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Title: Synthetic data generation in robot learning

ABSTRACT

Artificial intelligence is now present not only in digital systems, but also plays a key role in controlling physical processes. However, one of the biggest challenges in robot learning is the requirement for a large number of expert demonstrations. Mastering a single manipulation task can require up to several thousand demonstrations.

This presentation provides insight into the Antal Bejczy Center for Intelligent Robotics' research into synthetic demonstration generation. It demonstrates how training data for various robotic tasks can be generated in a simulation environment and explores the methodological and practical issues that arise when applying this approach.