‘I WANT TO BE A REAL BOY!’[1]•: A.I. BETWEEN *SUBJECT* AND *OBJECT* IN SMART CONTRACTS

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“There are countless ingredients that make up the human body and mind, like all the components that make up me as an individual with my own personality. Sure, I have a face and voice to distinguish myself from others, but my thoughts and memories are unique only to me, and I carry a sense of my own destiny. Each of those things are just a small part of it. I collect information to use in my own way. All of that blends to create a mixture that forms me, and gives rise to my conscience. (…) It could also be argued that DNA is nothing more than a program designed to preserve itself. Life has become more complex in the overwhelming sea of information. And life, when organized into species, relies upon genes to be its memory system. So man is an individual only because of his intangible memory. And memory cannot be defined, but it defines mankind. The advent of computers and the subsequent accumulation of incalculable data has given rise to a new system of memory and thought parallel to your own. Humanity has underestimated the consequences of computerization.

(…)

– What is it? Artificial Intelligence?

– Incorrect. I am not an Al. My codename is Project 2501. I’m a living, thinking entity who was created in the sea of information.”[3]

„I’m human. I’m flawed. But I embrace change and enhancement. Now there’s nothing I can’t do. Nothing I can’t know. Nothing I can’t be.

(…)

We cling to memories as if they define us, but they really don’t. What we do is what defines us.”[4]

Introduction

In his praised[5] novella about *The Lifecycle of Software Objects*, Ted Chiang[6] ex-

[1] • *Pinocchio*, Disney (1940)

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[3] *Ghost in the Shell*, Manga Entertainment (1995)

[4] *Ghost in the Shell*, Dreamworks (2017)

[5] The novella received critical praise, winning the 2011 Locus Award for Best Novella and the 2011 Hugo Award for Best Novella.

[6] Ted Chiang was nominated by *Time* as one of the 100 personalities in the A.I. sector in 2023. See https://time.com/collection/time100-ai/6308990/ted-chiang/. For a non-fiction piece, see Ted Chiang’s famous essay in *The New Yorker* of 4 March 2023, *Will A.I. Become the New McKinsey?*, available at https://www.newyorker.com/science/annals-of-artificial-intelligence/will-ai-become-the-new-mckinsey.

plores the ethical problems raised by the creation of 'digients', i.e. software avatars having a A.I. core based on basic speech routines. Initially developed as 'software pets' (a sort of Yamaguchi toy in digital environment), these 'digients' develop their own personality and their programmers and trainers start to question whether they reached consciousness. They begin to be treated as friends rather than pets. In an oxymoronic way, the title of the novella refers to 'objects' while the main characters seem to treat the 'digients' as true subjects. A secondary plot shows the difficulties posed by the quest of the human 'supervisors' to make the legal system treat the 'digients' as (legal) persons. The solution is to incorporate a company and give the 'digient' some agency in managing it…

This paper tries to look at the current state of A.I. within European Union from legal point of view. From the myriad legal issues raised by the technological leap revealed once OpenAI was released in December 2022, the paper shall focus on the legal capacity of A.I. systems and their role in the development of smart contracts practice.

1. Parties vs Originators

The traditional legal wisdom conceives a contract as an agreement between two or more parties. As a species of 'juridical act', the contract requires an expression of wills from its parties. For example, under article 1166 of the Romanian Civil Code ('RCC'), the contract is defined as "an agreement of wills *between two or more persons* with the intention of constituting, amending or terminating a legal relationship" (emphasis added). As one can notice, the wills involved in making a contract should emanate from persons. And this follows from the fact that only persons could be considered subjects under the (civil) law. In the words of article 25 para (1) NCC, "Subjects of civil law are natural persons and legal persons".

At European level, this idea is still very present and it was tested in the new millennium when animal protection associations required a new legal regime for 'sentient beings'. Traditionally, animals are 'goods' (i.e., objects) under most legal systems. Elevating them to 'persons' (i.e., subjects) would require a drastic rethinking of the Western legal systems. As a matter of fact, the exclusion of the animals from the realm of subjects could be traced back in the old Church's tradition that animals have no soul. This tradition is currently under scrutiny, at lest at the level of the Western Catholic Church, where Pope Francis accepted that we should look more closely to our fellow creatures. In his October 4, 2023 apostolic exhortation *Laudate Deum*, the Pope stated that "The Judaeo-Christian vision of the cosmos defends the unique and central value of the human being amid the marvellous concert of all God's creatures, but today we see ourselves forced to realize that it is only possible to sustain a "situated anthropocentrism". To recognize, in other words, that human life is incomprehensible and unsustainable without other creatures"[1]. This is not qui-

[1] *Laudade Deum*, §67, available at https://www.vatican.va/content/francesco/en/apost_exhortations/

te a recognition of animals having souls, but it is indeed a cautionary statement for 'human supremacy'.

The law is still far from this move forward. For example, the Civil Code of the Republic of Moldova ('CCRM') states in article 458 para (1) first sentence that "Animals are not things". However, this is rather a 'political' choice than a legal change since the second paragraph adds that "In what the animals are concerned, the laws regarding things shall apply correspondingly, except when the law states to the contrary". This leaves the legal reals exclusively in the hands of the people. Law is intrinsically an anthropocentric system created "by the people, for the people"[1].

Apparently, there is a reformatory current in European law on this subject since the Draft Common Frame of Reference ('DCFR') avoids to directly imply the persons in its definition of the contract contained in section II-I:101 para (1) first sentence which reads "A contract is an agreement which is intended to give rise to a binding legal relationship or to have some other legal effect". Nonetheless, the illusion rapidly dissipates when section II-I:102(1) adds that "*Parties* are free to make a contract or other juridical act and to determine its contents, subject to any applicable mandatory rules" (emphasis added). While DCFR avoids to enter into the sensitive issue of legal capacity[2] (and, as such, does not define what 'party' means), it is clear that it refers to the fact that only persons[3] can have a legally effective will.

However, since legal subjects include not only people (i.e., article 25 para (2) RCC says that "A natural person is the individual viewed as a holder of civil rights and obligations"), but also legal entities, the question begs to be asked: could we include animals and/or 'software object' in this open-ended category[4]? The answer is a little complicated since the definition of the legal entity is not so broadly conceived as it looks. As a matter of fact, article 25 para (3) RCC says that "A legal person is any form of organization which, *meeting the conditions required by law*, it is a holder of civil rights and obligations" (emphasis added). Well, these conditions are stated under article 187 RCC: "Any legal person must have an independent organization and its own patrimony, assigned to the achievement of a certain lawful and *moral purpose*, in accordance with the general interest" (emphasis added). As one can see, apart from the classical thinking that the 'organization' requires people to build it[5], such organization should have moral grounds. Is an artificial

documents/20231004-laudate-deum.html.

[1] Abraham Lincoln, *Gettysburg Address*

[2] See section I-I:101(2) DCFR: "They are not intended to be used (…) in relation to:

(a) the status or *legal capacity* of natural persons;

(…)

(g) the creation, *capacity*, internal organisation, regulation or dissolution of companies and other bodies corporate or unincorporated" (emphasis added).

[3] Indeed, §32 of the Introduction to DCFR explains that "The individual stands at the focus of the legal system".

[4] For such an interrogation vis-à-vis A.I., see V. Dobozi, T. Colțan, *Drepturi civile pentru roboții umanoizi?*, available at https://www.juridice.ro/575717/drepturi-civile-pentru-robotii-umanoizi.html.

[5] See Gh. Beleiu, *Drept civil. Persoanele*. T.U.B., Bucharest, 1982, p. 338-340 and p. 398-400

being capable of morality? This very question split the researchers when was asked of animals[1].

Even before computers were truly invented, Isaac Asimov saw the need to create a minimal 'robotic ethics' by launching his now famous 'Three Laws of Robotics'[2]. These rules state that:

"*The First Law*: A robot may not injure a human being or, through inaction, allow a human being to come to harm.

The Second Law: A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.

The Third Law: A robot must protect its own existence as long as such protection does not conflict with the First or Second Law."

However, these basic rules raise several questions[3], the hardest of which is the conundrum that they are 'built-in' limitations of every robot and cannot be circumvented. As such, they implicitly deny the free will of the robot and make any concept of normativity useless. Nonetheless, they inspired governmental agencies to adopt 'serious' rules starting from these basic principles[4]. The European Union also began to show an interest in the theme, but it preferred a more cautious approach. By closing in the political debates on the EU AI Act[5], the Europeans chose to consider the A.I. as a mere object. In this respect, article 3 para (1) of the 2021 draft states that an "'artificial intelligence system' (AI system) means software that is developed with one or more of the techniques and approaches listed in Annex I 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". While this definition could seem unclear[6] as to the legal status of A.I., the definition of 'provider' in paragraph (2) – "a natural or legal person, public authority, agency or other body that *develops* an AI system or that has an AI system developed with a view to *placing it on the market* or putting it into service under its own name or

[1] See F. de Waal, *The Bonobo and the Atheist: In Search of Humanism Among the Primates*, W.W. Norton, New York, 2014.

[2] The rules were introduced in his 1942 short story *Runaround* (included in the 1950 collection *I, Robot*).

[3] For some of these questions, see R. Rizoiu, *Despre roboți, numai de bine*, in R. Bercea (ed.), *De-a dreptul și literatura*, Ed. Universității de Vest, Timișoara, 2019, p. 183-198.

[4] See, for example, the South Korea's Robot Ethics Charter of 2008 (R.J. Sawyer, *Robot Ethics*, in "Science" 16 November 2007, vol. 318, no. 5853, p. 1037). Also, the United Kingdom approved in 2016 a standard dedicated to *Robots and robotic devices. Guide to the ethical design and application of robots and robotic systems*, which is now under review (P.-A. Rizk, *Le statut juridique des robots selon les Etats*, 21 novembre 2017, available at https://pierre-antoine-rizk.com/2017/11/21/le-statut-juridique-des-robots-selon-les-etats/).

[5] See the details available at https://www.europarl.europa.eu/news/en/press-room/20231206IPR15699/artificial-intelligence-act-deal-on-comprehensive-rules-for-trustworthy-ai.

[6] It sems that the draft shall undergo some changes, by incorporating the OECD definition instead of the current one, but the new text ("a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments") is still ambiguous. Moreover, it seems to suggest that the A.I. act like a subject, since it could make decisions…

trademark, whether for payment or free of charge" (emphasis added) – and 'user' in paragraph (4) – "any natural or legal person, public authority, agency or other body *using* an AI system *under its authority*, except where the AI system is used in the course of a personal non-professional activity" (emphasis added) – are unambiguous. The A.I. is just an 'asset' that could be transacted on a market while being subjected to the control of certain 'persons'[1].

At this point[2] (at least within the European Union[3]) it is increasingly difficult to conceive that an A.I. generated contract shall be binding on that A.I. system. Rather, the contract shall impose obligations on the provider (or user) of the said A.I. system. However, this does not preclude an A.I. to generate a contract on its own. This would be increasingly true in the area of smart contracts which are nothing more than software coding[4]. As such, the A.I. would be, in fat, the originator of the (smart) contract, but from legal perspective such contract shall be binding on (and create obligations and liabilities against) the person 'supervising' such A.I.

[1] It is therefore not exact to speak of the 'obligation' of an A.I. system to disclose to any counterparty that it is not a human interaction (M. Duțu, *O nouă etapă în construirea Dreptului inteligenței artificiale (DIA)*, available at https://www.juridice.ro/essentials/7391/o-noua-etapa-in-construirea-dreptului-inteligentei-artificiale-dia). However, the provider and the users of these systems have a disclosure obligation towards the persons that interact with the said A.I. system [art. 52 A.I. Act].

[2] Back in 2017, an official document of the European Union (i.e., the European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)) available at https://www.europarl.europa.eu/doceo/document/TA-8-2017-0051_EN.html) suggested „creating a specific legal status for robots in the long run, so that at least the most sophisticated autonomous robots could be established as having the status of electronic persons responsible for making good any damage they may cause, and possibly applying electronic personality to cases where robots make autonomous decisions or otherwise interact with third parties independently" (§59). The proposal raised a fierce opposition from the legal professionals structured around an open letter (available at https://www.politico.eu/wp-content/uploads/2018/04/RoboticsOpenLetter.pdf) stating that „From an ethical and legal perspective, creating a legal personality for a robot is inappropriate whatever the legal status model" (p. 1, §2). Also, as a reaction, a study requested by the JURI committee in 2020 (available at https://www.europarl.europa.eu/RegData/etudes/STUD/2020/621926/IPOL_STU(2020)621926_EN.pdf) mentioned that „There are no technical, philosophical, or legal considerations that justify considering machines as moral or legal agents due to their intrinsic characteristics – autonomy, the ability to learn and modify itself over time, the ability to pursue a given end independent of human supervision or control" (§2.1). For a detailed analysis, see A. Negri, *Robot as Legal Person: Electronic Personhood*, in „Robotics and Artificial Intelligence. Front. Robot. AI SMC" vol. 8/2021.

[3] However, there seem to be a shared concern throughout the Western World on the need to keep the A.I. under close human supervision. See the US President's Executive Order of October 30, 2023 on *Safe, Secure, and Trustworthy Artificial Intelligence*, available at https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence/; the *UK AI Policy White Paper* presented to Parliament by the Secretary of State for Science, Innovation and Technology by Command of His Majesty on 29 March 2023, available at https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper; the UN Secretary-General's Statement at the UK AI Safety Summit on 2 November 2023, available at https://www.un.org/sg/en/content/sg/statement/2023-11-02/secretary-generals-statement-the-uk-ai-safety-summit#:~:text=That%20it%20will%20undermine%20security,can%20have%20confidence%20in%20AI.; and *The Bletchley Declaration* by Countries Attending the AI Safety Summit, 1-2 November 2023, available at https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023.

[4] See N. Szabo, *The Idea of Smart Contracts*, available at https://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/idea.html.

2. Being human: Thinking fast AND slow[1]

On March 18, 2018, Elaine Herzberg became the first victim of a traffic deathly accident 'committed' by an autonomous vehicle[2]. That evening, an Uber self-driving car crashed into Herzberg who was engaged in an illegal crossing of the road with a bicycle. The Uber car was on self-driving mode, but a human 'assistant' driver was behind the wheel monitoring the sensors. It looks like the automated braking system was disabled earlier that day. Despite the horrifying images recorded by the impressive set of cameras inside and outside the vehicle, the fatal crash raised some interesting legal questions. Like the events 121 years ago in the United Kingdom when Bridget Driscoll was the first victim of an automobile crash, the rules on liability were put under scrutiny. This time, Uber (the provider of the software) settled the liability issue outside the court, while the 'supervising' driver pleaded guilty for endangerment after being initially charged for negligent homicide[3].

It is not the place to debate around these liability-related rules here. However, one question begs to be asked: what if the driver was (exclusively) a human with no hi-tech camera devices and software to assist them? Given the shady circumstances of the time, place and victim's behavior, it might be very possible to find that the driver found themselves in a *force majeure*-like situation which will defend them from any liability. Most of the debate was focused on the fact that the state-of-the-art technology indeed identified in due time the danger, but failed to react properly[4]. It looks like the general perception is that the machine should be (always) perfect and not fail[5], while the humans are allowed to fail (at least sometimes). One can see here the human fear of the emergence of a 'singularity' event, where A.I. shall outsmart humans and replace them as the next evolutionary step. Like in the famous novel by Philip K. Dick, *Do Androids Dream of Electric Sheep?* (1968). In there, the androids were banned from coming to Earth and also, they were expressly designed with a very limited lifespan in order to avoid them competing with humans[6]. The assumption here is that the machines are better than humans and our Luddite resentment fears that they are designed to replace us as apex predators on Earth.

Maybe the reality is more properly imagined by movies like Spielberg's *A.I. Artificial Intelligence* (2001) or Ewan McGregor's *Robots* (2005) where there are plenty of robots' graveyards. Or by the infamous General Grievous character from the

[1] D. Kahneman, *Thinking, Fast and Slow*, Farrar, Straus and Giroux, New York, 2013.

[2] See details at https://web.archive.org/web/20200421221918/https://www.nytimes.com/2018/03/19/technology/uber-driverless-fatality.html.

[3] See https://www.bbc.com/news/technology-54175359.

[4] In addition, the human 'driver' was not entirely focused on the driving at the time, basing themselves on the computer skills…

[5] However, as human artifacts, they are (inherently) imperfect. See M. Herbosch, *op. cit.*, p. 677.

[6] We can see similar approaches nowadays in consumer goods that are breaking soon after the guarantee period expires. This business tactic is tackled by the European Union in its March 2023 release of a Proposal for a Directive on common rules promoting the repair of goods (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023PC0155).

Star Wars franchise who was a robot showing signs of illness. Similarly, the cyborg's doctor Dyson Ido from the Robert Rodriguez's *Alita: Battle Angel* (2019) seems to have no problems in patching robots like a real doctor would do. The question therefore emerges: how could we discern humans from robots in the (not so distant) future? Would we employ the search for 'empathy' like in *Blade Runner* (1982)?

In fact, this brushes the dust from the age-old question – what is the essence of a human being? The Christian medieval short answer to this question was: 'the soul'. While the post-Aristotelian[1] Thomistic[2] approach in the West was to see the soul (*anima*) as an intrinsic part of the reason (the humans having a 'rational soul'[3]), in the Eastern Christianity[4] the Platonic tradition[5] maintained that the soul (*πνεῦμα*) is distinct from reason (*λόγος*)[6] even when it appears to us as being interlinked[7]. As such, not anyone who speaks is a (human) person. The existence of a bodily soul remained a puzzle until recent times[8], when a physician tried to weight the soul[9] and reached the strange conclusion that it weights 21 grams.

In the Augustinian tradition, mistake is the essential trait of the human being. Each of us is born carrying inside the mark of the Original Sin[10]. *Errare humanum est* becomes the basic definition of the human being. In the words of Terence, "*Homo sum, humani nihil a me alienum puto*"; or in the more recent disguise by Rag'n'Bone, "But I'm only human after all/…/Don't put your blame on me". Since the Protestant view marks the spark of capitalism[11], it seems that this Augustinian view on the human nature made its way into the legal concept of 'person' as well[12].

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[1] Aristotle, *De Anima*, II.2.

[2] St. Thomas Aquinas, *Summa Theologiae*, 1a, q. 75-77.

[3] See Ch. Van Dyke, *Not Properly a Person: The Rational Soul and 'Thomistic Substance Dualism'*, in "Faith and Philosophy" vol. 26, no. 2/2009, p. 186-204.

[4] The relation was analyzed in detail when debating the Trinitary problem distinguishing between the various aspects (*ὑπόστᾰσις*) of the divinity: Father (*νοῦς*), Son (*λόγος*) and Holy Ghost (*πνεῦμα*).

[5] Platon, *Phaidros*, 253c-254e

[6] St. Paul, *First Letter to the Thessalonians*, 5.23.

[7] This explanation was developed in the XIVth century by St. Gregory Palama, by reinterpreting the Augustinian parallel between the Holy Trinity (Father, Son, Holy Spirit) and the human psychology (mind, word, spirit) and showing that the analogy tricks us because we cannot think to the speech unless it comes from the spirit. However, this is not true for the Trinity, where the uncreated energies functions in a different manner. See Bishop Ignatie (Trif), *Sfântul Grigorie Palama şi teologia energiilor necreate,* Ed. Spandugino, Bucharest, 2022, p. 267-272. *Adde* J.D. Wilkins, *"The Image of This Highest Love": The Trinitarian Analogy in Gregory Palamas's Capita 150*, in St Vladimir's Theological Quarterly, vol. 47, no. 3-4/2003, p. 383-412.

[8] See M. O'Gieblyn, *God, human, animal, machine : technology, metaphor, and the search for meaning*, Doubleday, New York, 2021, ch. 4: „it's very possible that our new, digital selves will entirely lack subjective experience, the phenomenon we most often associate with words like "*spirit*" and "*soul*."".

[9] See D. MacDougall, *Hypothesis Concerning Soul Substance Together with Experimental Evidence of The Existence of Such Substance*, in "American Medicine" vol. 2 (1907), p. 240–243.

[10] See St. Augustine, *Against Julian*, The Catholic University of America Press, New York, 1981.

[11] See M. Weber, *The Protestant Ethic and the 'Spirit' of Capitalism*, Penguin, New York, 2002.

[12] In the East, the writings of John Chrysostom went on a different path – the man is born free of any sin and the baptism is meant only to show the right path which is to be then choose freely on the basis of each persons' free will. See St. John Chrysostom, *Homily X on Romans V*.

If the (human) soul is damned to err, then the software (which does not[1]) lack any soul. The recent Cruise accident[2] and fallout scandal[3] showed that the State authorities consider that an A.I. should be 100% accident-free because it is not allowed to err. The major drawback in this rationale is that the State allowed other entities (i.e. corporations) to become legal persons more than a century ago. And a corporation is hard to be considered as having a soul[4]. It is true that the fiction built around the legal personality considers that a corporate is always ultimately represented by humans. Whether human soul survives the intricacies of large corporations is a question still to be answered…

For the time being, the EU AI Act impose a supervision power for the persons responsible for an A.I. system [art. 14] and puts a series of obligations onto these persons [art. 24-29]. This need of human oversight existed for corporations as well and some traits thereof remains in the regulation. For example, article 153[13] para (2) of the Romanian Companies Law provides that even when a member of the Board of Directors of a company is a(nother) company, the latter should specify a certain individual that will participate in the board meetings. Maybe, in the future, a similar requirement shall be asked for an A.I.

Why an A.I. should have 'soul' or at least a 'rational soul'? Because the laws are made for humans[5] and can poorly accommodate non-human entities into their grasp[6]. For example, how could an A.I. emulate 'reasonability' in contracting required under the standard of good faith by article 1480 RCC [section III-1:103 DCFR]? Since

[1] Of course, there are errors, but they are *human* programming errors. The software runs strictly by following a set of logical steps.

[2] See https://www.reuters.com/business/autos-transportation/gms-cruise-recall-950-driverless-cars-after-accident-involving-pedestrian-2023-11-08/.

[3] See https://www.theguardian.com/business/2023/dec/04/california-cruise-robotaxi-san-francisco-accident-severity.

[4] See G. Elfstrom, *Moral Issues and Multinational Corporations*, Palgrave Macmillan, New York, 1991; G. Sapelli, *Morality and Corporate Governance: Firm Integrity and Spheres of Justice*, Springer, Milan, 2013; E. Avon, *Organizational Change, Human Condition and the Moral Contract*, in A.M. Dávila Gómez, D. Crowther (eds.), *Ethics, Psyche and Social Responsibility*, Ashgate, Aldershot, 2007; A.J.G. Sison, *Corporate Governance and Ethics. An Aristotelian Perspective*, Edward Elgar, Cheltenham, 2008.

[5] See J.-É. Portalis, *Le « discours » introductif sur l'avant-projet du Code civil*, translated in Romanian in "Revista Română de Drept Privat" no. 3-4/2021, p. 860-893: "Les lois ne sont pas de purs actes de puissance ; ce sont des actes de sagesse, de justice et de raison. Le législateur exerce moins une autorité qu'un sacerdoce. Il ne doit point perdre de vue que les lois sont faites pour les hommes, et non les hommes pour les lois ; qu'elles doivent être adaptées au caractère, aux habitudes, à la situation du peuple pour lequel elles sont faites ; qu'il faut être sobre de nouveautés en matière de législation, parce que s'il est possible, dans une institution nouvelle, de calculer les avantages que la théorie nous offre, il ne l'est pas de connaître tous les inconvénients que la pratique seule peut découvrir ; qu'il faut laisser le bien, si on est en doute du mieux ; qu'en corrigeant un abus, il faut encore voir les dangers de la correction même, qu'il serait absurde de se livrer à des idées absolues de perfection, dans des choses qui ne sont susceptibles que d'une bonté relative ; qu'au lieu de changer les lois, il est presque toujours plus utile de présenter aux citoyens de nouveaux motifs de les aimer ; que l'histoire nous offre à peine la promulgation de deux ou droit bonnes lois dans l'espace de plusieurs siècles ; qu'enfin, il n'appartient de proposer des changements, qu'à ceux qui sont assez heureusement nés pour pénétrer, d'un coup de génie, et par une sorte d'illumination soudaine, toute la constitution d'un État."

[6] See D. Kansra, *Law and The Rights of the Non-Humans*, in IILS Law Review, vol. 8, no. 2/2022, p. 58-71.

reasonability refers to what a reasonable *human*[1] would do in the case concerned (including by making a mistake), it would be difficult to implement this by software. The same difficulty is posed by the automatic inclusion of the 'fair terms' which are implied in every contract under article 1272 RCC [section II-9:101(2) DCFR], since these terms are implied because the judge considers that any *human* being would have considered them self-evident. Also, in case of contractual (mis)performance, the 'mitigation' duty provided under articles 1534(2) and 1531(2)II RCC [section III-3:705 DCFR] is hard to be programmed to an A.I. because it requires the party to consider the situation of the other party from a *humane* perspective.

However, since the law was not (initially) conceived for the corporations either, it might be room to negotiate some buffer provisions allowing the A.I. to become subject and having its liability shifted to some controlling entity in cases when it acted unreasonably.

3. Contract as Dialogue (Communication)

In the Academy Award winning movie, *The Imitation Game* (2014), Benedict Cumberbatch plays the role of Alan Turing, a mathematical genius that was not well integrated into his days' society due to his different (sexual) nature. The title of the movie borrows from a subtitle of a famous essay by Turing – *Computing Machinery and Intelligence* (1950)[2]. In that paper, the author described what was to become known as the 'Turing test' meant to decide whether or not an artifact is human or not. The main 'algorithm' consists in a human asking (written) questions behind a screen and then decide whether or not the answers received are coming from a fellow human or from a machine. Should the subject cannot distinguish between the two, it means that the machine passes the test as being 'human-like'. So, differently from Dick's high-tech (but religious-inspired) approach in the *Blade Runner*, Turing does not look for emotions but rather to the general feeling that you are conversing to a fellow.

The man is a social animal (*ζῷον πολιτικόν*) and as such he needs to have social relations with his peers. This is done through language as the preferred means of communications. Some of these social relations[3] are meant to build a mesh of links within the group that are prone to consolidate the action thereof and be able to direct it towards common goals. These relations are, therefore, formalized and became in time the object of legal thought. Legal relationships are formalized structures em-

[1] It sems that 'AI systems do not "reason" like a human'. See M. Herbosch, *Contracting with Artificial Intelligence. A Comparative Analysis of the Intent to Contract*, in RabelZ vol. 87 (2023), p. 676.

[2] See A.M. Turing, *Computing Machinery and Intelligence*, in "Mind" vol. 49(1950), p. 433-460.

[3] Therefore, conceiving A.I. as a subject would require recognizing it as a relevant party to such relations. See M. O'Gieblyn, *op. cit.*, ch. 5: „Perhaps it's true that we see objects as persons when we are made to socially engage with them, that the appearance of intelligence depends largely on our willingness to treat an object as though it were like us. (…) Consciousness was not some substance in the brain but rather emerged from the complex relationships between the subject and the world. It was part alchemy, part illusion, a collaborative effort that obliterated our standard delineations between self and other".

bedded over (some of) the social relations within the group. Namely it is that set of relations that are meant to trigger human cooperation[1].

The initial legal structure conceived for this purpose was the bargain – i.e., the contract. Later on, some very close contracts (i.e., the relational contracts[2]) merged to form the firm[3]. The link between contract and legal entity is still very recent and it continues to raise a lot of questions the answers[4] to which could result in a Nobel prize for… economy today[5]. The contract, as the main source of legal relations, is in the center of this analysis.

The German philosopher Jürgen Habermas developed a theory[6] stating that the law enacting process could be viewed[7] as a 'communication act'[8]. Since the contract has a similar nature to the law (in what its binding effects[9] are concerned[10]), on could extend Habermas' theory into the realm of contract as well. Indeed, the contract is the result of (some sort of) a 'communicative action': it emerges after a precontractual phase of negotiations[11] is 'concluded' and it reflects reaching an 'agreement of the wills'[12] (at least) on the essential points[13]. And the negotiation is easily conceived as a dialogue between the offeror and the accepter[14], even when it is not apparent that such a dialogue existed[15].

In addition, the contract is viewed as an exchange of *wills* [1166 NCC] between the parties. The entities entering into this dialogue should be capable of having (their own) will. Is the A.I. capable of its own will? Does it have free will to begin with? One should remember that the entire contractual theory is build on the basis of the assumption of free will[16]. In this respect, the communicative action theory

[1] Of course, this is one way to look at it. The majority opinion (at least in continental Europe) is that the State decides which social relations are relevant enough to be formalized as legal relations…

[2] See I.R. Macneil, *Whither Contracts?*, in "Journal of Legal Education" vol. 21 (1969), p. 403; I.R. Macneil, *Contracting Worlds and Essential Contract Theory*, in "Social & Legal Studies" vol. 9 (2000), p. 431.

[3] See R.H Coase, *The Nature of the Firm*, in "Economica" vol. 4, no. 16/1937, p. 386-405.

[4] See Oliver Hart, *Firms, Contracts, and Financial Structure*, Clarendon Press, Oxford, 1995.

[5] See https://www.nobelprize.org/uploads/2018/06/popular-economicsciences2016.pdf.

[6] See J. Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, MIT Press, Cambridge, 1996.

[7] See A. Marga, *Filosofia lui Habermas*, Ed. RAO, Bucharest, 2017, p. 502-527.

[8] In fact, Habermas is applying his original theory of the communicative act (developed in J. Habermas, *Theory of Communicative Action, Volume One: Reason and the Rationalization of Society*, Beacon Press, Boston, 1984; J. Habermas, *Theory of Communicative Action, Volume Two: Lifeworld and System: A Critique of Functionalist Reason*, Beacon Press, Boston, 1987) into the realm of legal philosophy.

[9] See section II-1:103 DCFR.

[10] Article 1270 para (1) RCC states that the a "validly concluded contract has the *power of law* between its parties" (emphasis added). This metaphor is more suggestive than the blunt reference to 'binding effect' in DCFR.

[11] Article 1182 *sqq.* RCC. Cp. Section II-4.201 *sqq.* DCFR.

[12] Article 1166 RCC. Cp. Section II-1:101(1) DCFR.

[13] Article 1182(2) RCC. Cp. Section II-4.103 DCFR.

[14] Even in case of adhesion contracts, this dialogue exists since the accepter evaluates the offer and then agrees with its terms willingly. See art. 1175 RCC and article 1182(1)II RCC. Cp. Section II-1:110 DCFR.

[15] See Section II-4:211 DCFR.

[16] Article 1169 RCC. Cp. Section II-1:102 DCFR.

could bring some light. Since the contract requires a dialogue between the parties, this means that each of them shall inquire into the other's will. If the human party is able to communicate with a machine party without making a difference from a human counterpart, then the contractual exchange stays. Of course, this means that the machine is passing the Turing test in the meantime…

One question is to be asked though: is this kind of practice in accordance with the good faith standard imposed in the negotiations phase[1]? Since the good faith refers to keeping the promises and acting in a predictable manner, an A.I. could be event better suited to comply with it than a human. However, is there a room for mistake (*error in personam*) to the extent the identity of the counterparty is relevant[2]. It could be argued that the simple fact that the counterparty is not human is sufficient ground to avoid the contract for mistake[3]? It is difficult to put this argument. For example, in case of agency, the undisclosed agency is not in itself ground for avoiding the contract concluded with the agent[4]. Therefore, there should be more than the simple identity of the counterparty to justify avoidance for mistake[5]. At the end of the day, the human party was confident they are dialoguing with another human…

A more complicated question is whether two artificial intelligences engage in a dialogue which result in a contract being concluded. Then, the dialogue could not even be human in nature at all. It's like the gibberish sounds of initial models of dial-in routers. And yet, the dialogue is there because the two computers make 'requests' and receive 'access' by exchanging 'packets' of data. Could this be emulated in an offer/acceptance play? Remember that a smart contract should not necessarily look like a 'legal' contract at all[6]. As such, it is very possible nowadays to see a 'smart contract' (which is not quite a contract, but a software program) created by two (other) software programs (i.e., the A.I.s). Would we consider this a binding agreement between parties?

The answer to this question comes back again to the issue of whether the will is associated with the soul or to the reason (i.e., intelligence). We might be inclined to choose the former since, for example, a human being who is not in his (rational) senses is still credited with (legally binding) will. It is the case for the persons having mental disabilities. For example, the first principle laid down in article 2.1 of the United Nations Convention on the Rights of Persons with Disabilities ('CRPD') states that there should be shown "[r]espect for inherent dignity, individual autonomy

[1] Article 1183(2) RCC. Cp. Section I-1:103 DCFR.

[2] Article 1207(2)3 RCC. Cp. Section II-7:201 DCFR.

[3] See M. Herbosch, *op. cit.*, p. 701-704 for other examples of mistake.s

[4] Article 1297 RCC. Cp. Section II-6:106 DCFR.

[5] Of course, *de lege lata*, it is also a problem of legal capacity (since A.I. is denied of it) but there is an increasing current of viewing the A.I. acting as an agent. See J. Macgregor Wise, *Intelligent Agency*, in "Cultural Studies", vol. 12, no. 3/1998, p. 410-428; S.R. Cross, Agency, *Contract and Intelligent Software Agents*, in "International Review of Law, Computers & Technology", vol. 17, no. 2/2003, p. 175-189.

[6] As a matter of fact, the entire concept of 'smart contract' emerged from the belief that 'legalease' contracts are too complicated and that lawyers impose to much unnecessary transaction costs.

including *the freedom to make one's own choices*, and independence of persons" (emphasis added). Based on this principle, the Romanian Constitutional Court decided in august 2020 that the State should "take into consideration *the will* and the preferences of the persons with disabilities"[1] (emphasis added). This means that the will is not necessarily linked with reason. These principles were incorporated in the Romanian Civil Code by Law no. 140/2022, the reference to the will of the person with mental disabilities being expressly mentioned in article 104 para (3) hereof.

In Roman Polanski's adaptation of the Tony Award-winning 2006 play *Le Dieu du carnage*, *Carnage* (2011), the shortcomings of the dialogue are apparent when two normal couples end up in literally fighting each other over a banal incident. The movie shows that the dialogue is not always a 'meeting of the minds' like in Plato's Dialogues. Is could often degenerate into outright war over points in *dis*agreement. OECD definition for A.I. Systems refers to the machine making decisions. While the explanatory notes[2] try to minimize the impact of this statement by suggesting that "[w]ith these [predictive analytics and decision support] algorithms, humans still make the final decisions about what to do with the AI system's predictions" (note 6) it admits that there can be "[a]utonomous systems (…) that are able to accomplish a task, reach a goal, interact with their surroundings, and achieve an objective with varying degrees of human involvement" (note 7). This autonomy in making decisions raises the problem of A.I. contracting itself. For example, if a broker instructs a stock exchange bot to deal with a portfolio in such a way that shall maximize the returns and then gives the bot access to the trading platform (with broker's credentials), then the A.I. shall contract on its own while theoretically under the 'supervision' of a person. And if we add that the broker is not an individual but (as it happens in practice all the time) a corporate entity, then the 'supervision by a human' becomes more remote then intended. And all this because we accepted a century ago to delegate the decisions to transhuman entities[3] such as corporations…

So, it sems that there is no real barrier stopping the A.I. making decisions on its own and putting those decision into practice (in a 'real' environment) where it can interact with humans or other A.I.s to 'agree' on concluding (smart) contracts.

4. The big dilemma: exchange of consent in the virtual world

In the *Dis-moi oui* episode of *The Crown* TV series (2023), Dodi al-Fayed mistakenly construe that the ring Princess Diana noticed in a jewelry shop where they ended-up running away from the fans mob meant that she was ready to accept his proposal to marry her. This is a vivid illustration on how humans see any event in their life as having a special meaning in accord with their desires. A.I. has no desire

[1] Romanian Constitutional Court, decision no. 601/2020, §46. Also, in §34, the Court stated that any protective measure should "take into account the will of the person".

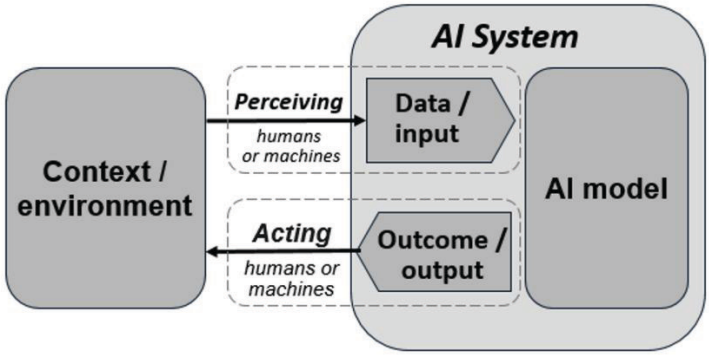
[2] See https://mneguidelines.oecd.org/RBC-and-artificial-intelligence.pdf.

[3] See R. Rizoiu, *Omul – ultima frontieră? Despre (trans)umanism și personalitate*, available at https://www.juridice.ro/essentials/5333/omul-ultima-frontiera-despre-transumanism-si-personalitate.

(at least from what we know so far). Is the decision made by an A.I. system sufficient to represent a (legally binding) will?

Whether we like it or not, A.I. is here to stay (and evolve) and its role in developing the smart contracts domain shall increase exponentially in the near future. Let's not forget that the best results that one can obtain nowadays by employing A.I. systems are to ask them generate computer code. And smart contracts are nothing more than a computer code. Therefore, the development of A.I. shall first and foremost influence the expansion of smart contracts. However, certain legal intricacies will continue to haunt this expansion since the smart contracts are also (legal) contracts. As such, in case of 'malfunction' they will reach some sort of (legal) arbitration where lawyers rather than software engineers shall be involved.

Of course, the main issue will be whether an A.I. cand be a party into a (smart) contract. For the time being (at least in Europe) this seems far from being accepted. Therefore, A.I. shall be considered a simple tool employed by a provider/user of the relevant A.I. system. This will move the search for the will outside the A.I. itself into the personality of such provider/user. Depending on the degree of autonomy of the A.I. system, it is possible that the provider/user gives very general or minimum input. As a matter of fact, the OECD definition[1] schematics[2] (see below) imply that both inputs and outputs could involve only machines and no human intervention at all.



In the extreme situation where human (or, for that matter, corporate) intervention does not exist in anyway, then the lack of consent will disqualify any AI 'decision' from the legal realm. Whether lack of consent shall be viewed as not even creating a (legal) contract or only as a cause rendering such contract null and void is to be debated in accordance with the prevailing legal doctrine[3]. In those cases when the human either issued a general instruction (such as "trade this stock portfolio to maximize return over 60 days") or only confirms at the end in general terms all the actions

[1] For the November 2023 updated definition, see https://oecd.ai/en/wonk/ai-system-definition-update.

[2] The schematic is copied from the OECD Principles on A.I. (https://oecd.ai/en/ai-principles).

[3] For a brief presentation of options under Romanian law, see R. Rizoiu, *Curs de teoria actului juridic civil*, Ed. Hamangiu, Bucharest, 2021, p. 140-141 and p. 231-236.

undertaken by A.I. (like "by clicking this box I accept all transactions run in the past 60 days"[1]), the analysis of consent could prove more challenging.

For example, the (irrevocable) instruction could be viewed as a unilateral act[2] that creates legal obligations on the issuer[3]. As such, the provider/user that transferred the responsibility to act towards an A.I. system shall continue to be liable for the action of the latter. In a human world, however, if a principal gives only general instructions to the agent, the latter needs to limit their action to a simple administration of principal's assets[4]. This is possible since the agent that overstep the limits of their powers shall be personally liable against the principal (and the third party). In the case of the A.I. (despite the tendency to associate it with the position of agent), this shift of liability is not possible (due to the lack of legal capacity[5]) and therefore it is questionable whether the general instruction will be considered valid at all. On a contrary, in case of ratification *ex post* of the actions already undertaken by the A.I. system, any reason for avoidance thereof is cured[6]. It is irrelevant whether the ratifying party really analyzed all details of the A.I. actions as long as it was able to do it but choose not to.

Another key to understand this complicated relation between the provider/user and A.I. systems is to refer to the risks undertook by the one who chooses to employ an A.I.[7] For example, since the provider/user is aware that the algorithm is going to make the decision (to contract), then this could be equated with the conclusion of an aleatory contract[8]. For this qualification to hold, it needs that the other party (i.e., the counterparty) should be aware that the real intent of the initiator was to assume the risks derived from rogue transactions incurred by the A.I. system. However, it looks like a certain line of interpretation of the European Court of Justice ('ECJ') could be developed in a doctrine of assumed aleatory element for any algorithm-driven decision. For example, in the case C-243/01 *Gambelli*, ECJ stated that the gambling-related activities are not prohibited *per se* in the Single Market and, as such, they could be provided everywhere under the freedom of services rule. Moreover, while the ECJ earlier admitted in its decision in the case C-275/92 *Schindler* that gambling could be prohibited due to their "moral, religious or cultural aspects", these restrictions should be proportional. Namely, *Gambelli* stated that the state should not prohibit to the private companies some activities that it itself choose to pursue and develop.

In the recent decision issued by ECJ in the case C-634/21 *SCHUFA Holding AG*, the automated processing of data is associated with a decision that calculate

[1] For more details on this hypothesis, see the restrictions on automated pre-checked consent boxes imposed by the European Court of Justice in the case C-673/17 *Planet49 GmbH*.

[2] Article 1324 RCC. Cp. Section II-1:101(2) DCFR. Also, it could be seen as an offer to the extent it is specific enough. Article 1188 RCC vs articles 1189-1190 RCC.

[3] Article 1326 RCC. Cp. Section II-1:103(2) DCFR.

[4] Article 2016 RCC. Cp. Section IV.D-4:102 DCFR.

[5] See M. Herbosch, *op. cit.*, p. 696-699 for a more detailed analysis.

[6] Article 1312 RCC. Cp. Section IV.D-3:202 DCFR.

[7] This seems to be also the approach the European Union took in drafting the AI Act.

[8] Article 1173 para (2) RCC.

a probability. In other words, the algorithms used by A.I. systems are considered a type of 'gamble' which is prohibited under article 22 GDPR. This means that any automated process undertaken by an A.I. system could be viewed as a 'probability game'. As far as it does not involve personal data, it would be allowed under EU regulations. However, the *alea* element remains in there and it will transform the nature of the contracts concluded by A.I. as far as there is a true A.I. system making decisions on its own.

In this context, the rules laid down by Directive 2000/31 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (the 'eCommerce Directive')[1] need to be revised sooner rather than later. Indeed, the provisions of article 11 of the Commerce Directive merely replicate the standard mechanism of offer and acceptance that might not be sufficient in the near future with the advent of A.I. and expansion of smart contracts domain. Already the Romanian High Court decided[2] that in the simpler area of loan agreements concluded online the signature of the borrower is no longer required for the agreement to be a writ of execution.

Conclusion

Since (at least[3]) the European Union is not ready to accept the legal personality for A.I. systems in the foreseeable future, the question remains on how to treat the decision made by these systems in the legal environment. For the time being, the EU strongly committed not to allow the use of what it considers 'unacceptable risk' A.I. systems in the Single Market. Nonetheless (and here comes the interesting part), the recent compromise[4] reached in December 2023 with the Member States was that the AI Act (including these restrictions) shall not apply in the law enforcement and military areas.

The good news is that history showed us that many useful applications derived from military programs to mention just the Internet which debuted as a military network developed by the US defense agency DARPA in the '70 to become the current World Wide Web we cannot live without[5]. The bad news is only in our imagination since the *Terminator*'s SkyNet was initially developed as a military application before taking out the world literally.

[1] The Directive was transposed in Romania by Law no. 365/2002.

[2] ICCJ, decision (RIL) no. 23/2018.

[3] In the UK it seems that the Government considers the battle is already lost since the Courts and Tribunals Judiciary issued on 12 December 2023 an *Artificial Intelligence (AI) Guidance for Judicial Office Holders*…

[4] See https://www.consilium.europa.eu/en/press/press-releases/2023/12/09/artificial-intelligence-act-council-and-parliament-strike-a-deal-on-the-first-worldwide-rules-for-ai/.

[5] If one asks a GenZ about its basic needs there is a fair chance it will place (high speed) Internet access on the bottom of the Maslow's hierarchy of needs pyramid.