



Contribution ID : 4

Type : **not specified**

Breaking the Wall to Collective Learning: How AI and Networked Robotics can Kickstart Machine Evolution

Wednesday, 6 October 2021 14:00 (60)

Smart robotic systems have taken giant leaps in recent years. Important technological breakthroughs have led to the introduction of intelligent machines that meet human needs not only in factories but also in healthcare and in the service industry. Moreover, with the help of artificial intelligence, robots are now capable of learning and continuously developing new skills. Robots, connected to a remote memory that stores large volumes of trained datasets, have become more affordable and user friendly. Even more importantly, cloud-networked robots are now also able to share data, skills and knowledge with each other, creating a ripple effect or even an entire system of 'collective learning'. A specific skill learned by one individual robot will be instantly available to all other robots in the network. I will talk about my vision for a theory of collective intelligence and applying the knowledge pyramid towards my continuous efforts to strengthen the relationship between robots and humans, with the aim of bringing ever safer, more intuitive and reliable robotics into the real world.

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Session Classification : Keynotes