/comstandardsmag/series-editors>) seek out relevant articles on standardization in their areas, and several of these series will publish multiple times during the year. In this issue, two of these series are featured. You will enjoy an editorial from each team of series editors, as well as a summary of the articles in this issue. In addition, this issue features several open call articles.

BIOGRAPHY

GLENN PARSONS [SM] (glenn.parsons@ericsson.com) is an internationally known expert in mobile transport and Ethernet technology. He is a standards advisor with Ericsson Canada, where he coordinates standards strategy and policy for Ericsson, including network architecture for 5G transport. Previously, he has held positions in development, product management and standards architecture in the ICT industry. Over the past number of years, he has held several management and editor positions in various standards activities including IETF, IEEE, and ITU-T. He has been an active participant in the IEEE-SA Board of Governors, Standards Board and its Committees since 2004. He is currently involved with 5G transport standardization in MEF, IEEE and ITU-T and is chair of IEEE 802.1. Prior to being Editor-in-Chief of this magazine, he was a Technical Editor for *IEEE Communications Magazine* and co-editor of several *IEEE Communications Magazine* feature topics. He graduated in 1992 with a B.Eng. degree in electrical engineering from Memorial University of Newfoundland.

Series Topics and Editors Featured in This Issue	
Series Topic	Series Editors
Networking Standards	Patrick-Benjamin Bök Panagiotis Saltsidis
Vehicular Networking	Xiaodong Lin Anwer Al-Dulaimi

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