

Digital Life in the Big Data Era

Professor Yike Guo, Department of Computing , Imperial College London

Abstract

We are now in the age of big data, the age where we crunch an incomprehensible amount of information to gain the invaluable insights about the world and our life. We have already envisaged the benefits of big data applications: tracking vital signs to foresee deadly infections, identifying individual genetic characteristics to enable personal medicine, seeing inflation in real time and monitoring social media in order to identify trends. The realization of this big data revolution relies on the develop of new technologies such as cloud computing, sensor network, NoSQL data management and large scale data analysis. On the other hand, built upon these technologies, new big data applications can bring revolutionary change to the digital life we are experiencing. In Imperial College, Our group has been working in the area of big data analysis and platforms for the past 10 years. We are now leading the EU eTRIKS (European translational informatics platform) which is the world's first open standard platform for translational medicine research where big data in healthcare and medical industry are managed to provide a new way for drug development and healthcare provision. At the meantime, our group is also leading the development of digital economy model in the UK digital city exchange project where we are realizing a platform for building big data products for new urban digital economy. The presentation will give an overview of our research and development in these areas to stimulate the discussions for building up collaboration.