



Roma Tre

DIPARTIMENTO DI
ECONOMIA AZIENDALE

INTERNATIONAL SYMPOSIUM

The Technological Paradigm Shift in International Transnational and European Union Law



Tomás Sarmiento, 'Webs of Ascent' (2020), © Photo: Elio Ballozzi, ONNO studio

January 29th - 30th 2026

Department of Business Economics

Via Silvio D'Amico, 77 - Rome
www.internationalsymposiumr3u.com

9.00 a.m. – 9.30 a.m. – ***Welcome Speeches***

Prof. **Massimiliano Fiorucci**, Rector, Roma Tre University

Prof. **Massimiliano Celli**, Director, Department of Business Economy, Roma Tre University

9.30 a.m. - 10.00 a.m. – ***Symposium Introduction***

Prof. **Fabio Bassan** Roma Tre University

10.00 a.m. – 1.30 p.m. – **Session I** (plenary)

I - 1. Technology, Methods and Sources of International and Transnational Law

Chair: Prof. **Eyal Benvenisti** Emeritus, Cambridge University - Tel Aviv University

Prof. **Giuseppe Nesi** University of Trento - International Law Commission

Prof. **Benedict Kingsbury** New York University

I - 2. Technology and Democracy

Chair: Prof. **Giuliano Amato** President Emeritus of the Italian Constitutional Court

Prof. **Francesco Pizzetti** Emeritus, University of Turin

Prof. **Cass Sunstein** Harvard University

Light Lunch

2.30 p.m. – 7.00 p.m. – **Session II** (parallel sessions)

II - 1a. Technology and International and Transnational Legal Subjectivity

Chair: Prof. **Fausto Pocar** Emeritus, University of Milan

Prof. **Larry Catá Backer** Pennsylvania State University

Prof. **Alberto Oddenino** University of Turin

II - 1b. Technology in Courts

Chair: Prof. **Attila Tanzi** University of Bologna

Prof. **Bart Custers** Leiden University

Prof. **Francesca Ferrari** University of Insubria

II - 1c. Technology and the Family

Chair: Prof. **Maria Caterina Baruffi** University of Bergamo

Prof. **Nieve Rubaja** University of Buenos Aires

Prof. **Cristina González Beilfuss** University of Barcelona

II - 2a. Technology and Protection of the Sea

Chair: Prof. **Ida Caracciolo** Judge, Itlos

Prof. **Guillaume Le Floch** Université de Rennes

Prof. **Andrea Gattini** Padova University

II - 2b. Technology and Security

Chair: Prof. **Giampaolo Maria Ruotolo** University of Foggia

Prof. **Arianna Vendaschi** Bocconi University

Prof. **Gabriele della Morte** Catholic University, Milan

II - 2c. Technology and One Health

Chair: Prof. **Elisa Scotti** University of Macerata

Prof. **Matteo Gnes** University of Urbino Carlo Bo

Prof. **Carmen Bullon** FAO

Prof. **Francesca Coli** Scuola Superiore Sant'Anna

Prof. **Emmanuel Kasimbazi** Makerere University

Social Dinner

9.30 a.m. – 12.30 a.m. – **Session III** (parallel sessions)

III - 1a. Technology and Fundamental Rights

Chair: Prof. **Marco D'Alberti** Judge, Italian Constitutional Court

Prof. **Thérèse Murphy** Queen's University of Belfast

Prof. **Roberto Baratta** Roma Tre University

Prof. **Antonio Davola** Bari University

III - 1b. Technology and the Digital Welfare State

Chair: Prof. **Antonella Sciarrone Alibrandi** Judge, Italian Constitutional Court

Prof. **Silvia Ciucciiovino** Roma Tre University

Prof. **Anton Ming Zhi Gao** National Tsing Hua University

Prof. **Marco Cappai** Roma Tre University

III - 2a. Technology and Investment

Chair: Prof. **Giorgio Sacerdoti** Emeritus, Bocconi University

Prof. **Maria Chiara Malaguti** Catholic University, Rome

Prof. **Mira Burri** University of Lucerne

III - 2b. Technology and Currency

Chair: Prof. **Gianluigi Tosato** Emeritus, Università La Sapienza

Prof. **Ugo Malvagna** University of Trento

Prof. **Chiara Zilioli** European Central Bank

Light Lunch

1.30 p.m. – 6.00 p.m. – **Session IV** (parallel sessions)

IV - 1a. Technology, Competition and Intellectual Property

Chair: **Prof. Giovanni Pitruzzella** Judge, Italian Constitutional Court

Prof. Marco Ricolfi Turin University

Prof. Thibault Schrepel Amsterdam Law and Technology Institute

IV - 1b. Technology, Savings and Capital Markets

Chair: **Prof. Maddalena Rabitti** Roma Tre University - IVASS, BoD Member

Prof. Filippo Annunziata Bocconi University

Prof. Andrea Sacco Ginevri Roma Tre University

IV - 1c. Technology and Data Protection

Chair: **Prof. Michele Vellano** University of Turin

Prof. Cosimo Monda Maastricht University

Prof. Christopher Kuner University of Copenhagen

IV - 2a. Technology, Economic Sustainable Development and Climate Change

Chair: **Prof. Sheila Foster** Columbia University

Prof. Alexandra Harrington McGill University - University of Ottawa

Prof. Maciej Sokolowski Warsaw University

Prof. Cristiana Lauri University of Macerata

IV - 2b. Technology and Peace

Chair: **Prof. Andrea Renda** European University Institute - CEPS

Prof. Mary Ellen O'Connell University of Notre Dame

Prof. Michele Giovanardi CMI - Martti Ahtisaari Peace Foundation - University for Peace

IV - 2c. Technology and Space Law

Chair: **Prof. Elda Turco** ASI

Prof. Lorenza Mola University of Turin

Prof. Philippe Achilleas Université Paris-Saclay

6.00 p.m. – 6.30 p.m. – **Session V** (plenary)

Conclusions. The Technological Paradigm Shift.

Challenges in International, Transnational and European Union Law

Prof. Fabio Bassan Roma Tre University

Symposium Scientific Director

Fabio Bassan

Scientific Committee

Maria Caterina Baruffi, Agostina Latino, Alberto Oddenino, Elisa Scotti

Organizing Committee

Jacopo Bergodi, Federico Nespega

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The Technological Paradigm Shift in International Transnational and European Union Law

Introduction

The recent evolution of technology is changing the paradigms of life and social relations. It also produces a significant impact in legal and economic relations on European, Transnational and International levels. Malicious use of technology can be decisive for the outcome of an election, but it can also produce benefits for the protection of fundamental rights, or for the welfare state. It can decisively assist a state's war apparatus, and it can protect and preserve peace. It shifts multinational corporations into private orders, even potentially endowed with their own currency, and enables forms of protection of individuals and the community from them as well. It can result in a huge expenditure on electricity, but also in a reduction in environmental impact.

Nevertheless, the result is not neutral: oversight of the use of technology is slower than technological evolution, and it amplifies the limits of Transnational, Supranational, International law. The European (as well as, in a different form, the Chinese) approach of managing technology by placing it in a regulatory matrix consistent with its own fundamental principles and rights, contrasts with the more market-oriented approach of Anglo-Saxon countries, the United States *in primis*. The confrontation over technology thus seems to be becoming a clash between jurisdictions and not just between companies on the market. A comparative approach helps in interpreting current dynamics.

In this conference we aim to debate on the implications of the issue in its various applications, and to understand whether there is a path of cooperation that can replace all or part of the current confrontation scenario.

This approach corresponds to the *Zeitgeist*, on the level of international relations but also in the European Union, to identify shared principles which each country or area can apply in accordance with its own legal traditions.

Session I [plenary]

I - 1. Technology, Methods and Sources of International and Transnational Law

Technological advances influence the methodologies used in study and practice as to the formation, interpretation, and application of International and European Union law. Technologies have created new areas of law: cybersecurity, regulation of artificial intelligence, regulation of autonomous weapons, genetic engineering, data sovereignty, and have changed the assumptions for the interpretation and application of law in other areas (among all: space law). Digital archives and data analytics enable constant and precise monitoring of international custom, or the application of treaties (for example, satellite technology is being used to monitor environmental treaties, and blockchain can improve transparency in trade agreements). Technology has also transformed the way evidence is presented and analyzed in international courts.

This evolution requires a multidisciplinary approach, which is not neutral to the different methods applied in international law: some are more effective than others in interpreting practice.

The sources of transnational law are evolving quickly along with markets, whose development is increasingly determined by technology. Best practices in markets become benchmarks that national authorities or supranational organizations then turn into standards. Hence, it is now established that there is no opposition between soft law and hard law: they are the steps of a single ladder. In some cases, in the European Union, standards are not enough: an executive act of the Commission, or a legislative proposal, is required. In any case, standards that constrain markets arise from markets, according to the dynamics of the 'regulatory circle.'

International norms also follow new dynamics drawn by technology: treaties incorporate transnational norms, bringing them to the level of international law, which then becomes 'porous,' permeable to the evolution of Transnational law.

I - 2. Technology and Democracy

Technology provides transparency and accessibility of information never experienced. At the same time, there are an increasing number of cases in which the Courts, national and international, declare the illegitimacy of elections determined by the interventions, direct or indirect, of transnational corporations that influence the will of the voters. Again, there is an interpenetration of public and private law, subjects of international law (states) and Transnational law (corporations), on the domestic level, where reserved domain and with it, a part of sovereignty, are eroded by 'private powers'.

Session II [parallel sessions]

II - 1a. Technology and International and Transnational Legal Subjectivity

Technology is transforming some transnational digital societies into full-fledged private legal orders, with which sovereign states (as well as the European Union) must deal, in some cases by imposing behavior, in other cases by negotiating the applicable rules, and in others by using them as instruments in international relations. These private orders also often adopt receptive referrals to the norms of international law. This shift calls for reflection on the issue of international and transnational subjectivity on the level of relations between 'powers,' no longer just states.

II - 1b. Technology in Courts

While technology offers many benefits for international courts – like faster communication and access to evidence – it also requires careful legal, procedural, and security considerations to address the complex issues it raises.

Different countries have varying laws regarding digital evidence, data privacy, and cyber-crime. This can complicate jurisdiction and enforcement of rulings across borders. Establishing which legal system applies in cases involving multiple countries can be complex. Few examples of the impact of technology in Courts relate to: Evidence Collection and Authentication (digital evidence such as emails, social media posts, and electronic documents need to be properly collected, preserved, and authenticated); ensuring the integrity and chain of custody of digital evidence across jurisdictions is challenging; data privacy and confidentiality (handling sensitive data raises concerns about privacy rights and confidentiality, especially when sharing evidence internationally; Courts must balance transparency with protecting personal information); use of technology in proceedings (virtual hearings and remote testimonies have become common: ensuring fairness, security, and accessibility in virtual proceedings is essential); cybersecurity risks (Courts are vulnerable to hacking, data breaches, and cyberattacks, which can compromise case information and undermine trust in the judicial process); standardization and cooperation (lack of uniform standards for digital evidence and procedures can hinder international cooperation; International bodies are working towards harmonizing rules, but differences still exist); speed and efficiency (technology can speed up proceedings but also lead to information overload or technical delays if not managed properly); ethical and procedural challenges (ensuring that technological tools are used ethically and that procedures are transparent and fair is vital).

II - 1c. Technology and the Family

Continued advances in science and technology, coupled with the opening of national borders globally and the mass use of technological means of information and communication, have resulted in a relativization of space, which affects family law. While traditionally the focus was on the relationships between transnational family members, more recently it is filiation as it arises that comes into consideration, in close connection with new reproductive techniques through the processing of oocytes, sperm or embryos, in cases where spontaneous conception, for whatever reason, is extremely remote or impossible. These techniques differ profoundly, but both in the case of heterologous fertilization and gestation for others (GPA) pose problems of private international law and EU law, due to the use, where prohibited in the country of origin, of foreign clinics, thus giving rise to a transnational phenomenon. Reflection is therefore necessary, considering domestic and international case law on the protection of individual rights with regard to the choices made by individual jurisdictions, in the context of free movement and the Union's competencies in this area, as well as the typical institutions of private international law to protect national interests.

II - 2a. Technology and Protection of the Sea

There are numerous recent technological developments that have a significant impact on the law of the sea and which should be interpreted in light of the UNCLOS principles of sustainability and equity: for the exploration of the seas; for the extraction of raw materials; for the exploitation of renewable energy; for the protection of biodiversity; for maritime cybersecurity; for the safe navigation of ships; for port automation; for seabed operations and naval operations on the continental shelf; for unmanned and autonomous warships and military aircraft; for the delimitation of continental boundaries and platforms; for monitoring and enforcement of jurisdiction over the seas; and for the resolution of maritime boundary disputes.

II - 2b. Technology and Security

The rise of cyber threats has forced the development of international legal standards to deal with cyber-attacks, espionage and cyber warfare, with the aim (on the external level) of protecting national security in inter-state relations and (on the internal level) of public and private orders, the privacy of citizens.

II - 2c. Technology and One Health

The fundamental interrelationship between human health, animal health, and the environment has been recognized since ancient times. In contemporary relations, the principle of 'One Health' originated in 2004, and has developed across disciplines (starting with bio-medical) especially in the last decade, where it has emerged as a unifying concept that

highlights the critical role of technology, data, information, and knowledge in facilitating interdisciplinary collaboration across States. The main application domains of One Digital Health cover FAIR data integration and analysis, disease spread surveillance, antimicrobial stewardship, and environmental monitoring.

Session III (parallel sessions)

III - 1a. Technology and Fundamental Rights

The protection of fundamental rights is decisive in the current historical turn, characterized both by the technological revolution and by changing relations between ‘powers’ (States and multinational corporations, public and private orders), in which rights are among the few cardinal points that still stay, though not unchanged. Scientific and technological innovation, and digital and algorithmic technologies, raises questions in terms of rights and freedoms that are being addressed at both constitutional and supra-national, European, Transnational and International levels. The spread of digital technologies affects the protection of freedom of expression, data protection, but more generally it changes both the mobile perimeter of rights, individual and collective (from identity to self-determination), which are increasingly fragmented, and the tools by which they must be enforced, imposing an investigation of the effectiveness of protections on the concrete level of enforcement.

III - 1b. Technology and the Digital Welfare State

The digitization of welfare policies, service delivery, and labor has led to increased social control and surveillance, which is declined in very different ways in today’s prevailing and often opposing areas of influence of the European Union, the United States, and China. Inclusion and control represent two extremes of protection, individual and collective, and the evolution of public and private power over individuals. National rules, supranational rules (starting with European Union ones), and international treaties form a matrix characterized by a necessary rigidity in principles, and flexibility in the determination and application of rules.

III - 2a. Technology and Investment

The impact of digitization on international investment law is still limited but has much room for development. Governments and scholars are questioning whether and, if so, to what extent digital assets can benefit from the protections of international investment treaties; whether and how technology can make dispute resolution systems more efficient and effective; whether and to what extent national protection strategies (increasingly, according to ‘golden power’ paradigms) apply to technology (e.g., with limitations on market access, restric-

tions on data transfer, impositions of “algorithmic transparency”) and at the same time take advantage of it (e.g., through the adoption of automated decision-making processes).

III - 2b. Technology and Currency

Currency, until recently evidence of the effectiveness of state power, is now also an instrument of private power. International rules, effective in relations between States, are thus supplemented by transnational rules. On digital currency, States and transnational companies compete to achieve partly different goals. The balance of post-modern monetary law, following the Bretton Woods agreements as amended in the 1970s, has broken down. In the current phase of comprehensive rethinking of the system, the power relationship between states-powers is likely to change significantly, supplemented by the relationship with private powers.

Session IV (parallel sessions)

IV - 1a. Technology, Competition and Intellectual Property

Competition law has recently changed its reference matrix because of technology: private digital orders raise new issues that require new approaches even before new tools.

EU competition law divides further from U.S. antitrust law: ex ante regulatory obligations overlap with the, classical, ex post, applied based on quantitative tests. Technology forces reconsideration of markets on the level of even geography: principles that were firm just a few years ago become unenforceable, and new matrices and coordinates are needed. Intellectual property, copyright, patent matters, have a historical relationship with technological progress, which is one of their prerequisites, and with which they often end up being identified. However, the revolutionary nature of recent innovation now pushes these matters to the edge of the perimeter of protections: blockchain on the one hand (especially when public and thus open source) and artificial intelligence pose new challenges on unexplored terrain.

IV - 1b. Technology, Savings and Capital Markets

Savings and capital markets are one of the main brakes and limitations of globalization.

The reduction of barriers to the free movement of products has not been followed by that of finance, which of the former is the main support. The European Union is now filling the gap, to become a key player in a new ‘regionalized globalization’.

Technology is the main enabler of a single European but potentially global market.

IV - 1c. Technology and Data Protection

The protection of personal data was born and developed with technology, and it has become a pivot, but also a parameter of legitimacy both of the use of technology and of its development, as to the market and to its oversight.

This is the elective ground of the clash of States' approaches and safeguards. As such, it is an interesting laboratory of potentially broadly applicable solutions.

IV - 2a. Technology and Sustainable Economic Development and Climate Change

Technological evolution and sustainable development seem today to be opposing and irreconcilable phenomena. In truth, it is precisely technology that can become an enabling factor for sustainable development (e.g., energy transition, sustainable transport, resource management), and thus help to solve the new critical issues, on the economic, social and environmental level, that technology poses, and to reduce their risks (environmental costs, climate actions, or environmental conservation). Priority appears to be given to the issue of governance and international cooperation to achieve the goals of sustainable economic development with respect to the technological tools available.

IV - 2b. Technology and Peace

Technologies are a decisive support on the plane of conflict, including war, but at the same time they can be tools (yet inadequately investigated) for international and transnational cooperation, growth and peace.

Technologies that are functional (ontologically or in terms of use) for peace are increasingly part of an ecosystem, predominantly composed of NGOs, but their coordination on the multinational and transnational level is still lacking.

The use of technology for peace ("tech-for-good") involves legal, political, economic, and ethical issues that transcend national borders and require new models of transnational governance.

IV - 2c. Technology and Space Law

Surveillance, protection and information (to earth), and protection and exploration (to space) are revolutionized today by technology, which enables functions that were until recently unthinkable, and reduces the cost of developing and implementing projects. New solutions arise for space debris issues, ethical issues, and applicable regulations for States and for private companies; solutions that impose flexible legal systems suitable for efficiently governing the growing capabilities of space technology. Global cooperation (between States, and between States and transnational companies) on technology, law, and ethics is a prerequisite for efficient governance.

Session V (plenary)

Conclusions: The Technological Paradigm Shift.

Challenges in International, Transnational and EU Law

The final session draws conclusions about the current relationship between technology and public and private international law, transnational law, and the law of the European Union, the study of which is enriched, thanks to technology, with new tools but also new objects of analysis, in a path of hybridization between branches of law but also between law, economics, science, and ethics.

Speakers

Achilleas Philippe

Amato Giuliano

Annunziata Filippo

Backer Larry Catá

Baratta Roberto

Baruffi Maria Caterina

Bassan Fabio

Benvenisti Eyal

Bullon Carmen

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Caracciolo Ida

Celli Massimiliano

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Coli Francesca

D'Alberti Marco

Davola Antonio

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Gao Anton Ming Zhi

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González Beilfuss Cristina

Harrington Alexandra

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Kuner Christopher

Lauri Cristiana

Le Floch Guillaume

Malaguti Maria Chiara

Malvagna Ugo

Mola Lorenza

Monda Cosimo

Murphy Thérèse

Nesi Giuseppe

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O'Connell Mary Ellen

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