

Experiences and Queries about Artificial Intelligence and Law¹

Esperienze e quesiti su intelligenza artificiale e diritto

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Abstract

Artificial intelligence, together with access to Big Data, has produced profound changes in the information about law, whereas it proceeds at a slower pace in the field of law framing, especially as far as law-giving and judicial decision-making are concerned. Here the role played by the human being in legal processes is still crucial. Yet, the significant experiments with “smart” legal rules that are now on the close horizon raise concerns about what may become the shape of the law in our not-so-far future. Some questions are still open. How far can algorithms go into the intricacies of the countless logical, ethical, psychological and sociological variables that intervene in legal reasoning at all levels? How much space will remain for human intervention in the framing and enforcement of legal rules, whether “general” or “individual”? Will the overwhelming power of technology impose a kind of over-simplified law, made of mere signals rather than signs and symbols, which will minimize or annul them? In that case, what consequences will ensue in the distribution of power in our societies and in their democratic procedures?

Keywords: Artificial intelligence; Law; Information; Law framing; Hypotheses

Sommario

L'intelligenza artificiale, come pure l'accesso al Big Data, ha cambiato profondamente l'informazione sul diritto, ma procede con passo meno spedito nel campo della formazione del diritto, specialmente per quanto concerne la produzione di leggi e di sentenze giudiziali. Qui il ruolo degli esseri umani è ancora cruciale. Tuttavia, i significativi esperimenti sulla regolamentazione

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“smart”, attualmente all’orizzonte, sollevano preoccupazioni su quale può essere la configurazione del diritto in un futuro non lontano. Alcune questioni sono ben aperte. Fino a qual punto gli algoritmi possono spingersi negli intricati dettagli delle innumerevoli variabili logiche, etiche, psicologiche e sociologiche quando si tratta di dar corpo ed applicare norme giuridiche, sia generali che individuali? Il soverchiante potere della tecnologia imporrà forse una tipo di diritto super-semplificato, fatto di segnali anziché di simboli, destinato a minimizzarle o annullarle? In tal caso, quali conseguenze scaturiranno nella distribuzione del potere nelle nostre società e nelle procedure democratiche?

Parole chiave: Intelligenza artificiale; Diritto; Informazione; Formazione del diritto; Ipotesi

The purpose of this paper is to give a glance at the state of the experiences in the field of artificial intelligence and law, from a twofold perspective, i.e. the impact of AI upon our legal systems and the way these react, or may react, to such impact. It is quite a widely diffused opinion that also the legal field may either take high profit of the newest technologies or, rather, be overwhelmed by them. The current practices, and the correspondent scientific reflections, happen to evoke both utopias and dystopias, for technological innovations “may be good, bad, or neutral”, as a brilliant scholar from Singapore University said in an international conference at the Kuwait International School of Law just a few months ago.

I do not need to spend too much time, here, to describe the potentials and the effects of artificial intelligence, seen *per se* and in its attitude to explore unmeasurable universes of data – mention to Big Data – by correlating multitudes of variables in infinitesimal time fragments. We know this. AI can produce automatically elaborated documents by selecting and crossing pieces of information extracted from myriads of other already known documents. It can produce poems, tales, musical texts, scientific essays (many of them do circulate in internet, confusing academic debates) and plausible political documents. A couple of years ago two manifestos of tax policies went around in Italy, visibly inspired by the Chicago School and by Keynesianism respectively. They did not go into much detail – it was indeed an AI experiment – but they were correctly written and to a large extent persuasive at least at the eyes of a moderately cultivated man-on-the-street. Again, we all can make extensive use of the new technologies to get informed, gather and classify data, interpret and select them, speed up work procedures, enrich our knowledges and indeed our life, in a way that was unconceivable a few decades ago. We can also be – we all are, in fact – “profiled”, unconsciously channelled in our daily activities, get unarmed *vis-à-vis* the power abuses

of technocratic elites, deprived of already conquered fundamental rights, disturbed in our privacy, marginalized in the political arena, which depends increasingly on algorithmically pre-structured communications, largely uncontrollable from the bases of societal life.

The advent of Chatbox GPT, maybe the most refined means of symbolic production ever appeared in human history, has come to definitely modify our landscapes, up to suggesting that perhaps we have already gone too much forward. Chatbox GPT may diffuse both true and false images, whose reliability can hardly be ascertained. A prominent politician's appearance on the TV may be fake, as may be her/his denial. Entire chains of artificial "realities" may produce distortive and long-lasting effects on the social and political sphere, before their misleading nature is detected and revealed.

The legal world is by no means exempted from such events, even though it displays specific characters that cannot be ignored. One thing is to channel peaceful human action along the most usual footpaths, whereas something different is to hinder and limit it, going against the most diffused or desired social expectations, as is the case with law, which goes *contra factum* through its typical characters, especially the correlation between action and reaction, between hypothetical conducts and sanctions, negative or positive. Law is perhaps the most complex of all social communications since it forcefully intervenes in a conflictual social field, characterized by an unavoidable measure of scarcity of resources. Legal procedures distribute such resources according to parameters that give rise to both satisfaction and unsatisfaction simultaneously. In this field of competing interests, what is self-evident in unproblematic social communication suddenly becomes a matter of contrast in the legal arena. Multiple interpretations of even the apparently most unequivocal legal rules, and corresponding facts, would not exist if the old Latin saying *in claris non fit interpretatio* were actually true.

Having said this, our still open question is *how far can AI extend itself in the legal field and what is the borderline beyond which human intelligence will still be needed in order to orient individual and collective social action*.

On the basis of what both our experiences and the rich literature suggest to us, my feeling – already expressed on some occasions – is that, thus far, the technological revolution we are talking about has already produced highly relevant effects in the field of *information* about law or, if one prefers, the knowledge about law, and less relevant effects in that of law *formation*, i.e. the *framing* of legal texts of different range and content – individual and general rules, as Kelsen would say – and their subsequent social impact.

New communication technologies allow us to retrieve, understand in high detail, select and correlate billions of legally relevant data. For example, their adoption in medical diagnoses and therapies can not only "profile" potential subscribers of insurance policies, but also, amongst others, help courts to solve cases of medical liability (Pasceri 2021). The analysis

of numberless court precedents and the correlation of much more numerous variables, concerned with both facts and judicial reasoning, allows to reconstruct doctrinal and judicial opinions, and subjacent values, therefore to forecast future decisions with a higher level of reliability than in the past: A young specialist of Roman law in Milan University tried to demonstrate it by applying AI to Justinian's *Digest*! (Perani 2023). AI and Big data are of great help, again, in ascertaining the correct or incorrect way the media represent law, with a determinant impact on the public opinion (Llorca Ascensi *et al.* 2021).

In the field of public administration, the access to extremely wide universes of data already gives the administrators the chance to know citizens' behaviours and needs in detail and, reversely, gives citizens themselves some more opportunities to shed light on administrative procedures. Learning machines might also effectively replace what is called "whistleblowing" as a method to combat corruption (Kafteranis 2019). In the criminal and social security fields, predictive algorithms allow the police in many countries already to formulate reliable statistical provisions about the future behaviour of individuals on the bases of their ethnic origin or previous conducts (incidentally: this is a kind of labelling approach, fatally open to biases, that may put fundamental rights in real jeopardy).

Briefly, information about law has already undergone a profound transformation with both positive and negative effects. Amongst the former, let us mention the radical re-organization of legal firms and lawyering in general, as well as of courts, which is on the way everywhere. Amongst the latter, and besides the examples just made, I wish to mention the excess of available data. As is well known, a communicative system may suffer from either lack or excess of information. Too many data, especially if their source is beyond our reach, may disorient, disturb the system's operations and, paradoxically, extend decision processes, against the cybernetic logic that implies clarity and speed.

I said before that, as far as the formation of law is concerned, i.e. the production and enforcement of legal rules, intended to channel the conduct of social actors at all levels, if something of relevance has already been achieved or is being planned, the way to go seems still somewhat long.

In the field of finances, myriads of transactions are automatically completed in nanoseconds through AI-led algorithms that at least *prima facie* exclude the intervention of stock traders. Also, the production of effective single legal deeds is something already achieved to an extent. Corporations make use of algorithmically-led work procedures that affect not only the production of goods and services, but also the sphere of work organization, with a correspondent and widely debated impact upon the workers' rights and the labour market: there are vivid discussions about whether learning machines will enhance high scale unemployment (Bales 2016) or, rather,

whether will they “liberate humanity” from work (Rifkin 1995, 2014; De Masi 2017). Blockchain contracts, which “automatically implement their internal logic as certain preconditions are met” (Lauslahti *et al.*, 2017: 6) – react automatically to infringements that may occur along the implementation. There are, again, algorithms that allow to foresee the future incomes of a borrower, or the future decisions of arbitration bodies about the validity of clauses that impose extra charges on the contracting parties: mention, e.g., to the so-called *Claudette* programme for the analysis of standard contracts (EU directive, 93/13/CE), which is intended to distinguish automatically, in a contractual scheme, between “lawful”, “clearly unlawful” or “potentially unlawful” clauses, on the basis of myriads of precedents and influent doctrinal opinions.

Here the question just arises – as said before – about how far can AI go into the legal field. Even the last example, which seems to meet its objectives to a large extent (Contissa *et al.* 2018, on the application of *Claudette* in the sphere of privacy), shows that intelligent automation does not exclude spaces of uncertainty, for example when “potential unlawful clauses” are concerned. But besides this, how can more complex sets of private regulations be submitted to learning machines? Let us think, for example, of continuing contracts, such as an agreement between ex-spouses addressed to regulate the obligations towards their minor children, which is open to all the contingencies of life, amongst them those connected with the children’s teen age: how many variables should be introduced in the algorithm in order to allow a machine decide? I dare to say, we do not know too much, so far.

Similar remarks could be made about administrative action and, even more, judicial activity.

Within which limits can a decision about where a road should be built be taken by a learning machine, therefore without the intervention of that administrative body, which is usually called upon to ponder among competing interests? We may indeed hope that the level of discretionary power of public administrations be reduced, but how far, and how, first of all?

Although we have heard to talk about justice automation since decades already, and for sure the advent of artificial intelligence, with its correlation with Big Data, can now give much more force to such hypothesis, we still do not know enough – again – about how far can a learning machine automatically operate in both the reconstruction and interpretation of facts and their correlation with legal rules. And here comes to the surface the focal point of our subject. We should not forget that the judge, that *third figure* (Carbonnier 1978) who is called upon to reflect on factual evidence with the spirit of doubt and, after reflecting, to dispel doubts and decide, is said to be the very nutshell of law. As François Ost termed it, law is *L’Empire du tiers* (Ost. 2022), at all levels, from top to bottom. In all legal systems a judge’s activity implies an arduous exercise of interpretation of *signs* and

symbols, i.e. acts of communication interpretable on the basis of codes of significance: any deed, as any fact, displays a semiotic nature; any legal rule, any interpretation of a rule, is a system of signs. Up to which point can a judicial decision emanate not from semantic, but from syntactic connections (Devins *et al.* 2017), or, to put it differently, not from signs, but from automatically connected *signals*, which the algorithmic language consists of? (Rouveroy 2018). How far can a learning machine move from mere observation, however sophisticated, to the psychological state of a parent, a testator, a contracting party, a plaintiff, a victim, or a defendant? To which extent will it be apt to establish automatically whether there had been mutual mistakes in a contract, or whether a weaker party suffered from reverential fear, or to measure the grade of malice, or to go into the intricacies of *mens rea*?

So far, the experiments brought about revealed that there are limits along this way, may be due to the risk that algorithms themselves, which transform original signs into signals and therefore eliminate that “third figure” who doubts and decides, may hold – amongst others – a programmer’s mistakes or prejudices. I am sure that more steps forward are possible on the way to automatized judicial decision making, for example through further developments of research on the neuronal origin of rational concepts and ethical judgments. Yet, we must still understand if and where those development will have to stop.

The horizon is even more cloudy if we pass from individual to general legal regulation. National, international and transnational projects of smart legislation have been on the way since decades, under the assumption that artificial intelligence may at least help create laws capable to produce a pre-programmed impact almost automatically. A wide number of – so to say – meta-legislative documents, i.e. rules addressed to state in increasingly more detailed way what smart legislation should be like (I read a very informative report in a doctoral thesis: Carceller Stella 2022). Yet, if one moves from the meta-level of planning to that of concrete achievements, except from some marginal and may be promising successes, it is hard to encounter something really visible and stable, as far as an “algorithmic law-giver” is concerned.

In order to better clarify my opinion, or perhaps my feeling, it seems to me that in the field of the framing and subsequent enforcement of law what has been achieved so far, however impressive, is more an extension of the informative potentialities of machines, now infinitely wider than a few decades ago, rather than the fruit of the capacity of machines, *de facto*, to learn from their changing environment, and automatically adapt themselves to such changes. Of course, learning machines can actually add something to what they have received and processed. They actually get into the so-called black box of novelties. Yet, the limits of this extension are still largely unknown, in the sphere of the production of law.

My feeling, quite obviously, is open to all sort of challenges, and indeed any discussion to which I have taken part, as well as any paper I have read in the past few years, have come to inspire and modify it.

For the moment, I will confine myself to expressing a couple of thoughts.

The development of communicative technologies is so strong and speedy that it challenges law on the terrain of concepts, techniques and ethics, so much so that – as remembered before – even the most influential experts of artificial intelligence started thinking that some limits should be put to, at least, their actual effects. Last year, a group of protagonists in the AI field proposed to put a stop to generative AI, such as Chatbox GPT. In my country, the Agency for the protection of personal data had already blocked the Chatbox “Replika” which, equipped with an AI-based written and vocal interface, generated “virtual friends”, with imaginable risks for minors and emotionally fragile persons. UNESCO, also, had already laid down some fundamental principles to be respected in the use of AI: proportionality and no harm; security and protection, respect of privacy and data protection, governance and multi-stakeholder co-operation; responsibility and accountability; transparency and explainability; human supervision and decision power; consciousness and alphabetization; equity and non-discrimination. Again, as is well known, the European Parliament issued a complex Regulation of Artificial Intelligence, now in force (2024/1689), which enunciates some essential objectives in AI, among them: limitations in biometric surveillance, detection of emotional states and predictive police; obligation to certify that the content diffused through AI systems have been generated by AI itself; limits to the risks connected to the use of AI addressed to influence political vote.

Whether and how can law really hinder this technology is an open question, which reminds us of the old Marxian prophecy that technology, as a productive force, is anyway, may be in the long run, deemed to prevail over production relationships, even if legally regulated.

Here, then, without necessarily adhere to such conception, my feeling will take on some more dystopic connotations.

Precisely because technology (and economy in general) tends to impose its reasons, my suspicion is that, beyond the highly impressive achievements we see before us, most of which no doubt positive, artificial intelligence may be used to intervene in legal relationships by *radically reducing their natural complexity*. Such impact has a twofold aspect. Law is so complex for the multitude of contrasting expectations on which it is supposed to decide, that, for a paradox, quite often it does not bring about order, but rather disorder, unpredictability and unreliability. It did not come as a surprise that attempts to reconstruct an ordered legal life have taken place recurrently in legal history, as did Justinian with his compilation and the codification suggested by Enlightenment. And, surely, some more order would be useful,

especially in a period in which the idea of an irreducible crisis of law itself circulates so widely.

However, what I am afraid of is that precisely an excess of simplification may become the target of an increasingly small but powerful governing élite, interested to a mathematized social control in which free creativity, individual distinctions, prudence, equity, will be reduced to a very minimum. I mean a legal system organized on the basis of a sharply binary structure, black or white with no grey space in the middle, purely formal, easy to enforce. As far as possible, with no courts, judges, or public prosecutors, which are increasingly a governing elites' nightmare. A world in which all conducts, automatically ascertained, will have one and only one "price", automatically imposed: let's say, X years in jail for a homicide, no more no less, with no regard to any doubt or circumstance, objective or subjective, aggravating or mitigating. This example could be extended to all kinds of relationships in any field of legal and political life, and could be also reposed as a new approach in legal education. This would be indeed a new legal revolution, but also, alas, the crystallization of a rigidly stratified human society, led by programmers and, behind them, their inspirers which dominate the economic global system and in fact control the political élites, since behind the most sophisticated learning machine there has been anyway an original human brain who inserted into it its wills, concepts and plans, good or bad, intelligent or stupid. Needless to say, something quite far from what we conceive of as democracy, which in fact is already at real stake in our times.

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