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Editor's Remarks

IEEE CIM Survey Results

Last October, the CIM conducted a web-based survey. An e-mail about the survey was sent to 4000 CIS members randomly selected from all IEEE member grades. There were 662 member responses to the survey. Thank you very much for your help. The survey results were great. For example, 90% of the respondents think that the overall quality of the CIM is high, and 77% of them agree with the following statement: "The articles in the publication are relevant to my work or interests". Most members read the CIM electronically. The rest read the printed version of the magazine (24%) or print out a downloaded PDF file (15%). Under the Departments section, the Publication Spotlight had the highest readership (52%) followed by the Book Review (47%), Journal Call-for-Papers (47%), and Conference Call-for-Papers (42%). I am very happy that the CIM is highly valued by the CIS members and is playing an important role as a communication channel between the society and its members through those non-technical articles. Also, the readership of the Editor's Remarks was 30%, which is slightly higher than the President's Message at 24%.

The survey also included a question about the respondent's interest in various research areas. The question was "Which of the following topical areas, if any, should be present in the magazine? Please select all that apply." For this question, a list of 16 areas were selected. I tried to include all the popular research areas related to computational intelligence. The list included robotics, natural language processing, brain machine interface, and image processing, which were supported by 40-50% of the respondents. The most popular areas in the survey were artificial intelligence (86%), machine learning (83%), deep learning (76%), big data (61%), and optimization (55%). Since computational intelligence is central to many recent advances in artificial intelligence and machine learning, I hope that the CIM will receive more submissions on these upcoming topics. The CIM is planning to publish a special issue on "Deep Reinforcement Learning and Games" soon! (submission deadline: October 1, 2018).

The feature topic of the current CIM issue is "Automated Design of Machine Learning and Search Algorithms". Fully automated algorithm design may be an ultimate goal of algorithm researchers. It would be nice if a meta-algorithm could automatically design an appropriate algorithm for each problem at hand depending on its characteristics. If we have a high-performance meta-algorithm that is applicable to various application fields, we do not have to design a different algorithm for a different problem. However, it is extremely difficult to develop such a meta-algorithm since the design of even a single high-performance algorithm to a specific problem is very difficult. The core theme in this field is hyper-heuristics. Genetic programming is also closely related. You will find the latest developments in this field from the feature articles in the current CIM issue. I hope you will enjoy all articles in this issue.

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