

Artificial Intelligence (AI): to bring sciences and arts closer

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Abstract

The continuous growing big data and computational power is driven the wide adoption of artificial intelligence (AI). Advance of artificial intelligence is transforming the world we live in, with impacts to our economies and societies. We're already seeing AI-enabled innovation help doctors reduce medical mistakes, farmers improve yields, and researchers unlock the data for science discovery. The new era of AI has just begun although it already touches on many aspects of our lives. The development of next generation AI in the next 10 years will be critical to our society with multi-faceted and long-term impacts, including economic, health, environment, legal, political and regulatory.

As we've seen over the past 20 years, digital transformations bring us many benefits; they also raise questions and concerns. Like any new wave of science and technology, alongside huge opportunities, they come with challenges and cost that need to be identified and addressed. While the original goal of AI is to benefit humanity, different implementations of the big-data driven AI, including the use of data and algorithms for machine learning, may lead to variation and complexity in outcomes, sometime even cause misleading. Creative industry has its own need of AI. What the current AI and the future AI would impact on creative industries?

In this talk, I will discuss the impacts of the transforming AI in the current creative industries and the potential impact of the future AI to human creativity, and explore the opportunity of developing responsible next generation AI that empower the creativity of human and industry. The current development of explainable AI and interactive AI will all contribute toward this goal but it will also need new framework that enable the closer cooperation between human intelligence (and creativity) and data-driven intelligence. A new AI development framework, which we call it "human-machine cooperative intelligence", will need to be built to align and evolve with the overarching goals of empowering human creativity in the new AI era. This will aid the development of sustainable AI.



Biography: Prof Peng is a Professor of Artificial Intelligence (Chair) and the Director of the Centre for Advanced Computational Science at the Manchester Metropolitan University (MMU) UK. He is coordinating the strategic programme of "The Future of AI" and developing the MMU AI Strategy (AI-2030). Prior to that, he was the Professor of Data Science and the founding director for the Centre of Research and Innovation in Data Science at the University of Sunderland UK. His research interest includes AI and Data Science and their impact to economy, society and environmental sustainability. He is the Chair for the Big Data Task Force (BDTF) of IEEE computational intelligence society (CIS). He is also a founding member of the Technical Committee on Big Data (TCBD) of IEEE Communications. He is an Associate Editor for IEEE Transaction on Big Data, IEEE Access, and an Academic Editor of PeerJ and PeerJ Computer Science.