# BABEȘ-BOLYAI UNIVERSITY INSTITUTE OF DOCTORAL STUDIES FACULTY OF LAW

# THE TRANSER OF DIGITAL CONTENT - SUMMARY -

PhD Supervisor: Prof. Dr. Ionuț-Florin Popa

**PhD Candidate: Sorana Brisc** 

Cluj-Napoca 2025

# **SUMMARY**

Through my thesis, "Transfer of Digital Content", I have examined the impact of the digital phenomenon on private law relationships. In the context of emerging European legislation and the absence of a domestic national legal framework on the supply of digital content and services, understanding the legal framework of digital contracts is not an easily undertaken task. From this perspective, the effort to legally qualify digital content within contract law constitutes an imperative exercise of legal interpretation, regarding the new contractual structures that are so prevalent in today's economy.

In the first part of the thesis, I have outlined a key point to note: the 21st century digital revolution has called for a reform of private law. It is clear that private law can adapt to the digital realm but recent contracts in the consumer economy, such as digital supply contracts, or, as the European legislator refers to them, contracts for the supply of digital content and services, require intervention through regulation. The need for legal norms in the digital consumer market, whether imperative or supplementary, arises from the multifaceted nature of the legal qualification of digital acts and legal facts. Only through a convergent application of contract law, intellectual property, competition, and data protection laws will digital supply contracts receive a coherent legal response. Furthermore, artificial intelligence has overwhelmed cyberspace, and through the immeasurable popularity of smart products and their associated risks, artificial intelligence certifies the need for regulation. Therefore, in a digital economy with unpredictable development even for the main market actors, contract law could prove insufficient in the face of the multifaceted legal effects of digital contracts.

The second idea in the first part is that the digitization paradigm also impacts the European legal space. The European Union has recognized the extent of digital influence on private law since 2015, when it launched the Digital Single Market strategy. With remarkable determination, the European Union "leveraged" the digital revolution as a catalyst to accelerate the creation of a unified European contract law, a goal pursued since the late 20<sup>th</sup> century, when the idea of codifying European private law first emerged. Indeed, what we observe in European legislation is essentially the reflection of academic efforts to establish a European contract law, manifested in codifications that lack legal force. Digitization has further motivated the European legislator to solidify their plan for a European normative contract law, at least in the context of consumer relations.

I stated that relationships formed and executed digitally could not be treated, in legal terms, in any way other than by reference to the common heritage of European states, the

Roman and Canon law, which were borrowed and incorporated into the European civil codes. There is a clear tendency to accept the agreement of wills at the core of the digital contract because, despite the plurality of pan-European legal systems, a common European contract law has been developed through academic work, secondary legislation by the European Union, and the adoption of international conventions aimed at harmonizing substantive law. I pointed out that, although the contract does not have a transnational or universal definition, it is an autonomous concept, and the European Union adopts numerous regulatory acts in contractual matters. Through its acts, EU proves the preconceived idea of an implied agreement of wills, a consensus ad idem as the foundation of the contract, owing the roots of the law in the common law of the member states.

Therefore, the third idea in the first part is that, like any other contract, the contract of the supply of digital content and services is simply an agreement of wills, formed with the intention of creating, modifying, or extinguishing legal effects. It is characterized by a specific derivative object, namely the supply of digital content and services. I referred to it as a "digital contract". I also pointed out that the supply of digital content does not constitute a homogeneous category, as the characteristic performance of the contract is not uniform either; the digital supply contract is, in fact, an unnamed contract.

I pointed out that the European Union made a significant advancement in the development of European private law by adopting Directive (EU) 2019/770, which was transposed into national legislation through O.U.G. no. 141/2021, and Directive (EU) 2019/771, transposed at the national level by O.U.G. no. 140/2021. Directive (EU) 2019/770 [DCD] reflects the European Union's sustained effort to implement what has already been outlined in European codifications, though it applies only to consumer contracts.

In essence, the DCD regulates two main obligations of the supplier of digital content and services: the obligation to supply and the conformity obligation. Along with Directive (EU) 2019/771 [DVB], which pertains to the consumer contracts for the sale of goods (and software embedded goods), the DCD introduces substantive legal rules and, most importantly, establishes full harmonization. Member states are required to make an exact transposition of these rules. However, aspects related to the formation or validity of the contract, exception for non-performance, contractual liability, unilateral termination, pre-contractual information, or the control of unfair terms, are not regulated by the DCD. As a result, these aspects remain governed by other European regulations, and where no such regulations exist, by domestic law.

I have shown that the DCD and DVB are inspired by the acquis of the European Union, particularly by the European Regulation on the Common European Sales Law [DECV], a European project that was abandoned and holds academic value comparable to European codifications without legal force. As stated in DECV, the legislator chose to regulate the conformity of digital content by adopting the monistic thesis of conformity, introducing the dual concepts of objective conformity and subjective conformity, and, for the first time, regulating the obligation to update. In reality, the DCD and DVB represent a compromise following the failure to adopt DECV.

I have shown that the notions of digital content and digital services are now defined within the DCD. From the definition of digital content as "data produced and supplied in digital form" [art. 2(5) DCD], we understand that the foundation of digital content and services is data, which powers emerging economies.

Data, understood as codified information, and its legal nature are subjects of intense debate in specialized literature, however, with no consensus. I stated that data has patrimonial value and, therefore, could be susceptible to appropriation, making it comparable to physical goods. The immaterial and versatile nature of data has led to the development of theories regarding data appropriation and control, some of these being purely doctrinal creations, such as the theory of dematerialized ownership of data, while others are genuine academic soft law projects. One such project is the initiative led by the American Law Institute (ALI) and the European Law Institute (ELI) to create the ALI-ELI Principles on the Data-Driven Economy.

Digital services, on the other hand, are those provided through computer programs. The internet offers a vast array of such services, which are classified as digital services. This category includes traditional computer programs licensed and stored on physical media, cloud-based services, stream-based services, digital platforms for content creation, and smart contracts.

The notion of "supply" can take the form of a vast and immeasurable variety of contractual services. It is highly unlikely that we will find an exact counterpart in domestic law, as the digital contract is essentially an unnamed contract of exploitation. However, the technological experience shaped by economic models created by large companies offering digital content and services has even us to classify digital contracts based on criteria that have undeniable practical implications.

In the second part of the thesis, I discussed the formation of the contract of the supply of digital content and services. When examining the formation of the digital contract through the lens of external agreement of wills, I emphasized the central idea that, in principle, the digital contract is an electronic contract, meaning it is a contract concluded by electronic means. The two notions, however, are not interchangeable: the digital contract is characterized by the object of the obligation (digital supply), while the electronic contract is classified based on the electronic means used to form it.

I also showed that the electronic formation of the contract has a complex regulatory framework that is difficult to follow and apply without the risk of errors. The Romanian texts transposing Directive 2000/31/CE [Law no. 365/2002] inexplicably deviate from well-established rules in civil law, adopted by most European legal systems, such as the rule regarding the reception of acceptance in contract formation, which conditions the contract's formation on the knowledge of the acceptance of the offer. In the B2C context, however, O.U.G. no. 34/2014 (transposing Directive 2011/83/EU) thankfully returns to the rule of reception of acceptance.

I have shown that in electronic commerce, commercial practices have been established that serve as means of proof for the very formation of the agreement of wills, with the clickwrap technique being the most well-known. In the area of supply of digital content and services, the businesses frequently use different mechanisms for confirming the identity of the individual, while this provides guarantees for the validity of the individual's consent.

Looking at the formation of the contract through the lens of internal agreement of wills, I observed that two essential conditions for the validity of contracts, cause and consent pose truly new legal challenges. The consideration of the digital supply is, in fact, the processing of the consumer's personal data. The DCD, for the first time, affirms and enshrines with legal effects these contracts with personal data processing considerations as being synallagmatic contracts. The DCD-GDPR connection starts from the data subject's consent, which, in the law of obligations, gives the contract binding force, while in personal data protection law, it legitimizes data processing.

We have concluded that the data processing agreement is distinct and independent from consent, which is a condition for the validity of the contract. In principle, the exercise of the right to withdraw consent does not affect the contract. However, an exception, that has become almost universal, is that of contracts where data processing is the very consideration for the characteristic obligation. This is the case for most contracts governed by the DCD, where consent for data processing serves as the legal cause for the supplier's obligation, without which

the contract cannot exist. In these cases, the subsequent withdrawal of the data processing consent, exercised under the conditions of Article 7(3) of the GDPR, implicitly affects the contract and results in its termination by rescission.

\*\*\*

The third part of the paper forms the core of the thesis. It addresses the proper execution of the delivery obligation and digital compliance. I emphasized the two main obligations of the supplier of digital content and services: the *obligation to supply* and the *obligation of conformity*. A teleological view of art. 5 DCD reveals that, in fact, the European legislator transplants a well-known conception of the seller's obligations in the field of international sales through the Vienna Convention. It is the first time that a normative act adopts the delivery-conformity paradigm, characteristic of the sale of goods, and transcribes it into the binary of supply-conformity. This demonstrates that, in European contract law, there is a unified and coherent system of performance of obligations, with the sale being, in essence, the matrix for any other contract.

Like any obligation, the obligation to supply must correspond precisely to what was agreed by the parties and what is prescribed by law. I examined this correspondence through its four dimensions: the correspondence of object (What?), manner (How?), place (Where?), and time (When?).

The first area of analysis was the correspondence of object, which answers the question "What was the supplier required to supply?". Here, I focused on the question of whether the supply of digital content can ever be considered an obligation to "sell" digital content, meaning to transfer or create a property right.

I explained why, currently, delivery is not an obligation "to give", despite the fact that the digital content market demands proprietary rights, beyond those relative, *inter partes*, rights. In the absence of legislation, we cannot affirm that the supply of digital content transfers ownership but the main reason is not necessarily that intangible goods are not appropriable. Even assuming that property extends to intangible goods, in practice, data will not meet the requirement of being naturally determinable. For any form of data disposition to be validated, a law affirming it is necessary.

What we were able to deduce, however, from the current digital market research, is that the 'acquirer' of digital content is possessive, behaves as if he/she owns it, and this behaviour holds the European authority responsible. I provided examples from the cloud gaming industry or online platforms, where digital values are ceded, traded, ported, claimed, or seized like physical goods, while these markets are worth billions of dollars.

I have shown that in this context, the consumer of digital content should benefit from a legal guarantee of patrimonial rights, a protection currently recognized only through convention and custom. Indeed, the nature of patrimonial rights over digital assets, especially digital content, requires clarification from legislative authorities, through debates and converging perspectives.

I noted that we are witnessing a true revolution, not only technological but also legal. Following the evolutionary model of intellectual property rights, a new right is taking shape, the right to data. The right to data is consolidating new subjective patrimonial rights, both exclusive and exclusionary, which digital content consumers can exercise freely, not just against their contractual partner, the supplier, but *erga omnes*, much like a real right.

Indeed, the European Union has proven to be highly receptive to the digital consumer market, and recent legislative acts demonstrate this, taking small but significant steps toward forming a new data right. One example is Regulation (EU) no. 2023/2954 [Data Act], which, in art. 34, recognizes the consumer's right to dispose of their non-personal data through porting, in addition to the personal data they already control under the GDPR. We also have art. 16(4) of the DCD, which stipulates that at the termination of the digital contract, non-personal data (and not just personal data as provided by the GDPR) must be returned to the consumer. This proves a reform in full progress, where the disposition over data is set to become a legal reality.

Regarding the manner of correspondence, which answers the question, "How did the supplier have to provide?", this is addressed in the normative text of art. 5 (2) DCD. From the wording of the law, we understand that there are at least three digital supply models: the supply of digital content on tangible media, the supply of digital content via download, and the supply via streaming.

Although the differences between the three models are primarily technical, they give rise to various legal effects. This is due to factors such as how the normative acts were designed (for instance, the obligation to supply on tangible media is excluded from the scope of the DCD and is instead governed by the delivery obligation under art. 18 Directive 2011/83/EU), the interpretive jurisprudence of the Court of Justice of the European Union regarding intellectual property (e.g., the judgment in Case C-128/11, UsedSoft GmbH v. Oracle International Corp., or Case C-263/18, Tom Kabinet, where different effects were recognized depending on whether digital content was classified as propriety or non- propriety), or technical characteristics (for example, the transfer of the contractual risk in supplying digital services via download or streaming).

It is important to understand how the supplier commits to supply digital content or services in order to determine whether the supplier has properly fulfilled his/her obligation to supply. From the perspective of remedies for the obligation to supply, the situation is relatively clear: if digital content has not been supplied, the consumer is, in principle, entitled to the remedy of contract termination and the restitution of the price. The DCD categorically states that the effects of exception for non-performance and contractual liability are governed by domestic law. However, under these conditions, it is left to domesti law, through its mechanisms, to determine whether the supplier is responsible for non-supply. I pointed out that the issue of compliant supplies primarily affects damages, remaining under the governance of domestic law. This, of course, results in uneven application of digital supply regulation, despite the European Union's ongoing efforts to design harmonized EU-wide legislation for the digital consumer market.

Next, I discussed the place of performance to answers the question, "Where did the supplier deliver?" The Directive (EU) 2019/770 does not treat this issue. In practice, the place of performance of the obligation to supply digital content or services is of little relevance, since digital supplies are non-spatial, less so when the supply occurs on tangible media. However, the supply on tangible media is regulated by Directive 2011/83/EU and not by Directive (EU) 2019/770, following the legal regime for the obligation to deliver goods. I pointed out that the issue of the place of performance matters less in determining whether the supplier performed his/her obligation and more in the determining the private international law. In B2C matters, the one we are dealing with, art. 6 Rome I Regulation and Section 4 Brussels Ibis Regulation simplifies the equation by linking the rules of conflict of laws or jurisdiction to the consumer's habitual residence.

The moment of performance, which answers the question "When did the supplier have to deliver?", is addressed in art. 5 (1) first sentence DCD, which states that supply must take place "without undue delay after the conclusion of the contract". I explained how, in digital supplies, "without undue delay" can mean fractions of a second. In any case, the issue of immediate supply differs from that of interruptions in supply. Interruptions are subject to the obligation of conformity under art. 6 DCD.

What is of significant importance, however, are the remedies for failure to supply. Art. 13 DCD seemingly offers only one remedy: the termination of the contract. DCD is silent on the issue of forced specific performance of the obligation to supply. Due to the full level of harmonization, which does not allow Member Stated to deviate from DCD's terms within the scope of the directive, the execution in kind as provided in European civil codes, cannot be

invoked as legal grounds for obtaining the specific performance of digital supply. I argued that the DCD must be understood within the broader context of European consumer legal framework, where the European legislator has consistently avoided imposing rules that might be inconvenient for Member States' traditions (as seen in Directive 1999/44/EC regarding consumer goods sales). The different approaches between continental legal systems, which are more sympathetic to performance in kind, and common law systems, which are resistant to it, are well-known. In the end, I stated that the remedy of performance in kind could be claimed, but only through a broad interpretation of the text of art. 13 DCD, which refers to the additional term for performance.

Even if we overcome the conceptional impediment of the consumers' access to performance *in natura*, the forced performance of the obligation to supply is pragmatically unlikely. Due to its technical nature, it can only be executed by the supplier, as it may be considered an *intuitu personae* obligation, with a somewhat more complicated procedural regime. If we accept that performance in kind can be sought under the DCD, the outcome will depend on domestic procedural law, which varies from one legal system to another.

Finally, the choice between the remedy of termination of the contract (resolution) or performance in kind is influenced by two factors: the impossibility of performance and the economic balance of the remedies. The first factor is a widely accepted rule across European legal systems, while the second is relatively new and subjective, as it depends on the creditor's subjective judgment. I argued that in Romanian law, the refuse to perform the obligation to supply on the grounds that performance is costly for the supplier would be an exception, in the absence of an express legal provision or European norms harmonizing the enforcement of the digital supply obligation.

The second most important obligation is the conformity obligation (art. 6 DCD). Not only must the supplier supply digital content and services as promised, but he/she must also ensure that the products meet the requirements for objective and subjective conformity, as outlined in art. 7, 8, and 9 DCD.

Conformity, understood as an obligation distinct from the obligation to deliver goods as agreed, is not universally familiar across European legal systems. In Romanian law, the Civil Code, following the example of the 1864 Civil Code, influenced by the French codification, does not provide an autonomous obligation of conformity for the goods sold, different from the obligation of deliver. Instead, there is a dualism between apparent defects [art. 1.690 Civil Code] and hidden defects [art. 1.707 Civil Code]. Doctrinally, two different conceptions are discussed: the dualistic thesis on conformity, developed in systems following the French model,

such as the Romanian codification, and the monistic thesis on conformity, found in the BGB [(§ 434 BGB)], introduced in the Vienna Convention [CISG], and adopted into European contract law through Directive 1999/44/EC on the sale of consumer goods and, of course, Directive (EU) 2019/771 that followed. The same choice has been made in the case of Directive (EU) 2019/770 regarding the conformity of digital content and services.

Conformity, in relation to digital content and services, carries a unique meaning: the attributes of functionality, compatibility, accessibility, and security are natural expectations of the consumer of digital content and services.

I also highlighted that, unlike Directive 1999/44/EC on the sale of consumer goods and related warranties, the DCD and DVB introduce the binomial objective conformity - subjective conformity. Subjective conformity encompasses conventional understandings, or rather, the standardized clauses set by the supplier. The subjective standard of conformity, which refers to the supplier's clauses, forms the main benchmark for digital conformity because the conformity of digital content is limited to what the producer or supplier (when they differ) commits to provide. Given that digital content and service providers are aware of the lack of objective standardization in the digital market, they deliberately limit consumer expectations through clauses that restrict the timing of updates, condition access to technical support, and exclude or limit liability. I pointed out that in analysing the expectations that a user may have, the duty to inform plays a crucial role, which stems from Directive 2011/83/EU.

The objective standard of conformity thus supports the consumer, who would otherwise be constrained by the commonly used "As Is" and "As Available" clauses, which are omnipresent in the supplier's "Terms and Conditions". I have shown that the objective standard, which establishes a minimum measure of conformity for digital content and services, plays a significant role, as evidenced by the fact that, for the European market, the same platforms offering digital content, content creation services, or streaming provide more favourable contractual terms than those offered in the U.S. market.

The obligation for the supplier to adhere to an objective standard of conformity is enforced through the mechanism of imperative norms. I have emphasized that, in light of the Digital Content Directive (DCD), contractual clauses remain the primary reference, as stipulated by art. 8(5) DCD, which affirms the supplementary nature of the objective standard of conformity. According to this provision, parties can derogate, through explicit and separately acknowledged clauses, from the characteristics of the digital content or service that have a legitimate market expectation. Since the law does not distinguish between essential and non-essential standards, this legislative relaxation encourages suppliers to introduce clauses that

exclude the legitimate expectations in the digital market. Fortunately, the adoption of the Digital Services Act (DSA) and the Artificial Intelligence Regulation (AI) has established, through their imperative provisions, the obligation for suppliers to ensure that digital products are functional and secure.

I have pointed out that the obligation of updating and the obligation of security are derivatives of digital conformity, and security must be understood in light of the GDPR Regulation, the DMA Regulation, the DSA Regulation, and the AI Regulation. I have also shown that contractual liability, the most effective remedy for the consumer harmed by non-conforming digital content and services, is not subject to harmonization by the Digital Content Directive (DCD) and will find its solution under common law.

The remedies for digital non-conformity were discussed in the final section of the research. Access to remedies is subject to meeting certain general conditions: the non-conformity must pre-exist the provision; the non-conformity must be notified to the supplier; the consumer must respect the legal warranty period, but only for digital goods governed by the Digital Sales Directive (DVB). For digital content and services, the DCD does not establish a period within which non-conformity must occur, leaving the states to provide a warranty period as they see fit.

I have emphasized that access to remedies is not contingent on the supplier's fault regarding the non-conformity of the content, digital service, or digital goods. Fault may be relevant for awarding damages, which are, however, excluded from the governance of the DCD.

I highlighted that remedies for non-performance are divided into two categories: specific performance or "bringing into conformity" on one hand, and the restitution of price or contract termination on the other. These remedies are ranked, relativizing the consumer's choice. However, *favor contractus* is not always a rule compatible with economic interests. This is why the European legislator, in line with modern codifications, introduced the rule of economic balance of remedies for cases when bringing the digital content or service into conformity is excessively costly (art. 14(2) DCD). When ensuring the conformity of digital products exceeds the financial forecasts of the supplier, the consumer will only be able to seek the subsidiary remedy of price reduction or termination, as applicable.

I also pointed out that termination is available to the consumer even when it is clear that the supplier will not perform the conformity obligation, a new rule in European law, since Directive 1999/44/EC did not provide for it. I showed that the rule introduces into European positive law the principle of anticipatory termination (*résolution*), which exists in comparative law. It is certain that the subsidiary remedies of rescission and reduction of price operate in the

same way as in comparative law, with the condition of significant non-performance expressly stated in art. 14(6) DCD (art. 13(5) DVB), while the rule for granting a supplementary period for performance is set out in art. 15 DCD.

The novelty in the area of remedies lies in the effect of contract termination. Whether termination occurs due to non-performance of the obligation to supply or the conformity obligation, the termination of the contract creates two obligations for the supplier: the negative obligation not to use the consumer\s non-personal data (art, 16(3) DCD) and the positive obligation to return it (art. 16(4) DCD). I explained that this rule is not a simple reproduction of the general rule of *restitutio in integrum*. The right to the return of non-personal data, i.e., data that does not fall under the definition of personal data, reminds us of the inextricable link between property rights and the property it pertains to. The "claim" of non-personal data, established in art. 16(4) DCD, is part of the recently expressed policy of the European Union to recognize a form of disposition over data that gives property rights in data an absolute effect, beyond the relative, *inter partes* effect.

\*\*\*

Finally, in the digital era of monetizing data and exploiting virtual behaviour, contractual freedom remains the most valuable principle. Ubiquitous in both European and non-European law, contractual freedom is an expression of individualism. It assumes the individual's ability to make independent decisions, free from external influences, based on their own aspirations. For a party to be truly free, they must be capable of deciding independently.

Through emerging technologies, large digital market players dominate consumers. Thus, protecting the weaker party through the mechanism of imperative norms represents a form of safeguarding contractual freedom, rather than limiting it.

However, despite the commendable goal of rebalancing private relations, the hyper-regulation at the Union level has often been criticized for interfering in the private affairs of the parties and the sovereignty of member states. Indeed, the consumer protection policy has led to an influx of imperative norms. The European Union "hovers" between two contrasting aspirations: protecting consumers and encouraging business. Despite evident efforts, finding a middle ground has proven to be a difficult mission.

This is evidenced by the proliferation of normative acts that have established imperative rules for consumer protection on the European market but, ultimately, discouraged businesses through the unnatural and unpredictable fragmentation of legislation. For example, the protective rules of the Rome I Regulation, which defend consumers through the conflict-of-laws mechanism, have tempted professionals to geographically restrict consumer access to their

products, in the form of geo-blocking practices, thereby reducing the very viable options that essentially define contractual autonomy. The Union's response was once again authoritarian, with a categorical ban on geo-blocking practices following the adoption of Regulation (EU) 2018/302, further complicating an already intricate legal framework. The constant struggle to rebalance these two essentially irreconcilable objectives has caused the legislation to overflow with imperative norms.

We, however, observe a shift in perspective. More recent legislative acts encourage businesses and attempt to eliminate legal fragmentation through full harmonization. The trend was initiated by Directive 2011/83/EU and is continued by the DCD and DVB, so that member states cannot derogate, even with the noble purpose of protecting consumers. The aim is, of course, to eliminate fragmented legislation. Thus, Directive (EU) 2019/770 and (EU) 2019/771 establish more consumer-unfavourable specific rules by removing the imperative nature of norms that require digital products to align with the reasonable expectations of the consumer, limiting the right to choose between certain remedies, or imposing restrictive conditions for accessing them.

However, the need to simplify Union legislation does not at all mean that the rules should be relaxed. One could argue that new technologies provide an opportunity for the consumer market to recover, even without normative intervention. Indeed, until now, it would have been cynical not to intervene legislatively, assuming that the weaker party, with all its vulnerabilities, must find the resources to act independently. Contractual freedom becomes less idealistic in the context of emerging technologies, built on absolute decentralization and mutual trust. The digital revolution has led to the emergence of so-called "smart contracts", which operate according to the rules of distributed ledger technology, based on a complex system of multipartite contractual relations, intended to make the interference of authority through regulation unnecessary. Smart contracts create their own mechanism to support contractual balance, without requiring coercive intervention from state authority, and promise to protect the party from the risk of domination by the other party. Protecting the vulnerable party would represent an automatic and inherent consequence of the contracting mechanism, without the risk of the other party, enjoying a comfortable contractual position, abusing it.

Furthermore, in businesses based on the sharing economy, the review system attached to virtual platforms would also serve as a means of maintaining contractual balance. The system allows the party, even if in a vulnerable position, to express their consent independently, based on information provided by other participants. The digital contract could have the potential to become an exemplary manifestation of freedom, as theorized by 18<sup>th</sup> century philosophers.

The examples above tempt us to believe that new technologies provide an opportunity for contractual freedom to function in the absence of norms. Moreover, we cannot deny that, until now, digital contracts have survived in an unregulated environment, and yet, surprisingly, contractual balance has been calibrated through the mechanism of competitive markets and the transparency offered by the internet. For instance, the issue of updating digital content and services did not have a legislative source at the European level until the adoption of Directive (EU) 2019/770, yet digital content providers took it upon themselves to assume this obligation ex officio. The provider's incentive is more economic in nature, as explosive technologies have the potential to nullify other technologies that cannot keep up. However, regardless of the provider's motivation, it is certain that the provision of digital content and services has functioned even in the absence of a regulatory framework.

On the other hand, the new contractual figures should not be treated with too much enthusiasm. From an empirical perspective, the review-based system is imperfect, with numerous attempts to defraud the reference system. Google, for instance, reserved the right to control it by deleting reviews categorized as "spam", using algorithms trained to identify potential frauds. Similarly, blockchain technology, especially in the context of cryptocurrencies, is viewed with skepticism by state governments, as it has the capacity to fuel illicit businesses uncontrollably.

The experience of new technologies seeks to introduce alternative methods of maintaining contractual balance. At the same time, the relationship with the suppliers of digital content and service operates within a subordinate framework. Due to the vast economic market they control, IT giants hold formidable power. This monopoly is convenient for the postmodern man because the access to digital content or services seems to be gratuitous. The postmodern individual lacks the reflex to protect his/her personal data, being easily tempted to consent to its processing. However, recent history shows us that the trust placed in IT giants has been questioned on numerous occasions. The temptation of suppliers to invade the postmodern individual's intimate space, combined with the latter's frivolity, seduced by the fantasy of the digital world, calls for intervention from authorities through regulation.

In this social and economic formation, shaped by the great hi-tech powers, the European Union stands as a model of discipline through its intransigent laws, carefully crafted not to distort the market. Ultimately, private law must react, but not in a defensive manner, otherwise the assault of authority through imperative norms risks inhibiting the spectacular digital technologies.

**Keywords**: digital content, digital services, software embedded goods, digital contract, digital supply, digital conformity, Directive (EU) 2019/770, Directive (EU) 2019/771, O.U.G. no. 140/2021, O.U.G. no. 141/2021, Rome I Regulation, Brussels Ibis Regulation, European private law, international private law, data, data rights, data ownership, electronic will agreement, electronic contract, contract formation, click-wrap, personal data, monetization of personal data, objective conformity, subjective conformity, obligation to supply on physical media, obligation to supply via download, obligation to supply via streaming, smart contracts, artificial intelligence, DMA Regulation, DSA Regulation, AI Act Regulation, Data Act, Cyber Resilience Regulation, specific performance, bringing into conformity, termination, reduction of price, offer and acceptance, intellectual property, Court of Justice of the European Union, community acquis, B2C, consumer law, consumer, professional, supplier, hidden defects, digital assets, intangible goods.

# TABLE OF CONTENTS

# PRELIMINARIES 5

# PART I. THE DIGITAL CONTRACT 11

# CHAPTER I. INTRODUCTION TO EUROPEAN PRIVATE LAW 11

- §1. General Considerations 11
- 1.1. Historical Coordinates 12
- 1.2. The Weak Party's Freedom 12
- 1.3. European Consumer Sales Law 14
- 1.4. An Implied Consensus ad Idem 16
- 1.5. The Digital Reform of Private Law 23
- §2. The Digitization of Private Contract Law 27
- 2.1. The Digital Contract in the Common Law of Sales 28
- 2.2. The Digital Contract in European Positive Law 32
- 2.3. Aspects of Private International Law 34
- 2.4. Directive (EU) 2019/770 and Directive (EU) 2019/771 37
- §3. Interim Conclusions 50

# **CHAPTER II. CONCEPTS 53**

- §1. Introductory Considerations 53
- §2. Digital Content 55
- 2.1. Definition 55
- 2.2. Data 56
- 2.3. Data Rights 60
- §3. Digital Service 68
- 3.1. Definition 68
- 3.2. Distinctions from Digital Content 71
- §4. Digital Delivery. The Digital Contract 71
- §5. Interim Conclusions 74

# **CHAPTER III. INTERFERENCES 75**

- §1. Digital Delivery and Intellectual Property 75
- §2. Classification of Digital Contracts 77
- §3. Summary Conclusions 87

# PART II. FORMATION OF THE DIGITAL CONTRACT 90 CHAPTER I. CONCLUSION OF THE DIGITAL CONTRACT 91

- §1. The "Digital" Contract and the "Electronic" Contract 91
- §2. Electronic Agreement of Will 93
- 2.1. Lex Specialis 93
- 2.2. Usages. Click-wrap Contracts 106
- §3. Interim Conclusions 114

# CHAPTER II. VALIDITY OF THE DIGITAL CONTRACT 116

- §1. The Cause: Monetization of Personal Data 116
- §2. Consent: Processing of Personal Data 120

# PART III. EFFECTS OF THE DIGITAL CONTRACT 139

# **CHAPTER I. OBLIGATION TO DELIVER 139**

- §1. General Considerations 139
- 1.1. Subject Matter 139
- 1.2. Structure of the Obligation 140
- 1.3. Inspiration 140
- 1.4. The Binomial of Conformity Performance: Delivery-Supply 141
- §2. Content of the Delivery Obligation 144
- 2.1. Object Correspondence: What? 146
- 2.1.1. Providing Digital Content 146
- 2.1.2. Comparative Law Elements 149
- 2.1.3. Data Ownership and Intellectual Property 179
- 2.1.4. Argumentum ad Absurdum 193
- 2.1.5. Summary Conclusions 201
- 2.2. Correspondence of Method: How? 204
- 2.2.1. Delivery on Physical Media 204
- 2.2.2. Delivery by Download 209
- 2.2.3. Delivery via Information Stream 217
- 2.2.4. Preliminary Conclusions 220
- 2.3. Correspondence of Time and Space: Where? When? 221
- 2.3.1. Place of Performance 221
- 2.3.2. Time of Performance 224
- §3. Remedies for Non-Delivery 228
- 3.1. General Considerations 228
- 3.2. Performance in Kind 230
- 3.3. Resolution (Termination) of the Contract 232

- 3.4. Choosing the Remedy 233
- §4. Summary Conclusions 237

# **CHAPTER II. OBLIGATION OF CONFORMITY 239**

- §1. Generalities 239
- §2. The Concept of Digital Compliance 240
- §3. Conformity of Digital Content and Services 246
- 3.1. Subjective Conformity 246
- 3.2. Objective Conformity 254
- §4. Conformity of Operation: Warranty of Proper Functioning 263
- §5. Modification of the Digital Contract 264
- §6. Proof of Non-Conformity 266
- §7. Derivatives of Digital Compliance 268
- 7.1. Obligation to Update 268
- 7.2. Obligation of Security 269
- 7.2.1. DMA Regulation 272
- 7.2.2. DSA Regulation 275
- 7.2.3. AI Act Regulation 277
- 7.2.4. RRC Regulation 279
- §8. Remedies for Non-Conformity 280
- 8.1. Generalities 280
- 8.2. General Conditions 289
- 8.3. Hierarchy of Remedies 298
- 8.3.1. Performance in Kind 299
- 8.3.2. Subsidiary Remedies. Reduction of Performance and Resolution 302
- 8.4. Obligation to Compensate. Contractual Liability 314
- §9. Summary Conclusions 315

# **BIBLIOGRAPHY 337**

# **INDEX 354**

# LIST OF STANDARD ABBREVIATIONS 356

# **LIST OF SPECIFIC ABBREVIATIONS 357**