



## DIGITAL CITIZENSHIP

**Professor Liav Orgad**

Summer 2019

Class C.109

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### Overview

Emerging technologies, characterized the “Fourth Industrial Revolution,” will alter the institution of citizenship and reconceptualize membership and belonging. While the scale of this transformation is unknown, new technologies are already blurring the lines between physical and digital, local and global. Law enforcement agencies employ Artificial Intelligence (AI), data mining, and machine learning to create an algorithmic identity that uses online activity to predict “digital citizenship”; genetic advances expand the understanding of ancestry and migration history—which has been labelled “genetic citizenship”; China and Western states use AI and big data technologies for “citizenship gamification”; blockchain technologies undermine the concept of the state and enable the creation of a decentralized “cloud citizenship”; and although the granting of citizenship by Saudi Arabia to a female Robot named Sophia was a marketing ploy to lure investors, there is a growing body of literature on “robot rights.” Technological advances will change the way people perceive communities and identities, membership and belonging.

The course shows that digital citizenship is increasingly gamified, mainly in the context of *rights/duties*; becoming algorithmic, mostly regarding the *identity* attached to it; crowded-out and liquidized, primarily in the area of political *participation*; and virtualized, especially concerning the *status* of citizenship. It highlights the potential of new technologies to develop a new concept, “global e-citizenship,” and discusses its justifications and limits. Is there a reason to celebrate the changes brought by technology, or are they likely to do more harm than good?



## Reading Assignments

The course will draw upon legislative materials, policy analysis, case law, and literature.

In advance of each class, please read the materials prescribed in the syllabus. Students should come to class prepared, having completed the readings and considered the guiding questions for each of the classes. The reading materials are available on the course webpage. It is an obligation of the students to regularly check the ongoing updates and assignments on the course website.

## Grade

**Final Paper:** The assignment will be done in pairs (10 pages, not including cover page and bibliography) and should focus on one of the course subject matters. It should include a research question, literature review, and a thesis. Students should send to the TA the chosen topic (according to the instructions to be published) and an abstract no later than August 21, 2019. Students cannot write on a topic that has been already chosen; the selection will be on the basis of first come, first served. Students should submit a final paper no later than September 18, 2019.

**Grade:** Final paper: 100%.

A bonus (up to 3%) may be granted for constructive contribution in class.

### **Class 1: Cyber Citizenship and Netizens**

1. Christian Joppke, *Citizenship and Immigration*, Cambridge: Polity Press, 2010, 1-33.
2. Costica Dumbrava, “Citizenship and Technology”, in *Oxford Handbook of Citizenship*, Ayelet Shachar, Rainer Bauböck, Irene Bloemraad, and Maarten Vink (eds.), Oxford: Oxford University Press, 2017, 767-783.
3. Lex Gill, Dennis Redeker, and Urs Gasser, “Towards Digital Constitutionalism? Mapping Attempts to Craft an Internet Bill of Rights”, *International Communication Gazette* 80(4) (2018): 302-319.

### **Class 2: Jus Algorithmi**

1. John Cheney-Lippold, “Jus Algorithmi: How the National Security Agency Remade Citizenship”, *International Journal of Communication* 10 (2016): 1721-1742.
2. James Bridle, “Algorithmic Citizenship, Digital Statelessness”, *GeoHumanities* 2(2) (2016): 377-381.
3. Nathan Heller, “Estonia, the Digital Republic”, *New Yorker*, December 2017.

### **Class 3: Social Credit Systems—China and the West**

1. Daithi Mac Sithigh and Mathias Siems, “The Chinese Social Credit System: A Model for Other Countries?” *Modern Law Review* (forthcoming).
2. Yu-Jie Chen, Ching-Fu Lin, and Han-Wei Liu, “Rule of Trust: The Power and Perils of China's Social Credit Megaproject”, *Columbia Journal of Asian Law* 32(1) (2018): 1-36.
3. Beth Simone Noveck, “More Than A Coin: The Rise of Civic Cryptocurrency”, *Forbes*, March 27, 2018.

### **Class 4: Cloud Communities & Virtual Nations**

1. Liav Orgad and Rainer Bauböck (eds.), *Cloud Communities: The Dawn of Global Citizenship?* Florence: European University Institute, 2018 (Liav Orgad, 1-6; Primavera De Filippi, 11-18; Robert Post, 23-24; Lea Ypi, 45-46; Dimitry Kochenov, 47-50).
2. Nigel Dower, “Does Global Citizenship Require Modern Technology?”, *Ideas Valores* 52 (2003): 25-42.
3. Veronika Bílková, “A State Without Territory?”, in *Netherlands Yearbook of International Law 2016: The Changing Nature of Territoriality in International Law*, Martin Kuijter, Wouter Werner (eds.), Springer: Asser Press, 2017, 19-44.

### **Class 5: Digital Demos**

1. Beth Simone Novec, *Smart Citizens, Smarter State: The Technologies of Expertise and the Future* Cambridge: Harvard University Press, 2015, 241-266.
2. Katrin Oddsdottir, "Iceland: The Birth of the World's First Crowd-Sourced Constitution", *Cambridge Journal of International and Comparative Law* 3(4) (2014): 1207-1220.
3. Tanja Aitamurto and Hélène Landemore, "Crowdsourced Deliberation: The Case of the Law on Off- Road Traffic in Finland", *Policy & Internet* 8(2) (2015): 174-196.

### **Class 6: Liquid Democracy and Blockchain Governance (Guest Lecture)**

1. Christian Blum and Christina Isabel Zuber, "Liquid Democracy: Potentials, Problems, and Perspectives", *Journal of Political Philosophy* 24(2) (2016): 162-182.
2. Wessel Reijers, Fiachra O'Brolcháin, and Paul Haynes, "Governance in Blockchain Technologies & Social Contract Theories", *Ledger* 1 (2016): 134-151.
3. Ehud Shapiro, "Democracy and E-Democracy", *Communications of the ACM* 61(8) (2018): 31-36; Ehud Shapiro, "Global Cryptodemocracy is Possible and Desirable", in *Cloud Communities*, 61-65.

### **Class 7: Matching Algorithms/Citizen Matchmakers**

1. Kirk Bansak, Jeremy Ferwerda, et al., "Improving Refugee Integration Through Data-Driven Algorithmic Assignment", *Science* 359 (2018): 325-329.
2. Will Jones and Alexander Teytelboym, "The International Refugee Match: A System that Respects Refugees' Preferences and the Priorities of States", *Refugee Survey Quarterly* 36(2) (2017): 36, 84-109.
3. Moran Sadeh, "Global Reputation for Guest Workers", *Journal of Legal Studies* 47(s1) (2018): 247-269.

### **Class 8: AI, Border Control, and Law Enforcement (Guest Lecture)**

1. Michal Kosinski and Yilun Wang "Deep Neural Networks Are More Accurate Than Humans at Detecting Sexual Orientation from Facial Images", *Journal of Personality and Social Psychology* 114(2) (2018): 246-257.
2. Kelly A. Gates, *Our Biometric Future Facial Recognition Technology and the Culture of Surveillance* New York: NYU Press, 2011 (excerpts).
3. Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* New York: Crown, 2016 (excerpts).

### **Class 9: Genetic Citizenship**

1. Pramod K. Nayar, “The Double (H)elixir of Life: Genetic Citizenship and Belonging in the 21st Century”, *Studies in Humanities and Social Sciences* 22(2) (2015): 124-134.
2. Joseph K. Pickrell and David Reich, “Toward a New History and Geography of Human Genes Informed by Ancient DNA”, *ScienceDirect* 30(9) (2014): 377-389.
3. Ian V. McGonigle and Lauren W. Herman, “Genetic Citizenship: DNA Testing and the Israeli Law of Return”, *Journal of Law and the Biosciences* 2(2) (2015): 469-478.

### **Class 10: Robot Rights? The Moral and Political Status of Machines**

1. Johannes Marx and Christine Tiefensee, “Of animals, Robots and Men”, *Historical Social Research* 40(4) (2015): 70-91.
2. Matthew Liao, “The Moral Status and Rights of Artificial Intelligence”, in Matthew Liao (ed.), *The Ethics of Artificial Intelligence* (New York: Oxford University Press, 2019).
3. Samir Chopra and Laurence F. White, *A Legal Theory for Autonomous Artificial Agents*, Michigan: University of Michigan Press, 2011, Ch. 5.

### **Class 11: Global e-Citizenship**

1. “Self-Sovereign Identity: A Position Paper” (Blockchain Bundesverband, Berlin, 2019).
2. David Miller, “The Idea of Global Citizenship,” in *Varieties of Sovereignty and Citizenship*, Sigal R. Ben-Porath & Rogers M. Smith (eds.), Pennsylvania: University of Pennsylvania Press, 2013, 227-243.
3. Liav Orgad, *The Future of Citizenship: How Technology Shapes Membership and Belonging* (Cambridge University Press, under contract, excerpts).

### **Class 12: Rethinking Membership and Belonging in the Digital Era**