Letter from the Editor-in-Chief

Machine learning and artificial intelligence, fueled by big data, fast communication channels, and information openness, are shaping our future. What is the role of data management in this trend? The September issue of the Data Engineering Bulletin takes a look at the big promise and challenge of the technology, and the ongoing work of the data management community.

Christian Jensen envisions a future where massive volumes of data that capture vehicle movements become available. How will we use the data for better routing solutions that save travel costs, such as travel time? Beng Chin Ooi et al look into 5G, one of the most important enabling technologies for a future that will be defined by the internet of things, and analyzes the impact of 5G technologies on the landscape of computing, in particular, data management.

While setting our eyes on the potential benefits of data-driven technologies, we must not overlook the risks and dangers when humanity hand over decision making to AI systems. In recent years, fairness has become one of the most popular topics in machine learning. Alexandra Meliou, the associate editor of this issue, has put together an exciting collection of recent and ongoing work that focuses on the problems of fairness, diversity, and transparency in data-driven systems.

I would also like to congratulate the 2019 TCDE awards winners. The awards committee chaired by Johannes Gehrke presents the TKDE impact award, service award, and rising star award to Christian Jensen, David Lomet, and Viktor Leis, respectively. The letters from the awards winners share their personal reflection and vision based on the great work they have accomplished.

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