

READING MATERIALS FOR THE COURSE ON
LEGAL ASPECTS OF ARTIFICIAL INTELLIGENCE
BY PROF. DR. ARTHUR WOLFF

LEGAL ASPECTS OF ARTIFICIAL INTELLIGENCE

PART 4: TEST YOUR KNOWLEDGE – LIST OF QUESTIONS FOR THE ORAL EXAMINATION

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INTRODUCTION

There will be an oral examination online via Zoom three weeks after the end of the course on a date between 10 and 13. August. In the examination at scheduled times groups of three students will be asked questions over a period of 30 minutes. The examination will focus on the subjects of questions taken from the list of questions below.

In order to facilitate preparation for the examination the questions listed below are preceded by headings indicating to which Sections of Part 5 of the Course Reading Materials they relate.

Questions regarding the oral examination can be sent by email to arthurwolff888@yahoo.com, but preferably by WeChat@arthurwolff in the WeChat group that will be set up for the course, as the question and answer may be of interest to other students.

LIST OF QUESTIONS

SECTION 2: AI – THE TECHNICAL CONTEXT

1. What is AI?
2. Name at least 3 technologies that are covered by the term "Artificial Intelligence", choose one and discuss it.
3. What is an algorithm?
4. Give a definition of AI and explain it!
5. What is weak (narrow) AI?
6. What is strong (general) AI
7. How does AI work?
8. What are the most important technologies of AI?
9. What is Machine Learning?
10. What is Deep Learning?
11. Name 3 subcategories of AI, choose one and discuss it.
12. What is the operating principle of AI?
13. What is a robot?
14. What is the difference between a robot and AI?
15. What is robotics?
16. What is the difference between a robot and an autonomous system?
17. What is a chatbot?

SECTION 3: AI IS A MARKET REALITY – AI IS BIG BUSINESS

1. Why has AI become so successful in the last 20 years or so and not earlier?

2. List at least 3 of the most common AI applications, choose one and discuss it.
3. What is the difference between speech recognition by an AI application and the use of a microphone and a recorder to record speech?
4. What is the difference between image recognition by an AI application and the use of a camera to make a photo or video recording?

SECTION 4: THE LEGAL, POLICY AND REGULATORY CONTEXT

1. What is at the core of AI?
2. What is the difference between a computer program/software and AI?
3. What are the 3 types of data that are used as input for an AI application?
4. What is the difference between input and output data of an AI?

SECTION 5: SOME COMMON MISCONCEPTIONS AND THE LEGAL ASPECTS OF AI

1. What is the "I, Robot fallacy"?
2. What is the "agency fallacy"?
3. What is the "entity fallacy"?

SECTION 6: HOW WILL AI AFFECT THE LAW-REGULATION AND GOVERNANCE OF AND POLICY APPROACHES TO AI

1. How may AI affect the law?
2. What is the regulation of AI?
3. What is the difference between regulation of AI and policy regarding AI?
4. Why is regulation of AI necessary and important?
5. What areas/topics are particularly important for regulation of AI?
6. What is the "softlaw"-approach to regulation?
7. What is the external regulation of AI by governments?

8. Should AI be regulated? Why and how?
9. What is the risk of bias or discrimination in the use of AI? Why is it a legal risk?
10. How is it possible that AI acts with bias or in a discriminating way?

SECTION 7: EXAMPLES OF SOFT LAW RESPONSES BY ORGANISATIONS AND STATES

1. China was the first country to bring up the problem of fully autonomous weapons and to propose a global regulation. – What are autonomous weapons and why should China's proposal be followed?

SECTION 8: WHAT LESSONS CAN A COUNTRY LEARN FROM OTHER COUNTRIES IN THEIR POLICY APPROACH TO AI?

1. Why is it reasonable, if a country learns from initiatives regarding AI in other countries or by international organizations?

SECTION 9: THE EUROPEAN PROPOSAL FOR A REGULATION OF AI

1. What does it mean that the European Union has adopted a risk-based approach in its proposal for an AI regulation?

SECTION 10: AI POLICY IN CHINA

1. What is the foundation of AI policy in China? What is its goal?
2. Name 3 of the "Principles of next-generation AI governance and responsible AI" published in 2019 by the Chinese Next Generation AI Governance Expert Committee
3. What are the Beijing AI Principles?

SECTION 11: BASIC LEGAL ISSUES OF AI

1. Guidelines for the development, deployment and use of AI usually require an ethical purpose for AI. What does that mean?
2. Guidelines for the development, deployment and use of AI usually require technical robustness for AI. What does that mean?

SECTION 12: AI AND INTELLECTUAL PROPERTY

1. Why is it important to have legal protection for AI?
2. What kind of legal protection may in principle be available for AI? Choose one and discuss it.
3. What is a patent? What is required for the patentability of inventions?
4. Why may the patentability of AI be problematic?
5. Can an AI be an inventor?
6. Can a patent be obtained for an invention made by an AI?
7. Who owns on AI-generated invention?
8. What is copyright?
9. What can copyright in principle protect in an AI?
10. Can an AI be an author of a copyright work?
11. Who owns the copyright invention?
12. What are data? What are work training data in the context of AI?
13. Are data property? If not, can there be rights in relation to data?
14. Why are data important for AI?
15. What is a database?
16. Can a database enjoy copyright protection?
17. How can AI developers find data?
18. Can a database enjoy protection outside copyright law?
19. What legal risks can there be that third party rights exist in the data used to train an AI?
20. How can AI be protected as a trade secret?

21. Why should the developer of an AI try to protect the AI components as a trade secret?
22. What measures can be used to protect AI as a trade secret?
23. What is a trademark?
24. What use can be made of AI in the context of trademarks?
25. Which kind of intellectual property protection is viable for AI?
26. Which is the best way to protect AI?

SECTION 13: AI AND TRAINING DATA-QUALITY, BIAS AND DISCRIMINATION

1. How can training data be protected?
2. How is it possible that AI can display bias or discrimination when it is used?
3. How can developers of AI mitigate the risk of bias and discrimination in AI?
4. Why is privacy legislation relevant in the AI context respectively the development of AI?
5. Why is cybersecurity relevant in the context of AI?

SECTION 14: LEGAL ISSUES PERTAINING TO THE PROCUREMENT OF AI

1. Why would a company consider intellectual property ownership and training data when deciding whether to develop an AI in-house or to buy/license an AI application?
2. Why does the in-house development of AI usually not make sense for a company?
3. What kind of provisions should a contract for the development of an AI include?
4. What key issues are there in an AI license contract?

5. What does "AI as a Service" (AlaaS) mean? Why has it become so popular?
6. Why are data-related legal issues at the centre of AI and AI-related contracts?
7. Name at least 2 data-related legal issues in the context of AI, choose one and discuss it.
8. What does the "risk of machine bias" mean?

SECTION 16: CONTRACTUAL RELATIONSHIPS – CAN AI CONCLUDE CONTRACTS?

1. Can an AI system conclude a contract?

SECTION 17: RESPONSIBLE DEPLOYMENT OF AI IN BUSINESS

1. Why is the responsible deployment of AI in business important?

SECTION 18: THE TRANSFORMATIVE-POTENTIAL OF AI

1. What are indicators of the transformative-potential of AI?

SECTION 19: DEPLOYMENT RISKS

1. What risks does the deployment and use of AI present from the liability perspective? List at least 3, choose one and discuss it.
2. How can the risks referred to in the previous question be managed or mitigated?

SECTION 20: CIVIL LIABILITY FOR AI

1. Which liability frameworks are relevant in the context of AI?
2. What is tort liability? How can it be relevant in the AI context?
3. What is product liability? How can it be relevant in the AI context?
4. What is strict liability? How can it be relevant in the AI context?
5. What is a "robo-advisor"? Which liability issues can its use raise?

6. Which future liability frameworks for AI are contemplated for introduction?
7. Should people be fully responsible for their intelligent agents?
8. Should an AI system be permitted to own property?

SECTION 21: CRIMINAL LIABILITY

1. Why might it be possible that (in the future) criminal liability may be faced by developers or manufacturers of AI systems that cause serious bodily injury or death of people?

SECTION 22: THE USE OF AI IN THE CRIMINAL JUSTICE SYSTEM

1. How can AI be used in the criminal justice system?

SECTION 23: AI, EMPLOYMENT AND TAXES

1. Which effect can AI have on employment? How does this effect, negatively affect a state's tax revenue?

SECTION 24: AI, COMPANIES AND COMPANY LAW

1. Can an AI system be appointed as a company director/board member?
2. Can a company director delegate duties to an AI?

SECTION 26: THE USE OF AI IN THE LEGAL PROFESSION

1. What is "legal technology" ("Legal Tech")?
2. How respectively for what can AI be used in the practice of law, e which AI applications exist for the legal profession? List at least 3, choose one and discuss it.
3. How can AI be used in dispute resolution?

SECTION 27: THE USE OF AI IN INTERNATIONAL ARBITRATION

1. How can AI be used in the preparation of an arbitration?
2. How could AI be used by arbitrators instead of a tribunal secretary?
3. How could AI be used by arbitrators drafting an award?

4. What would be the advantages of having an AI as arbitrator instead of a human arbitrator?