

Title	Private International Law Aspects of the Digital Economy: Report
Document	Prel. Doc. No 5A of February 2024
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Agenda Item	Item II.5
Mandate(s)	C&D No 15 of CGAP 2023
Objective	To report on the status of work relating to the Digital Economy project
Action to be Taken	For Decision <input checked="" type="checkbox"/> For Approval <input type="checkbox"/> For Discussion <input type="checkbox"/> For Action / Completion <input type="checkbox"/> For Information <input checked="" type="checkbox"/>
Annexes	N/A
Related Documents	Prel. Doc. No 5B of January 2024 Prel. Doc. No 3A of January 2023

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Private International Law Aspects of the Digital Economy: Report

I. Introduction

- 1 At its March 2023 meeting, the Council on General Affairs and Policy (CGAP) noted the outcomes of the 2022 HCCH Conference on Commercial, Digital and Financial Law Across Borders (CODIFI Conference), and invited the Members to identify to the Permanent Bureau (PB) the outcomes of the CODIFI Conference with the highest desirability and feasibility for potential future normative work.¹ CGAP further mandated the PB to continue, subject to available resources,
 - a. monitoring developments with respect to artificial intelligence (AI), digital platforms and automated contracting, in partnership with subject-matter experts and with the United Nations Commission on International Trade Law (UNCITRAL);
 - b. monitoring developments with respect to the digital economy, with a view to identifying private international law (PIL) issues for potential future work;
 - c. developing activities concerning topics falling under the purview of the HCCH International Commercial, Digital and Financial Law Division; and
 - d. work with other organisations in the field, such as UNCITRAL and the International Institute for the Unification of Private Law (UNIDROIT).²

This Prel. Doc. reports on the work carried out over the last year in fulfilment of these mandates.

II. Initiatives Relating to the Digital Economy

- 2 The PB has continued to coordinate, including through participation as an observer, with other organisations' current work in this area. In particular, the PB cooperates and coordinates closely with UNCITRAL as an Observer in UNCITRAL Working Group IV on Electronic Commerce³ and Working Group V on Insolvency.⁴
- 3 The PB has continued to closely cooperate with the UNCITRAL Secretariat on a secretariat-to-secretariat basis on projects of mutual relevance. The UNCITRAL Secretariat is continuing its work on the preparation of a guidance document on legal issues relating to the use of distributed ledger systems in trade in cooperation with other concerned organisations, in line with the request of the UNCITRAL Commission at its 56th session to continue and finalise that work.⁵ The scope of work includes, but is not limited to, payment services. The PB provides substantive input to this guidance document on PIL matters, and the UNCITRAL Secretariat expects to finalise a preliminary draft for validation by experts in an online meeting to take place tentatively in mid-March 2024. The draft of the guidance document, which is being prepared by the UNCITRAL Secretariat with the input of the PB, will be sent to the UNCITRAL Commission for consideration in mid-2024 and this project is planned for completion in 2025.

¹ Conclusion and Decision (C&D) No 14 of CGAP 2023, available on the HCCH website at www.hcch.net under "Governance" then "Council on General Affairs and Policy" and "Archive 2000-2023".

² C&D No 15 of CGAP 2023, available on the HCCH website at www.hcch.net (see path indicated in note 1).

³ Background documents on the work of UNCITRAL Working Group IV on Electronic Commerce can be found on the UNCITRAL website at https://uncitral.un.org/en/working_groups/4/electronic_commerce.

⁴ For the purposes of the report in this document, UNCITRAL Working Group V is currently also looking at the treatment of digital assets in insolvency proceedings, see "Private International Law Aspects of Restructuring and Insolvency: Update", Prel. Doc. No 6 of January 2024, available on the HCCH website www.hcch.net under "Governance" then "Council on General Affairs and Policy".

⁵ UNCITRAL, UN Doc. A/78/17, at <https://documents.un.org/doc/undoc/gen/v23/063/70/pdf/v2306370.pdf?token=FOAJD3iycZbtvFfaZV&fe=true>, at paras 22(e) and 200-202.

- 4 With a view to identifying PIL issues, the PB has also continued to monitor developments in relation to the following aspects of the digital economy over the past year: digital platforms, AI and automated contracting, and immersive technologies.

III. PIL Aspects of the Digital Economy

A. Digital Platforms

- 5 The PB has continued to monitor developments in the use and application of digital platforms with PIL implications. “Digital platforms” refer to “digital infrastructure enabling interaction among multiple groups”.⁶ In its 2020 progress report to the UNCITRAL Commission, the UNCITRAL Secretariat identified online platforms as a topic of interest,⁷ and in 2021, the UNCITRAL Secretariat proposed that exploratory work continue “with a view to formulating concrete proposals for international harmonisation and legislative guidance”.⁸ At the CODIFI Conference in 2022, the Secretary of UNCITRAL identified online platforms as one of the areas in which study in relation to PIL matters would be most timely and useful. Experts participating in the CODIFI Conference also noted that case studies in the harmonisation of cross-border digital platforms, such as the Hong Kong Stock Connect programme and the ASEAN Trading Link, demonstrated that establishing clear frameworks on the applicable law was crucial.⁹
- 6 Over the last year the PB has continued to monitor developments in PIL matters relating to digital platforms and the platform economy. Digital platforms operate across varied sectors, enabling different types of interactions between different categories of parties. PIL issues manifest in various ways in the platform economy, depending on the relationships that arise,¹⁰ for instance:
- a. Between the platform and the user: The relationship between the platform and the user typically is contractual and, of relevance to PIL, typically relies on choice of law clauses.
 - b. Between users: Questions arise where there is no valid choice of law, as is often the case in peer-to-peer digital environments;
 - c. Between the platform and / or its user, and the non-user: Where there is no pre-existing relationship between these parties, questions may arise where a harm is done to the non-user, in particular in relation to tortious claims. There may also be questions in relation to the law applicable to the determination of the liability of intermediaries.¹¹
- 7 In relationships between platforms and their users, three specific PIL issues arise:
- a. The determination of the law applicable to contracts between the platform and the user is generally uncomplicated (with the most novel issues arising out of the question of the protection of weaker parties). However, tortious matters give rise to questions of the law applicable, as a rule for the law applicable based on the place of the user’s actual location or the user’s habitual residence may conflict with the contractual terms of the platform.

⁶ See D. Yokomizo, “Digital Platforms and Conflict of Laws”, (2021), 64 *Japanese Yb of Int’l Law* 202, at p. 202.

⁷ UN Doc. A/CN.9/1012, at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/V20/024/68/PDF/V2002468.pdf?OpenElement2002468.pdf>, at paras 33-35.

⁸ UN Doc. A/CN.9/1064/Add.3, at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/V21/030/60/PDF/V2103060.pdf>, at para. 25.

⁹ Angelina Kwan, Opening of the HCCH Securities Convention Track, on 12 September 2022, see [Prel. Doc. No 3A of January 2023](#), Annex I, para. 20.

¹⁰ See T. Lutz, “Private ordering, the platform economy and the regulatory potential of private international law”, in I. Pretelli (ed.) *Conflict of Laws in the maze of digital platforms*, (Schulthess: 2018), pp. 129-143.

¹¹ See D. Yokomizo, *supra* note 66, at p. 216.

- b. An increasing number of cases are being litigated between aggrieved users and online platforms in which user-plaintiffs have argued that, where they have suffered a wrong done by another user, platform hosts are obliged to either sanction the (allegedly) offending user or otherwise remedy the wrong. The question that arises is whether choice of court and choice of law clauses in contracts entered into between users and the relevant digital platforms may go some way towards resolving such questions.¹²
- c. In the matter of the protection of weaker parties, while some jurisdictions have specific PIL rules that protect weaker parties such as consumers and employees, these sector-specific rules do not apply to protect the small and medium-sized enterprises that also take part in transactions on digital platforms, leaving a lacuna in the PIL framework.¹³

8 The fastest-growing use case of digital platforms, in particular on distributed storage mechanisms, is decentralised finance (DeFi). DeFi platforms bring together a wide spectrum of financial market participants and has been attracting significant capital and liquidity pools in the international and cross-border financial ecosystem. DeFi platforms operate on distributed systems based on technology such as distributed ledger technology (DLT). As such, DeFi platforms operate without a centralised authority or physical presence, and their transactions can be executed automatically. This means of operation imposes complexities in connecting a transaction on a DeFi platform (an intrinsically borderless set of algorithms with stakeholders in a network economy spread across the globe) to a location for the determination of jurisdiction and applicable law through the application of traditional connecting factors.¹⁴

B. AI and Automated Contracting

9 The PB has continued to monitor PIL developments in relation to AI and automated contracting, including developments in legislation and jurisprudence in the field. As described in paragraph 2 above, the PB also participates as an Observer in UNCITRAL Working Group IV on Electronic Commerce. Since April 2022, Working Group IV has been advancing work on automated contracting. In November 2022, Working Group IV started a process of distilling principles on the topic from existing UNCITRAL texts and developing additional principles on legal issues not fully addressed in those texts in November 2022 and, at its 65th session in April 2023, Working Group IV advanced the development of draft principles on the topic.¹⁵ At its 66th session in October 2023, Working Group IV considered the revised set of draft principles on “the use of artificial intelligence and automation in contracting”, also in light of views that the principle of functional equivalence should not guide its work on the topic given that the functions pursued by automated systems did not always have a clear paper equivalent.¹⁶ Working Group IV agreed to request the UNCITRAL Secretariat to prepare a revised set of principles, recast as provisions and accompanied by explanatory material for consideration at its next session with a view to finalisation for adoption by the Commission at its 57th session in July 2024.¹⁷

¹² *Ibid.*, at p. 134.

¹³ Most of these laws enable the use of a specific mandatory rule of law from the jurisdiction in which these weaker parties are habitually resident, see D. Yokonizo, *supra* note 6, at p. 225.

¹⁴ D.A. Zetzsche, D.W. Arner, and R.P. Buckley, “Decentralized Finance”, (2020) 6(2) J. Financial Regulation 172, at pp. 184-185.

¹⁵ UNCITRAL, Report of Working Group IV (Electronic Commerce) in the work of its sixty-sixth session (Vienna, 16-20 October 2023), at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/V23/O83/23/PDF/V2308323.pdf?OpenElement>, para. 12.

¹⁶ *Ibid.*, para. 13. The revised set of draft principles is laid out in UNCITRAL, Draft provisions on automated contracting: Note by the Secretariat (14 August 2023), UN. Doc. A/CN.9/WG.IV/WP.182.

¹⁷ UNCITRAL, Report of Working Group IV (Electronic Commerce) in the work of its sixty-sixth session (Vienna, 16-20 October 2023), *supra* note 15, at para. 93.

10 Notwithstanding the lack of a uniformly accepted definition of what AI entails,¹⁸ the adoption of AI in applications, in particular generative AI, has led to innovations in various fields, in particular automated contracting. While automated contracting is not a new concept, having been the basis of applications such as point-of-sale systems and electronic data interchange (EDI) for many decades, the use of automated contracting has dramatically expanded with the growth of the digital economy.¹⁹ Today, the use of automated contracting in smart contracts, computable contracts, and algorithmic contracts has meant an increased reliance on AI in both commercial and end-user contracts.²⁰ In particular, transactions conducted on online platforms and smart devices (including high-frequency trading transactions) can involve interactions between a human and an automated system, or interactions between automated systems (referred to as “M2M contracting”). Automation at the different stages of the contract life cycle, together with legal tech software that automate applications in the contract life cycle from drafting to negotiation and management to analysis,²¹ allow for the streamlining and systematising of cross-border contracting on digital platforms.

11 Developments in AI and automated contracting have raised several PIL questions:

- a. Determination of applicable law: When AI-driven technologies perform acts or take part in transactions, the online nature of most AI-driven systems may make traditional connecting factors difficult to apply.
- b. Jurisdiction: The use of AI-driven systems may make determining jurisdiction difficult due to the challenges in determining location in online platforms (these challenges may also include the application of the *forum non conveniens* doctrine, where relevant). Another challenge relates to the identification of the type of harm that an AI-driven system may cause, and to the localisation of such harm, since traditionally *situs*-based PIL connecting factors may not be useful in linking the occurrence of the damage with a certain jurisdiction. For example, a generative AI-driven online or networked system that is not localised to a particular *situs* may scrape data from one website in a particular jurisdiction in order to generate new content on another website sited elsewhere.²²
- c. Recognition and enforcement: The enforcement of foreign judgments may be challenging as a result of various jurisdictions’ approaches to AI-driven systems, which may see public policy and other concerns presenting obstacles to the recognition and enforcement of decisions and judgments both in situations where AI-driven algorithms and tools are partially involved, and where they are empowered to render final decisions.

¹⁸ Council of Europe, *Ad Hoc* Committee on Artificial Intelligence (CAHAI), “[Feasibility Study](#)”, 17 December 2020, at Section II. One definition can be found in Art. 3(1) of the proposal for a European Union’s Artificial Intelligence Act, which describes an AI system as “software that is developed with one or more of the techniques and approaches listed in Annex I [e.g., machine learning approaches] and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with.” Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, COM/2021/206. This definition is similar to that used by the Organisation for Economic Co-operation and Development (OECD), see OECD, [Recommendation of the Council on Artificial Intelligence](#), 2019.

¹⁹ F. Martin-Bariteau and M. Pavlović, “AI and Contract Law” in F. Martin-Bariteau and T. Scassa (eds.), [Artificial Intelligence and the Law in Canada Toronto](#): LexisNexis Canada, [2021], at pp. 4ff.

²⁰ *Ibid.*

²¹ See M. Ebers, “Artificial Intelligence, contracting and contract law” In M. Ebers et al (eds.), *Contracting and contract law in the age of artificial intelligence*, (2022: Bloomsbury) 102.

²² M. Ho-Dac, and C. Pellegrini, *Governance of Artificial Intelligence in the European Union: What Place for Consumer Protection?*, (Bruylant: 2023) at pp. 303 ff.

C. Immersive Technologies

- 12 Immersive technologies have created a virtual multi-purpose platform in which, empowered by virtual and augmented reality and methods of transacting based on distributed storage mechanisms, individuals, businesses and other entities can create, act, react and transact in relation to both real-world as well as virtual items. Immersive technologies have found applications in a plethora of use cases ranging from entertainment²³ and gaming,²⁴ to litigation and arbitration proceedings,²⁵ real estate and digital communications.²⁶
- 13 PIL questions arise in immersive technologies not only from the nature of the networked platforms on which these technologies operate, but also from the seamless connection between digital and real-world objects. Here, traditional connecting factors may not apply, leading to challenges in identifying the applicable law (which may or may not address the platform as a whole, or may address a single transaction or user), and the possible anonymity or pseudonymity with which users interact in immersive technology platforms. It therefore becomes a challenge to connect events, assets, and actors where they may not have (validly) agreed on applicable laws and jurisdiction.²⁷

IV. Proposal for CGAP

- 14 The PB invites CGAP to note the issues described in this Prel. Doc. in relation to the digital economy, and proposes the following Conclusions and Decisions for CGAP's consideration:

CGAP mandated the PB to continue, subject to available resources:

- a. monitoring developments with respect to digital platforms, AI and automated contracting, and immersive technologies, including in partnership with subject-matter experts and with UNCITRAL;
- b. working with UNCITRAL and other organisations with relevant expertise on matters relating to the PIL aspects of the digital economy;
- c. monitoring developments with respect to the digital economy, with a view to identifying PIL issues for potential future work; and
- d. developing activities concerning topics falling under the purview of the HCCH International Commercial, Digital and Financial Law Division.

²³ For example, over 12 million users joined the Fortnite platform to watch a virtual concert by entertainer Travis Scott in April 2020, see J.H. Park, "[The Direction and Implications of the Content Industry in the Metaverse Era](#)", (2022) 26(6) *KIET Industrial Economic Review* 55.

²⁴ The number of monthly users of Roblox, an immersive technology game, exceeds 150 million, see B.A. Calli and C. Ediz, "[Top concerns of user experiences in Metaverse games: a text-mining based approach](#)", (May 2023), 46 *Entertainment Computing* (Elsevier), Science Direct.

²⁵ T.T. Hsieh *et al*, "[Intellectual Property in the Era of AI, Blockchain and Web 3.0](#)", (March 2023), *Blockchain and Web 3*.

²⁶ See generally D. Mitchell, A. Pearson and T.D. Peters (eds.), *Law, Video Games, Virtual Realities: Playing Law*, (Routledge 2024).

²⁷ See generally European Parliament, Briefing "[Metaverse Opportunities, risks and policy implications](#)", June 2022, see also Grayscale Research, "[The Metaverse](#)", November 2021.