On the Role of Synthetic Data in Biometrics

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Message from the Guest Editors

Recent cross-border regulations on security of private data (e.g., EU GDPR) have made it harder for both industry and academia to use real biometric data for the development of biometric systems. This is how synthetic data come into play. In fact, synthetic data are not linked to any natural person and are therefore not subject to regulations. Data privacy is not the only reason that using synthetic data may be beneficial. From a practical perspective, generating a large amount of random biometric samples is more cost efficient than acquiring biometric samples from people. Moreover, with synthetic samples, it is easier to control the equal distribution of attributes such as gender, race, or age in a dataset to ensure fair and unbiased application of machine learning.

We invite papers introducing recent advances in generating all kinds of synthetic biometric data. We especially welcome studies concerned with quality assessment of synthetic samples, including the privacy aspect. Last but not least, we encourage the submission of papers introducing publicly available datasets of synthetic biometric samples.

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Special Issue

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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