

DISCIPLINA: LEGAL FOUNDATIONS OF NEW TECHNOLOGIES	CÓDIGO:
PROFESSOR: HELEN EENMAA-DIMITRIEVA	CARGA HORÁRIA: 10h
EMENTA <ul style="list-style-type: none"> • Distributed ledger technology - including blockchain. • E-governance technologies - including ID-cards, e-voting, e-residency, data embassies and machine-readable law. • Legal technologies - including the use of artificial intelligence. 	
OBJETIVOS GERAIS The purpose of the course is to provide a systematic and comprehensive analysis of a number of new technologies in governance and finance around the world, discussing their fundamental technical features as well as the main constitutional dilemmas that we face in using these technologies.	
OBJETIVOS ESPECÍFICOS Students are expected to develop the ability to understand the main elements and legal concepts of information technology, the technical and legal preconditions of a variety of new technologies in governance and finance, as well as the main constitutional dilemmas in the field of information technology law.	
METODOLOGIA The course will be delivered in the course of 10 hours of lectures and seminars, supplemented by one short and one long writing assignment outside the classroom. The pre-class and in-class activities include individual writing assignments, group discussions, as well as critical analysis of journal articles and other texts. There may be a short individual assignment in the beginning of the course in the form of a multiple choice questionnaire - 10 questions with the choice of answers - in order to better understand the level of knowledge among the students and to deliver the course according to the students' level. <i>**Reading material will be made available in advance.</i>	
PROGRAMA TBD.	
CRITÉRIOS DE AVALIAÇÃO The final grade is composed of three parts that make up the following proportion of the final grade: <ul style="list-style-type: none"> • Participation in classroom discussion (25%). • Writing assignment (25%). • Exam (50%). For a positive final grade, none of the assessment criteria can be 0 and the maximum number of seminars one is allowed to miss is 2. Additionally, Students will receive constructive feedback of their performance from the lecturer and their peers.	
BIBLIOGRAFIA OBRIGATÓRIA Mandatory reading will be determined before each class.	
BIBLIOGRAFIA COMPLEMENTAR Distributed ledger technology, including blockchain: <ul style="list-style-type: none"> • <i>Distributed Ledger Technology: beyond block chain.</i> A report by the UK Government Chief Scientific Adviser. Crown Copyright 2016, Available at: 	

<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/g-s-16-1-distributed-ledger-technology.pdf>

- Wright, A., De Filippi, P. *Decentralized Blockchain Technology and the Rise of Lex Cryptographia* (March 10, 2015). Abstract. Available at <<http://ssrn.com/abstract=2580664>>
- Reyes, Carla L., *Moving Beyond Bitcoin to an Endogenous Theory of Decentralized Ledger Technology Regulation: An Initial Proposal (April 18, 2016)*. Villanova Law Review, Vol. 61, No. 1, 2016; Stetson University College of Law Research Paper no. 2016-8. Available at <<http://ssrn.com/abstract=2766705>>
- Nakamoto, S. (2008) '*Bitcoin: A peer-to-peer electronic cash system*', Consulted, 1(2012): 1– 28. Available at <https://bitcoin.org/bitcoin.pdf> (original document describing Bitcoin)
- Buterin, V. DAOs, DACs, DAs and More. *An Incomplete Terminology Guide*. 6th March 2014. Available at: <<https://blog.ethereum.org/2014/05/06/daos-dacs-das-and-more-anincomplete-terminology-guide/>>

E-governance technologies, including ID-cards, e-voting, e-residency, data embassies, machinereadable law:

- *World Development Report 2016: Digital Dividends*. Available at: <<http://www.worldbank.org/en/publication/wdr2016>>
- Kotka, T. and Liiv, I. *Concept of Estonian Government Cloud and Data Embassies. Electronic Government and the Information Systems Perspective*. Volume 9265 of the series Lecture Notes in Computer Science, pp 149-162. Available at <http://link.springer.com/chapter/10.1007/978-3-319-22389-6_11 (If access is limited, please request a pdf version from the lecturer.)>
- Implementation of the Virtual Data Embassy Solution. Summary Report of the Research Project on Public Cloud Usage for Government, Conducted by Estonian Ministry of Economic Affairs and Communications and Microsoft Corporation. Available at <https://www.mkm.ee/sites/default/files/implementation_of_the_virtual_data_embassy_solution_summary_report.pdf>

Legal technologies, including the use of artificial intelligence:

- Lewis-Kraus, G. *The Great A.I. Awakening*, *New York Times Magazine*. Available at <<http://nyti.ms/2hE6XZ5>>
- Ambrogi, R. *The 10 Most Important Legal Technology Developments of 2016*. Available at <<http://www.lawsitesblog.com/2016/12/10-important-legal-technology-developments2016.html>> (please also see the materials under the links in the article)

More:

- Various articles at <<https://cyber.harvard.edu/>>

Various articles at <<http://cyberlaw.stanford.edu/publications/academic>>