Top 10 AI technology trends for 2018

Learn about the artificial intelligence advances that will have the most impact

Artificial intelligence is front and center, with business and government leaders pondering the right moves. But what's happening in the lab, where discoveries by academic and corporate researchers will set AI's course for the coming year and beyond? Our own team of researchers from PwC's Artificial Intelligence Lab homed in on the leading developments both technologists and business leaders should watch closely.

Here are the top AI tech developments to know. Find out why they matter at www.pwc.com/nextintech.

Deep learning theory
The information bottleneck principle explains how a deep neural network learns.

Capsule networks
New type of deep neural network that learns with fewer errors and less data, by preserving key hierarchical relationships.

Deep reinforcement learning
This technique combines reinforcement learning with deep neural networks to learn by interacting with the environment.

Generative adversarial networks
A type of unsupervised deep learning system, implemented as two competing neural networks, enabling machine learning with less human intervention.

Lean and augmented data learning
Different techniques that enable a model to learn from less data or synthetic data.

Probabilistic programming
A high-level language that makes it easy for developers to define probability models.

Hybrid learning models
Approach that combines different types of deep neural networks with probabilistic approaches to model uncertainty.

Automated machine learning
Technique for automating the standard workflow of machine learning.

Digital twin
A virtual model used to facilitate detailed analysis and monitoring of physical or psychological systems.

Explainable artificial intelligence
Machine learning techniques that produce more explainable models while maintaining high performance.

digital.pwc.com   @PwCDigital