DIGITAL ECONOMY, AI AND SOCIETY 37010

Prof. Petri Mäntysaari

ABOUT THE COURSE

Welcome!

Our society has been transformed by the deployment of digital technologies and might be transformed by the deployment of AI in the future. On this course, we will study our digital economy through the lens of commercial law.

We will first set the scene and study the nature of digital economy as well as some of its characteristic business models.

After that, we will focus on big and concrete topics such as: e-commerce, the regulation of big tech, the Internet of Things, robots, artificial intelligence, fintech services, blockchain and cryptoassets, and also how to defend our democracy. We will cover a lot of ground.

You can find the rough syllabus on the next page. I tend to revise this course twice a year due to the the fast development of technology, regulation and business. This year, there are more AI issues.

ROUGH SYLLABUS

Lecture 1 The nature of digital economy. 1 The big picture. 2 Information, digital information, noise, attention, search, curation. 3 Platforms, network effects. 4 Disruptive innovation. 5 Limits to growth, growth areas. 6 The impact of digital technology on productivity growth. 7 The impact of AI on productivity growth. 8 Battle for hegemony. 9 Internet governance.10 Questions. **Lecture 2 Some basic business models.** 1 The big picture. 2 Pipeline model for retailers. 3 Freemium or subscription. 4 Standard-based ecosystems. 5 Technical platforms. 6 Online platforms. 7 The firm. 8 Where are we going? Social commerce, the metaverse, commoditisation, AI, short-term profitability. 9 Principles for survival. 10 Questions. **Lecture 3 e-Commerce: Online retail sales.** 1 The big picture. 2 There is a governing law, only certain courts have international jurisdiction. 3 Geo-blocking is restricted, online sales must not be prohibited. 4 Electronic contracts are binding. 5 General contract terms must be incorporated. 6 Website for online sales: two exercises. 7 Spamming is prohibited. 8 Unfair marketing is prohibited. 9 Consumers have contractual rights. 10 Questions. **Lecture 4 e-Commerce continued: Contract rules for online sale of goods and the supply of digital content.** 1 The big picture. 2 Mandatory nature. 3 Introduction to contents. 4 Price or data? 5 Passing of risk, burden of proof. 6 Specifications. 7 Remedies. 8 Product security and product liability. 9 Terms of use, regulation of general contract terms. 10 Questions. **Lecture 5 Regulating Big Tech.** 1 The big picture. 2 Competition law. 3 Sector-specific regulation (traditional sectors). 4 Labour law. 5 Sector-specific regulation of platforms. 6 User data. 7 Data-driven advertising. 8 Content liability (intermediary liability). 9 Copyright. 10 Consumer protection, regulation of general contract terms. 11 Taxation. 12 Innovation and tech geopolitics. 13 Questions. **Lecture 6 The Internet of Things.** 1 The big picture. 2 Characteristic problem areas. 3 Cybersecurity. 4 General product safety and product liability. 5 Connectivity, broadband, the rights and duties of telecoms. 6 Privacy, processing of personal data, GDPR. 7 Access to and reuse of data, data mining. 8 Data sovereignty. 9 Some contract law issues. 10 Questions. **Lecture 7 Robots and AI: Ethics.** 1 Introduction. 2 What is a robot? What is AI? 3 AI Policy. 4 Philosophical and ethical issues. 5 International law, the UNESCO Recommendation. 6 Ethics guidelines and regulation in the EU. 7 Safety issues. 8 Readings and questions. **Lecture 8 Robots and AI: Regulation**. 1 Introduction. 2 Robots: allocation of risk, the Machinery Regulation. 3 AI: social capital, biased decisision-making, transparency. 4 AI: EU, US, China. 5 Big data, data mining, GDPR, copyright. 6 Intellectual property of robots, AI or persons. 7 Readings and questions. **Lecture 9 Fintech: services, platforms, central-bank digital currencies.** 1 Introduction. 2 Payment services. 3 Lending and funding platforms. 4 Regtech and suptech. 5 Case: Libra. 6 Central-bank digital currencies: the e-yuan and the digital euro. 7 Readings and questions. **Lecture 10 Fintech (2): distributed ledger technology, blockchain, cryptoassets, smart contracts.** 1 Introduction. 2 General remarks about cryptocurrencies and ICOs. 3 The regulation of DLT and cryptoassets. 4 Example: NFTs. 5 Smart contracts. 6 Readings and questions. **Lecture 11 Democracy, the media, and disinformation.** 1 The big picture: democracy. 2 The effect of digital media in a democracy. 3 Attacking a democracy. 4 Transparency v corruption. 5 Freedom of speech, access to information. 6 The future of serious media. 7 How to fight disinformation and conspiracy theories? 8 The Facebook scandal, political advertising and EU law. 9 Questions.

HOW DOES IT WORK?

All materials will be in Moodle.

I will upload two or three written lectures per week after the start of the course. My goal is to have roughly 11 big written lectures about the biggest things.

Due to the fast development of the area, the main text is the lectures. There is no textbook, because a textbook in this area would be outdated before it is published, unless it focuses on historical things. I'd rather understand what is happening now. The updated lectures replace the textbook.

Moreover, since this is a really complex area, it would be impossible to understand it in any meaningful way without doing some reading and studying the context. This and my intention to focus on updating the lectures during the course explain why there have been no traditional spoken lectures in the classroom. I might nevertheless add one or two traditional lectures in the classroom.

In each written lecture, you will find links to legal and other materials. You don't really need to read the linked materials unless given instructions to do so, but feel free to have a look at the ones you find interesting. Links may have a short life-span and it is to be expected that some of the do not work.

In each lecture, you will also find some simple questions. The simple questions are just a test for yourself to improve your learning. Feel free to discuss them with yourself or your fellow students.

TERM PAPER

You learn by reading the lectures, by having a look at the linked materials you find interesting, by trying to answer the simple questions on the basis of the materials, and by writing a term paper.

When all lectures are in place, you will write a term paper. I will assign the topics randomly based on a digit in your student number.

It is my intention to ensure that you will have a couple of weeks to write the term paper. Since there will be enough time and you will have a chance to write the term paper in any location, you will not need to worry about whether you will be in Vaasa, Helsinki or somewhere else.

The term paper will be the one and only method of assessment. Please write a good one.

I will tell you more about the term paper in Moodle when all lectures are in place. Remember to read the instructions carefully!