

Developing a Transdisciplinary Curriculum in Law: Integrating Social, Technological, and Ethical Aspects. International Law *Quo Vadis?*

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Abstract

This study is based on the stage marked by the 30th anniversary of the Charter of Transdisciplinarity in 2024, serving as a moment of reflection-tribute to the academic Basarab Nicolescu. Transdisciplinarity acts as a fundamental approach, complementing disciplinary methods by fostering new perspectives and bridges through the interaction of various disciplines. As stated in the Charter, transdisciplinarity does not seek to create a super-discipline encompassing all others, but to open disciplines to their commonalities and to what lies beyond their boundaries. The inadequacies of traditional legal norms now have a real chance of resolution through the innovative attitude of transdisciplinarity in legal education and research. An international chair of transdisciplinarity would catalyse global academic collaboration, knowledge exchange, and development. Conceptually and practically, transdisciplinary education, through its framework, would develop universal rules and norms for new technologies, climate change, economic development, and human rights. Integrating digital law into international norms and practices stimulates new debates, particularly regarding the regulation of personal data, cybersecurity, and emerging technologies such as AI and autonomous robots. The article proposes efficient and clear solutions

presented both textually and in the form of diagrams designed to reinforce the logic of their application.

Keywords: *transdisciplinarity, legal education, international law, innovation, integration, globalisation.*

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1. Introduction

This study includes an objective evaluation of the essential elements of law, particularly international law. This is a landmark moment as the Charter of Transdisciplinarity celebrates 30 years in 2024, marking a long struggle for the most appropriate form of knowledge. The role of transdisciplinarity is foundational, as the Charter states, transdisciplinarity complements the disciplinary approach; from the confrontation between disciplines emerge new results and new bridges; it offers us a new vision of Nature and Reality. Transdisciplinarity does not aim to develop a super-discipline encompassing all disciplines, but to open all disciplines to their commonalities and to what lies beyond their boundaries (Article 3)¹. The Charter was adopted with these guidelines in mind: "whereas only an intelligence that considers the global dimension of current conflicts will be able to cope with the complexity of our world and the contemporary challenge of the material and spiritual self-destruction of our species; whereas life is strongly threatened by a triumphant technoscience that adheres only to the terrifying logic of efficiency for the sake of efficiency; whereas the contemporary disconnection between the ever-increasing accumulation of knowledge and an ever-impoverished inner being leads to the emergence of a new obscurantism, with incalculable individual and social consequences; whereas the unprecedented growth of knowledge in history increases the inequality between those who possess it and those who do not, thereby generating increasing inequalities within peoples and between nations on our planet; and whereas, at the same time, all the challenges mentioned have a corresponding element of hope, and the extraordinary increase in knowledge can lead, in the long term, to a mutation comparable to the transition from hominids to the human species."²

"Proponents of legal postmodernism have highlighted the inadequacy of legal norms and law in general. Under these circumstances, where the question arises as to whether legal globalisation will be realised, there is a need to accept other forms of research, extra-state or suprastate regulation, which go beyond the classical positivist conception." Law crosses borders as an export product. For law, transdisciplinarity represents an innovative attitude in legal education and research, capable of integrating and transforming perspectives and methodologies

¹ The Charter of Transdisciplinarity, adopted at the First World Congress on Transdisciplinarity, held in Convento da Arrábida, Portugal, November 2-6, 1994, paved the way for numerous studies that have made a considerable contribution to the development of scientific research worldwide.

² Ibidem. See preamble to the Charter. See more in McGregor, Sue L. T. (2015). "Transdisciplinarity and Conceptual Change". *World Futures*, 71(3-4), pp. 213-227; McGregor, S. L. T. (2011). "Demystifying Transdisciplinary Ontology: Multiple Levels of Reality and the Hidden Third". *Integral Leadership Review* 2011. Accessible at <http://integralleadershipreview.com/1746-demystifying>, 28.04 2024; and McGregor, S. L. T. and Gabrielle Donnelly (2014). "Transleadership for Transdisciplinary Initiatives". *World Futures* 70, pp.164–185. McGregor, Sue L.T, (2015). "Transdisciplinarity Knowledge Creation", in P.T. Gibbs (ed.) *Transdisciplinary Professional Learning and Practice*, pp. 9-24, Ed. Springer New York.

from various disciplines to find the most appropriate legal solutions. To this end, an international chair of transdisciplinarity, if established, would serve as a catalyst for global collaboration, knowledge exchange, and development.

Conceptually and practically, transdisciplinarity transcends the limits of traditional disciplines, creating a common space for interaction. In the context of transdisciplinarity, the term 'integration' signifies the unification and combination of perspectives, knowledge, and experiences from various academic and non-academic fields, a process that is not limited to the collaboration between different disciplines but also includes the valorisation of local, traditional, or practical knowledge from outside the academic sphere. Integration represents a concerted effort to create a common space for interaction and dialogue, where methods and theories from various fields are continuously shaped and combined with the experiences and wisdom of local communities, contributing to a deeper understanding of the studied topics.

By 'integrating' diverse perspectives, a synergistic collaboration is promoted that not only brings together existing resources and knowledge but also creates new ways of understanding and applying them, reflecting an openness to epistemological diversity and recognising the value of each type of knowledge in constructing a complex and nuanced vision of reality. We discuss not only the collaboration between different academic fields but also the integration of non-academic perspectives, including local or traditional experiences and knowledge. Although integration has often been synonymous with transdisciplinarity due to the processes of unifying and combining knowledge and methodologies from various fields, it must be said that transdisciplinarity is characterised by transcending the limits of traditional disciplines and a strong feature of adaptability, serving to tailor research to present conditions.

1.1. The Origin and Evolution of Transdisciplinarity

The concept of transdisciplinarity was introduced in the 1970^s in response to the need to adapt to society because law has always reflected and continues to reflect the way society has evolved. Unlike multidisciplinary and interdisciplinary, transdisciplinarity does not limit itself to collaboration between disciplines but seeks to create an integrative framework with a specific purpose that transcends disciplinary boundaries³. Transdisciplinarity in law has been influenced by various academic and social movements, including ecology, feminism and civil rights movements.

³ Max-Neef, Manfred (2005). "Foundations of transdisciplinarity". *Ecological Economics*, 53(1), pp. 5-16 and, for a general view Nicolescu, Basarab (2002). "Manifesto of Transdisciplinarity". SUNY Pres.

2. The Role and Importance of an International Chair in Transdisciplinarity

Firstly, this facilitates effective cooperation between researchers and institutions from various countries, promoting the exchange of ideas and best practices and leading to the development of the much-needed innovative curriculum. Educational programmes that reflect the principles of transdisciplinarity can be practically developed. Additionally, various roles such as supporting applied research and improving public policies can be enumerated.

There are numerous examples of international chairs of transdisciplinarity that have had and continue to have a significant impact. The "Human Development and Peace Culture" UNESCO Transdisciplinary Chair promotes dialogue between science and society, addressing issues such as climate change and sustainable development. As the official description of the chair states: "The higher education, research, and international cooperation work carried out by the Chair is centered on "The Historical Challenge of Planetary Civilisation", which is the title of its new UNESCO-approved general project for the four-year period 2017-2021. The subtitle defines the field of research and the transdisciplinary character: "Towards the Earth's Humanism. In search of the 'co-science' and 'co-growth' beyond violence", which are articulated into three macro-programs: The Complex Research, The Earth Citizenship, The Care of the Common House."⁴ It should be noted that when we talk about peace and human development, we cannot fail to emphasise the importance of international human rights and the maintenance of international peace and security. It follows that the ultimate aim is in fact a set of specific international law regulations. Paolo Orefice, the president of this chair, referring to the transdisciplinary paradigm, stated that 'a transdisciplinary point of view is essential to overcome the prospective criticisms of the historical limits of human development and the culture of peace from the 1900s. The fragmented approach to reality through separate disciplines and their proponents, torn and divided in research, work, and the development policies of people and societies, leads to a "liquid modernity," as the philosopher Zygmunt Bauman asserted in his later years"⁵. Furthermore, he argued for the exceptionally negative

⁴ See UNESCO Chairs at the University of Florence, work updated on 29.04.2029, available here: <https://www.unifi.it/index.php?module=CMpro&func=viewpage&pageid=11257&newlang=eng#pace>, accessed on 30.04.2024. The Chair operates based on the Participatory Action Research on the fundamental interaction between the intangible development of the knowledge base of people, groups and cultures and the tangible development of anthropic territories. Hence the priority is given to the educational enhancement of knowledge in planetary coexistence beyond the logic of opposites that generates violence.

⁵ Paolo Orefice (2017). *The Project 2017/2021 (Synthesis). The historical challenge of the planetary civilization. Towards the Earth's Humanism, in search of the co-science and cogrowth beyond violence*. University of Florence – October 31, 2017, pp. 2-3, available here: https://www.unifi.it/upload/sub/relazioni_internazionali/unesco_chair_project_human_development.pdf, accessed on 30.04.2024.

global impact of this, "with incredible damages to the lives of countless other species, as well as to the Earth system itself," which translates for international law specialists into the existence of many unacceptable regulatory gaps given the level of evolution claimed by humanity. I refer to the non-recognition of branches of international law such as animal rights, rights of nature, rights of the soul and biocamps of life forms, rights of all life forms, and many others that have been waiting too long to be born.

Such research always has at its core the epistemology that mobilizes knowledge from the broadest spectrum of disciplinary, cultural, and humanitarian cultures, as recommended by UNESCO, aiming to create a transdisciplinary strategy of complex science in its clarity and feasibility. This is the challenge of human knowledge unity over the complex problems, reality, and experimentation of open and transferable models of multidimensional development of individuals and societies, where their tangible and intangible variables are restored in the unity of diversity cited by Morin.

It is the most grounded hope of research, including legal research through which finally the separation between the science of nature, man, and technology, between science and ethics, between science and democracy, between reason and sentiment, could be dissolved, as beautifully described in ink words by Paolo Orefice. We are not far from this aspiration, and human rights represent the best material for applying transdisciplinarity, as I have developed in one of my recent monographs. It is a new type of international legal sociability that almost overturns the ways of producing and reproducing law on subjects as sensitive and diverse as these⁶. I have termed this development "transdynamics" of international law.

From the unity of reality unfolding in different dimensions and complexity, we reach the logic of inclusive thirdness, which, according to the Charter of Transdisciplinarity celebrating its 30th anniversary this year, operates at a more advanced level of reasoning than "the logic of contraries"; it does not exclude it but rather brings it to an intermediate level of analysis. Affirming the logic of inclusive thirdness can demonstrate the conquest of the next stage of human rights democracy among the earthly civilization.

Regarding transdisciplinary education, the Charter is very clear and encapsulates its essence in Article 11: "Authentic education cannot favor abstraction at the expense of other forms of knowledge. Education must emphasize contextualization, concretization, and globalization. Transdisciplinary education is based on reassessing the role of intuition, imagination, sensitivity, and the body in the transmission of knowledge." In short, it addresses the diversity of humanity and the adaptation of educational systems to each individual.

Examples of applicability can be found in all branches of law, but I will

⁶ J. Allard, A. Garapon (2005). *Les Juges dans la mondialisation: La nouvelle révolution du droit*. Editions du Seuil, La République des idées, pp. 1-19.

follow by exemplifying the extensive content of international law, which has a mission to fulfill when discussing transdisciplinarity. The Charter of Transdisciplinarity itself provides a guideline for this in Article 8: "The recognition by international law of this dual belonging - to a nation and to the Earth - is one of the purposes of transdisciplinary research."⁷ Therefore, international law must achieve that level of recognition of belonging both to a nation and to the Earth simultaneously, as any separation would alter this purpose.

Without delving into philosophical or historical details and remaining focused on the basic idea of transdynamics, it is worth noting that legal theory has been and continues to be used in international legal disputes as a basis for interpreting and applying norms. For example, in international litigation, parties and the arbitral tribunal or international court rely on legal theory to interpret and apply provisions of treaties and laws relevant to the case. Indeed, legal theory can be used to argue whether a particular law or treaty should be interpreted in a certain way or whether a particular solution should be adopted to resolve a dispute based on relevant legal principles and values.

Going further into illustration, a state may invoke the principle of its territorial sovereignty in a dispute with another state claiming that its territorial integrity has been violated. Also in practice, legal theory is used to defend the legal position of a party in international litigation and to provide a solid basis for the final decision of the arbitral tribunal or international court. Although final decisions are often influenced by political factors and other considerations, legal theory remains an important part of the decision-making process in international legal disputes.

In the case of *Lotus (France v. Turkey, 1927)*⁸, therefore, international law must achieve that level of recognition of belonging both to a nation and to the Earth simultaneously, as any separation would alter this purpose.

Without delving into philosophical or historical details and staying focused on the core idea of transdynamics, it is worth highlighting that legal theory has been and continues to be used in international legal disputes as a foundation for interpreting and applying norms. For instance, in international litigation, parties and the arbitral tribunal or international court rely on legal theory to interpret and apply provisions of treaties and relevant laws. Indeed, legal theory can be

⁷ Article 8: "The dignity of the human being is both planetary and cosmic. The appearance of the human being on earth is one of the stages in the history of the universe. The recognition of the Earth as the homeland of all human beings is one of the imperatives of transdisciplinarity. Every human being has the right to a nationality, but living on Earth is also a transnational being. The recognition by international law of this dual belonging - to a nation and to the Earth - is one of the aims of transdisciplinary research."

⁸ The well-known *Lotus* case was heard by the Permanent Court of International Justice and concerned the collision on August 2, 1926, between the S.S. *Lotus*, a French ship, and the S.S. *Boz-court*, a Turkish ship, in a region north of Mytilene (Greece). The Permanent Court of International Justice, often called the World Court, existed between 1922 and 1946. It was an international court attached to the League of Nations.

utilized to argue whether a specific law or treaty should be interpreted in a particular manner or whether a specific solution should be adopted to resolve a dispute based on pertinent legal principles and values.

Furthering this illustration, a state may invoke the principle of its territorial sovereignty in a dispute with another state claiming that its territorial integrity has been violated. Similarly, in practice, legal theory is employed to defend the legal position of a party in international litigation and provide a robust foundation for the final decision of the arbitral tribunal or international court. While final decisions are often influenced by political factors and other considerations, legal theory remains a crucial aspect of decision-making in international legal disputes.

In the case of the *Lotus (France v. Turkey, 1927)*, concerning a collision between a French warship and a Turkish commercial vessel, France argued it had the right to bring the case before its national courts, while Turkey contended it should be adjudicated by an international arbitral tribunal. Ultimately, the Permanent Court of International Justice ruled that France had jurisdiction over the dispute based on the principle of sovereignty, which states that countries are not obligated to submit to an international tribunal unless they have previously agreed to do so. This list could also include the dispute between Iceland and the United Kingdom regarding banking governance. Iceland invoked its sovereignty over its banking system against the United Kingdom, which used financial instruments to prevent the collapse of Icelandic banks, thereby affecting the Icelandic economy. Iceland argued that the UK's intervention was illegal, violating the fundamental principle of national sovereignty, and invoked international treaties on foreign investments and the protection of creditors' rights.

At a practical level, multidisciplinary in legal theory involves integrating elements from other disciplines to enhance the legal analysis of a dispute and determine applicable law. In international commercial disputes, legal theory has been used to analyze norms and principles of international commercial law, while economics and political theory have been used to examine the political motives of each country's trade policy and its effects on others.

From this specific example, among many others that could be cited, we deduce that transdisciplinary education would develop universal rules and norms for issues affecting the entire world, such as new technologies, climate change, economic development, international peace and security, and human rights. Integrating new digital technologies and digital law into international norms and practices leads to new debates and visions, particularly concerning the regulation of personal data, cybersecurity, and norms governing emerging technologies such as artificial intelligence and autonomous robots. The legal regime of the digital nomad could, at some level, represent the practical application of a special cosmopolitan citizenship. This type of citizenship could increasingly be integrated into the legal theory of international law, promoting the idea that all individuals are equal and have universal rights that need protection under international law.

Greater collaboration and synergy between legal departments and other

disciplines will lead to surprising outcomes. In an atmosphere marked by increasing internationalization and interconnectedness in economics, politics, and culture, law can fulfill its mission in regulating and protecting the interests of the Earth, states, and individuals in a composite global environment. It is a unique opportunity to achieve harmony.

The Chair for Integrative Studies at the University of Basel is another example. It has promoted research projects integrating natural and social sciences, with remarkable results in public health and environmental protection. The Department of Environmental Sciences (DUW), with its five headquarters and four external sites, covers two major research areas: integrative biology and earth sciences. In 2022, DUW comprises 17 chairs and an Eccellenza-Professorship of the SNF, as well as more than 200 employees. DUW offers study programs in Biology, Earth Sciences, Integrative Prehistory and Archaeological Sciences, Sustainable Development, as well as the Transfaculty Transversal Sustainable Development Program. Additionally, it is possible to pursue doctoral studies in various fields⁹.

In the quest for examples, careful attention must be paid to integrative education, not just what we call transdisciplinary education literally, because over time, the names have swung between various terms intended to reflect the same thing in reality. A definite demarcation point is that transdisciplinarity encompasses all these types of research or education in its understanding without prioritizing one over the other, but rather adapting to the purpose.

Although international chairs of transdisciplinarity have had a positive impact, they face numerous difficulties such as limited resources, institutional resistance due to their hierarchical structures and disciplinary compartmentalization, and the need for continuous training within transdisciplinary projects, both for faculty and students. Despite these challenges, the priority lies in the fact that an international chair of transdisciplinarity in law and beyond can facilitate partnerships between universities, non-governmental organizations, and governmental institutions from various countries¹⁰.

Below we have developed a chart of the current priorities of international law, showing the synergy of innovation with the most pressing priorities of the field.

Diagram illustrating the necessary international law regulations according to priorities¹¹:

1. Armed Conflicts and International Security - the highest priority;

⁹ See details on the official website of the University of Basel, The Department of Environmental Sciences available here: <https://duw.unibas.ch/en/department/>, accessed May 1, 2024.

¹⁰ These partnerships enable the exchange of knowledge and resources, promoting innovative and effective solutions globally.

¹¹ These areas are critical for addressing contemporary global challenges and ensuring international peace and stability. Prioritizing them reflects the need to address urgent issues and develop robust and effective legal frameworks. The diagram is based on my perception based on several studies.

2. Climate Change;
3. Global Pandemic;
4. Strengthening International Institutions;
5. Regional Cooperation;
6. Legal Innovation.

The last three are elements of synergy to solve the first three.

Diagram 1



Source: created by the author

Because the end of a study allows us to succinctly reformulate some concentrated remarks, I will present them in the form of a diagram that has these parameters:

Classification Breakdown

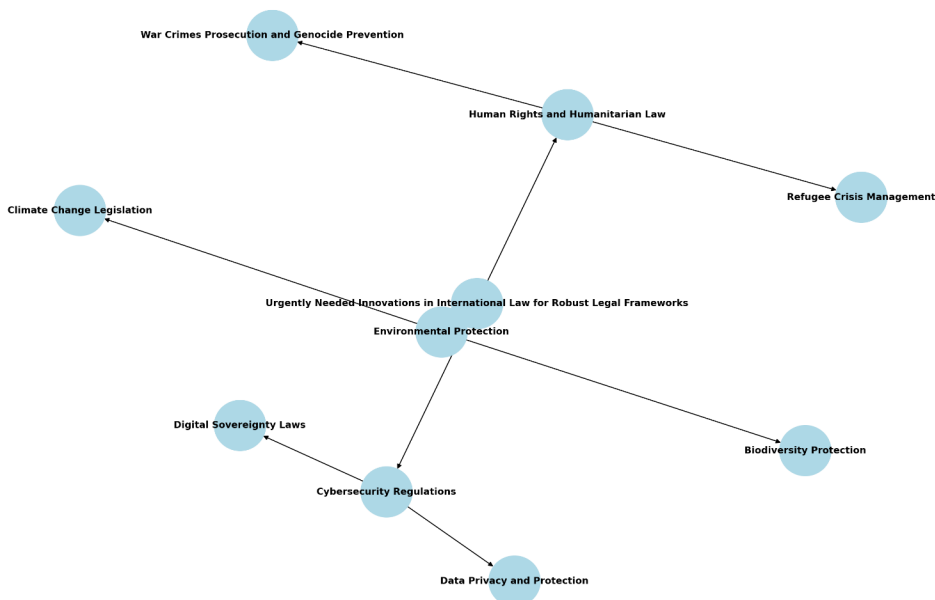
1. Cybersecurity Regulations
 - Data Privacy and Protection:
Implementing global standards for data privacy to protect individuals' information.
 - Digital Sovereignty Laws:
Ensuring nations have control over their digital infrastructure and data but respecting the general principles of international law.
2. Environmental Protection
 - Climate Change Legislation:
Creating binding international agreements to combat climate change.
 - Biodiversity Protection:

- Enforcing laws to preserve biodiversity and protect endangered species.
- 3. Human Rights and Humanitarian Law
 - Refugee Crisis Management: Developing comprehensive international frameworks for managing refugee movements and ensuring their rights.
 - War Crimes Prosecution and Genocide Prevention: Strengthening international mechanisms to prosecute war crimes and prevent genocide.
- 4. Objective of Innovations
 - Urgent Issues: These innovations address pressing global challenges like cyber threats, environmental degradation, and human rights violations.
 - Robust Legal Frameworks: They aim to establish effective and enforceable international legal standards that can adapt to evolving global dynamics.

This diagram and classification highlight the urgent areas where innovation in international law is the key, ensuring that global legal frameworks remain robust and effective in addressing contemporary challenges.

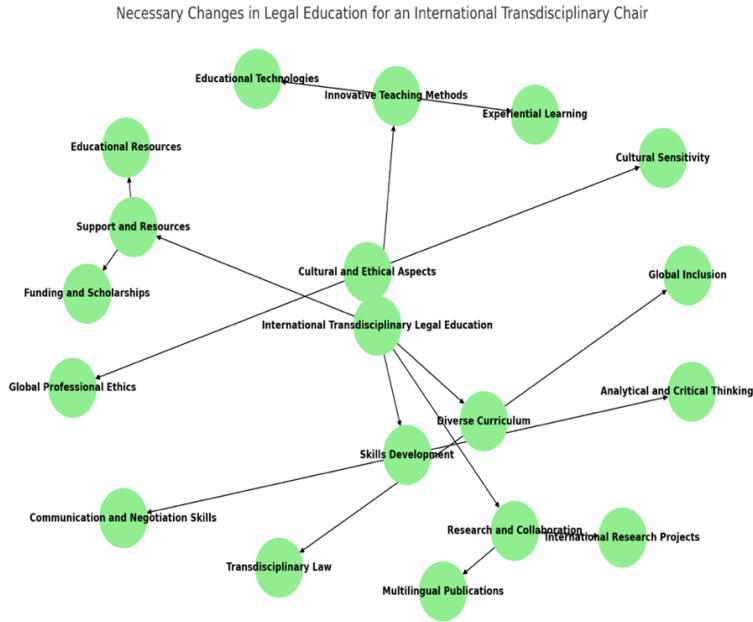
Diagram 2

Urgently Needed Innovations in International Law for Robust Legal Frameworks



Source: created by the author

Diagram 3



Source: created by the author

3. Conclusions

The most appropriate way to summarize and draw some logical conclusions is to use a "mind map" diagram of the changes needed in legal education to create a transdisciplinary international legal education department. Each main branch and sub-branch is clearly indicated, giving as eloquent a view as possible of the essential elements for achieving this objective.

In the structure of the conclusions, I focused on the innovations necessary for developing a transdisciplinary curriculum in law in general, and international law in particular, to highlight the fundamental role of transdisciplinarity. It is seen as a catalyst for global collaboration and knowledge development, complementing and linking traditional disciplinary methodologies rather than nullifying them. Transdisciplinarity not only connects different disciplines but also creates bridges to what lies beyond their boundaries, offering a new vision of nature and reality.

The importance of an international chair of transdisciplinarity is emphasized, presented as a platform for cooperation among researchers and institutions from various countries, aimed at facilitating the exchange of ideas and best practices, developing innovative educational programs, and supporting applied research. Its positive impact on public policies and international regulations is underscored, citing examples such as UNESCO, which promotes dialogue between

science and society on an international level.

The diagram presented at the beginning of these conclusions outlines relevant solutions for implementing an international chair of transdisciplinarity concretely, focusing exemplarily on law in this case.

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