DIGITAL Finance

ECTS : 0

Description du contenu de l'enseignement :

Over the last decade, the speed of technological change has accelerated. New technologies appear and disappear every few months. Exotic new technologies – decentralized finance, cryptocurrencies, blockchains, smart contracts, AI - and intermediaries – P2P platforms, retail platforms - are being introduced (and in some cases, disappearing) rapidly. In the last year, workforces all over the world have had to deal rapidly with working remotely vs. working in an office. How should we make sense of all these changes? How can we adapt to a rapidly changing world? How should we make sense of all these changes? How can we adapt to a rapidly changing world? The biggest change underlying all these technologies is how it affects our ability to coordinate. This course demonstrates how technology is changing the way we coordinate. It documents how boundaries between firms and markets are shifting, disrupting entire industries in the process. We will discuss how firms and employees need to adapt, how they can avoid being disrupted, and what new technologies and innovations are on the horizon **Session 1. Analyzing information Topic: Understanding information flows in firms and markets**? Imperfect information, asymmetric information, and behavioral biases ? Digitalization and information flows within firms and markets ? Capturing multi-dimensional preferences and data from stakeholders ? Deciding between firms and markets **Session 2- Distributed Ledgers, Blockchain, and P2P** ? What is bitcoin? ? What is a distributed ledger? When is it useful? ? When are blockchains useful? ? Mining blocks in class ? Understanding smart contracts ? The problems with poor smart contracting **Session 3- Robo-advising, AI, and Machine Learning** Session: AI and Machine Learning ? How are AI systems created? ? Do AI systems help understanding employees and customers better? ? Can deep learning help detect fraud? ? The problems of AI systems ? The dark side of technology

Compétence à acquérir :

Topics covered

· The coordination problem: firms or markets?

· The types of information problems: Imperfect information, asymmetric information, and behavioral biases

· How does digitalization solve the imperfect information problem: Examining information flows in markets and firms

· How does digitalization solve the asymmetric information problem?

· Mechanisms to induce trust through technology

· Mechanisms to bypass the need for trust: Distributed ledgers: Bitcoin, Blockchain and beyond

· How does digitalization help in dealing with behavioral biases?

· AI and machine learning

· Taking advantage of behavioral biases for manipulation

· Data privacy