Letter from the Editor-in-Chief

We would like to extend a warm welcome to Professor Murat Kantarcioglu, the new chair of IEEE TCDE as of 2023. In his letter published in this issue, Kantarcioglu outlined a number of initiatives for our technical community, including data engineering for social good, better support for diversity, equity and inclusion, etc. We look forward to working with Professor Murat Kantarcioglu on these important topics.

Several previous issues of the Data Engineering Bulletin have examined the interplay and relationship between machine learning and data management systems. In this issue, we continue our inquiry.

The increasing use of personal data for training machine learning models has called for better privacy preserving machine learning strategies. We feature an opinion piece by Professor Murat Kantarcioglu, who proposes a framework that intelligently leverages existing privacy tools to combat privacy attacks.

We then dive into one specific topic: federated machine learning. At the heart of federated machine learning is the question of how data can be utilized most effectively to train models as well as how trained models can be used to represent raw data, which is key to privacy preserving. Professor Yangqiu Song, our associate editor, examined the current landscape and recent developments in this field, and compiled the issue that consists of nine papers written by leading academic and industry researchers.

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