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| Course title | <i>Law and Regulation of Artificial Intelligence: Conceptual Frameworks and Practical Applications</i> |
| Duration | 4 hours |
| Dates& Time | Friday, 28 th July 2017, 9:00 – 13:10 |
| Instructors | Nicolas Petit, University of Liège |
| Course Description | |
| <p>Discussions over the regulation of machine intelligence (“MI”) are all the rage as artificial intelligence (“AI”) and robotic technologies are introduced in society. Computer engineers’ fears that overly rigid regulations might stifle innovation have fueled proposals to create regimes of selective immunity for research on certain types of robotic applications. At the same time, ethical concerns have prompted calls for an all-out ban on research in relation to automated weapons. Some scholars even claim that robots will become so important to mankind that “<i>a new branch of the law</i>” is needed, “<i>to grant their race and its individual members the benefits of legal protection</i>”, much like society did with the environment.¹</p> <p>In the legal scholarship, several approaches are emerging. <i>First</i>, in virtually each and every specialist field of the law, experts in the trenches ponder how the rise of MI necessitates upgrades, revisions or adjustments to their legal discipline. <i>Second</i>, an alternative approach uses a functional methodology which identifies outstanding legal issues by class of technological applications (for instance, driverless vehicles, robotic prostheses (and exoskeletons), surgical robots, and robot companions). <i>Third</i>, an often used dichotomy is that between roboethics and robot law, which distinguishes between the instruments of regulation, <i>ie</i> the <i>ex ante</i> incorporation of norms in intelligent machines (for instance, the three Asimov laws) versus the <i>ex post</i> setting of rules to regulate the execution of robotic technology in society.</p> <p>With this background, the overall ambition of this course is to map the potential regulatory needs created by MIs. More specifically, the goals of the course are to: (i) provide an overview of the state of play in relation to the introduction of MI in society; (ii) set out the main regulatory options discussed in the scholarship in relation to MI (disciplinary, functional and instrumental); (iii) envision the issue in terms of the consequences of the introduction of MI technology in society, and proceed on this basis to explore alternative consequentialist regulatory responses; (iv) understand the implications of those distinct regulatory approaches in dedicated fields of the law, <i>ie</i> liability law and the law of warfare.</p> <p>Students who follow this course will gain a good understanding of the prospective regulatory issues related to MI as well as of the theories of regulation.</p> | |
| Course Outline | |
| <p>First, the course reviews the main regulatory approaches proposed in the existing AI and robotic literature, and stresses their advantages and disadvantages. Second, it discusses identifiable regulatory trade-offs, that is the threats and opportunities created by the introduction of regulation in relation to AIs and robotic applications. Third, the course focuses on specific areas like liability, market</p> | |

¹D. Levy, *Robots Unlimited, Life in a Virtual Age*, 2006, A K Peters, Ltd., p.397.

manipulation and taxation as case-studies. Finally, the course proposes a possible methodology for the law and regulation of AIs and robots. In conclusion, the paper proposes to index the regulatory response upon the nature of the externality – positive or negative – created by an AI application, and to distinguish between discrete, systemic and existential externalities.

Educational Outcomes

Gain a first understanding of the:

AI and robotic technologies

How to address calls for changes in legislation due to the introduction of AI in society

Cost and benefits of regulating AI

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| Basic Bibliography | <ul style="list-style-type: none"> • R. Calo, “Robotics and the Lessons of CyberLaw”, California Law Review, 2015, Vol. 103:513 • J. Balkin, “The Path of Robotics Law”, The Circuit, 2015, Paper 72. http://scholarship.law.berkeley.edu/clrcircuit/72 • R. Calo, Open Robotics, Maryland Law Review, Vol. 70, No. 3, 2011 • Thomas A. Smith, Robot Slaves, Robot Masters, and the Agency Costs of Artificial Government, 1 Criterion J. on Innovation 1 (2016) • Thomas A. Smith, From Law to Automation, 1 Criterion J. on Innovation 535 (2016) • Linzer, Peter. "From the Gutenberg Bible to Net Neutrality-How Technology Makes Law and Why English Majors Need to Understand It." McGeorge L. Rev. 39 (2008): 1. | | | | |
| Teaching methodology | <table border="0"> <tr> <td>Frontal lecture</td> <td>2 hours</td> </tr> <tr> <td>Active participation</td> <td>2 hours</td> </tr> </table> | Frontal lecture | 2 hours | Active participation | 2 hours |
| Frontal lecture | 2 hours | | | | |
| Active participation | 2 hours | | | | |
| Language | English | | | | |
| Location | EPLO Headquarters, Sounion | | | | |
| General note | N/A | | | | |