

AI Rulemakers: Shaping the Future of Artificial Intelligence

UGRA_015828

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| Departments | Dept. of Operations, Innovation & Data Sciences |
| Teaching Languages | English |
| ECTS | 3 |
| Teacher responsible | Prat Pubill Queralt - queralt.prat@esade.edu |

Course Goals

Understanding key characteristics of Artificial Intelligence for organizing.
Improve the capacities to govern with Artificial Intelligence.
Understand epistemological foundations to ensure innovation in AI governance.
Being able to understand difficulties and opportunities and strategize to overcome cultural obstacles to build AI governance.

Previous knowledge

Interest about Artificial Intelligence

Prerequisites

Interest about Artificial Intelligence

Teaching methodology

Please note that the assessment for the intensive edition, available only to programs with access to this option, is structured as follows:
15%: In-class participation
85%: Final individual project

Description

Course contribution to program

AI governance has emerged as an essential component, critical for fostering a prosperous society and facilitating successful innovation in the field of artificial intelligence. It is imperative that individuals equip themselves with knowledge about this rapidly evolving general-purpose technology, as it continues to transform various aspects of our lives and society. Understanding how AI is employed to enhance or potentially undermine our quality of life, as well as the capacity to envision and construct prosperous futures, plays a pivotal role in ensuring the triumph of democratic societies, thereby benefiting all forms of life on our planet.

Short description

In June 2021, Amol Joshi and his colleagues at West Virginia University (Joshi et al., 2021) made significant strides in the field of AI by training a model capable of repairing blurred or distorted fingerprints extracted from crime scenes. This breakthrough technology holds great promise for forensic investigations, offering the potential to enhance the accuracy and reliability of fingerprint analysis. However, despite the apparent advantages of this AI system, the acceptance of AI-altered evidence remains a subject of debate within the courts and legal systems of Western countries. One primary concern stems from the current black-box nature of neural networks, making it challenging to understand and provide an auditable trail of the AI's decision-making process. Consequently, the admissibility of evidence manipulated by AI is still a contentious issue, requiring careful consideration and

clear guidelines for its use in legal proceedings.

In October 2021, Russia introduced an innovative application of AI that disregarded some of these concerns. They implemented the "Face pay" method across 241 metro stations in Moscow, allowing metro users to conveniently make payments using their biometric face information, even while wearing standard face masks. This move exemplifies the accelerated pace of technological advancements and the competitive pressures driving innovation, sometimes overriding certain human rights concerns.

Looking ahead, it is evident that the myriad benefits bestowed upon organizations and governments by AI, coupled with the pressure to remain competitive and foster continued innovation, will profoundly influence their decision-making processes. **As AI continues to permeate various sectors, governments and organizations alike will increasingly incorporate AI into their everyday operations.** However, it is imperative that careful consideration is given to the ethical and legal implications, ensuring transparency, accountability, and the protection of fundamental human rights in this transformative era.

In the face of the ongoing AI revolution, it has become imperative for governments and organizations to develop AI systems that promote innovation, protect life forms, humans, and the environment, all while being adaptable and flexible in governing their use. The speed and magnitude of these changes pose unprecedented challenges, requiring continuous reevaluation of governance systems. **Never before human societies have had the pressure to continuously rethink their governance systems.**

Currently, governments and institutions lack the readiness to effectively respond to the rapid pace of change and exert positive influence over the future. They struggle to establish solid frameworks that facilitate governance in innovation-driven societies. The transformations brought about by AI hold immense potential for both beneficial and detrimental outcomes. **The actions or inactions of governments and institutions will significantly shape societal prosperity like never before.**

To successfully incorporate AI into governance, it is crucial to redesign existing frameworks and structures. The goal should be to not only regulate AI but also foster its positive contributions. This requires creating flexible governance models capable of continuously adapting and generating new approaches. However, obstacles such as organizational, bureaucratic, and political rigidities make this task extremely challenging.

Therefore, it is essential to develop **valuable collective projects and initiatives that can overcome these barriers.** By addressing these challenges head-on, we can pave the way for effective governance of AI, harness its potential for good, and ensure that it aligns with the overall well-being of societies. This requires a proactive approach to redesigning governance, enabling flexibility, and nurturing innovation.

The emergence of this new form of governance necessitates a deep integration of a diversity of disciplines and AI to shape a better future. It demands a commitment to continuous learning, profound thinking, and leveraging the advantages of AI. Given the complexity of governance challenges, it is essential to engage a diverse range of stakeholders, including organizations, collectives, and citizens. Their participation in multi-stakeholder AI governance models ensures high-quality responses and inclusive decision-making.

The increasing penetration of artificial intelligence in society calls for governments and institutions to adapt their workforce and operational structures. They must provide clear guidance and frameworks for effective AI governance systems. In this context, the ability to design, create, and communicate valuable collective projects that incorporate AI governance becomes paramount.

As we navigate the ever-changing landscape of cyber-physical spaces shaped by AI, it is crucial to design, develop, and test multi-stakeholder AI governance models. These models should address the

complexities and dynamics of these evolving spaces where AI plays a significant role. By doing so, we can ensure responsible and effective governance of AI, enabling the realization of its potential while safeguarding the interests and well-being of individuals and society as a whole. **Thus, the ability to design, create and communicate valuable high quality collective projects with AI governance will be paramount.**

Bibliography

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Content

| # | Topic |
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| 1 | Summary of Course Content: This course offers an in-depth exploration of Artificial Intelligence (AI) and its influence on society and governance. The program is divided into three modules, each addressing different facets of AI from a non-technical perspective. These modules cover the conceptual foundations of AI, its societal implications, and governance approaches. |
| 2 | Module 1: Artificial Intelligence in Society This module lays the groundwork for understanding AI, beginning with its definition, current state, and future potential. It explores the nature of AI, from basic concepts to more complex technologies, and highlights the implications and challenges AI poses to society. Participants will gain an understanding of how AI works, its applications across different sectors, and the basic principles that underpin AI technologies. We will also work on the challenges AI presents, including ethical considerations, bias, privacy concerns, and the potential for automation to disrupt labor markets. This module aims to foster a critical understanding of AI's role in shaping contemporary life, addressing both its promises and the risks involved. |
| 3 | Module 2: Case Studies The second module examines AI's global impact through comparative case studies, highlighting how different countries approach AI development, adoption, and regulation. Each session will explore the specific AI strategies, policies, and cultural factors influencing AI governance in the selected regions, providing a nuanced understanding of AI's role in diverse geopolitical contexts. |
| 4 | Module 3: Governance for, of, and by AI The third module shifts focus to the frameworks and strategies for governing AI, emphasizing the development of collective values and norms around AI technology. It looks at governance not only as a tool for regulating AI but also as an approach to leveraging AI in governance processes. How can societies collaboratively design AI systems that align with shared ethical values and public interests?. It explores methodologies for establishing collective priorities in AI development and regulation, addressing challenges in consensus-building and stakeholder engagement. |

| # | Topic |
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| 5 | Conclusion: Throughout the course, participants will engage in interactive discussions, case analyses, and project-based learning to understand the complexities of AI in society and the principles guiding its governance. The goal is to equip learners with the knowledge and skills to critically analyze AI's impact and to contribute meaningfully to shaping responsible AI policies and practices. |

Assessment

| Tool | Assessment tool | Category | Weight % |
|--------------------------|--------------------------------|----------------|----------|
| Group project | | Ordinary round | 20.00% |
| Other | Multiple Choice Questions Exam | Ordinary round | 40.00% |
| Final individual project | | Ordinary round | 40.00% |
| Other | Multiple Choice Questions Exam | Retake | 100.00% |

PROGRAMS

G114-Global Governance Exchange Program (Undergraduates: Law)
G114 Year 1 (Optative)

G114S-Global Governance Exchange Program (Undergraduates: Law)
G114S Year 1 (Optative)

GBD20-Double Degree in Business Administration and Law (Undergraduates: Law)
GBD20 Year 1 (Optative)
GBD20 Year 2 (Optative)
GBD20 Year 3 (Optative)

GBD23-Double Degree in Business Administration and Law (Undergraduates: Law)
GBD23 Year 1 (Optative)
GBD23 Year 2 (Optative)
GBD23 Year 3 (Optative)

GDL20-Double Degree in Law and Global Governance, Economics and Legal Order (Undergraduates: Law)
GDL20 Year 1 (Optative)
GDL20 Year 2 (Optative)
GDL20 Year 3 (Optative)

GDL23-Double Degree in Law and Global Governance, Economics and Legal Order (Undergraduates: Law)
GDL23 Year 3 (Optative)
GDL23 Year 1 (Optative)
GDL23 Year 2 (Optative)

GED20-Bachelor in Law (Undergraduates: Law)
GED20 Year 3 (Optative)
GED20 Year 1 (Optative)
GED20 Year 2 (Optative)

GEL19-Bachelor of Global Governance, Economics and Legal Order (Undergraduates: Law)
GEL19 Year 2 (Optative)
GEL19 Year 3 (Optative)

GEL23-Bachelor of Global Governance, Economics and Legal Order (Undergraduates: Law)
GEL23 Year 3 (Optative)
GEL23 Year 2 (Optative)