

**Transformative Technologies:
Towards a Theory of the Interdependency between Technological and Legal Evolution**

Convenors: Bijan Fateh-Moghadam, Carl Jauslin, Anna Petrig

Autonomous cars, ships and weapon systems, behaviour control through algorithms (big data), smart technical body implants (cyborg-law), predictive policing, robots as judges, human enhancement and designer-babies (genome-editing) – technological innovations urge us to rethink the role of law in the digital age.

The concept of transformative technology addresses the relation between technological and legal change. Transformative technologies are not only disruptive in terms of replacing one scientific/technological paradigm by another as in the well-known concept of scientific revolutions (Th. Kuhn). They are rather capable of significantly changing societal practice. In some cases, they might affect the way of how people define their relation within and towards nature (transforming the self-perception of man). Furthermore, they might change law enforcement and war, international relations dynamics and economic power structures. They thus require reorganizing and rethinking some fundamental ethical and legal concepts.

Certainly, the idea of ethics and law being directly influenced by technology is highly contestable both from philosophical (facts versus norms) and sociological (functional differentiation) reasons. The Special Workshop aims to address these concerns while drawing on a plausible theory of transformative technologies. It deals with different areas of applications and theoretical questions in relation to transformative technologies, such as:

1. Law and Technology: How can the co-evolution of technology and law adequately be described and understood by legal theory? Moreover, which normative problems are caused by technological developments? And what repercussions has law on technological developments?
2. Human Dignity, Human Rights and the Right to Self-Determination in the Digital Age: Does technology increase personal autonomy or do Big Data and AI in autonomous machines challenge the right to self-determination? Are autonomous weapons compatible with ethical and legal concepts of human dignity and human rights? How should technology be designed in order to serve humanity and human rights?
3. Algorithms and (Democratic) Participation: To which extent can and should human control, transparency and participation be guaranteed in technological decision-making processes (algorithms)? Does the governance of algorithms impede the self-governance of the people?

Program

Friday 12 July, 14.00-18.30, 4.B47

14.00-14.30 Bijan Fateh-Moghadam: The Concept of Transformative Technologies

14.30-15.00 Christoph Winter: Exploring the Challenges of Artificial Judicial Decision-Making

15.00-15.30 Jung/Joo: Can Artificial-Intelligence Algorithms Accommodate Normative Values?: On the Use of AI Technology and the Problem of Algorithm Bias in Criminal Justice

15.30-16.00 Letizia Mingardo: Online Dispute Resolution and the Courts. The Challenge of Digital Justice as a Service

16.00-16.30 Coffe Break

16.30-17.00 Marina L. Davydova: Transformation of Legal System under the Influence of the Internet: Ways and Limits of Democratic Participation in Law Making Process

17.00-17.30 Claudia Stühler: “Euthanasia for Cyborgs” – Medical Implants and End-of-Life Decisions

17.30-18.00 Anna Petrig: Transformative Technologies and their Impact on International Law

18.00-18.30 Final Discussion