Repairing damages caused by artificial intelligence: French law needs to evolve

Abstract

Artificial intelligence is now an unavoidable topic, and is increasingly present in our daily lives. Undeniably beneficial in some respects, artificial intelligence can also cause damage. Yet French law does not seem ready to optimally compensate damages "due to artificial intelligence". It is urgent to reflect on the opportunity of creating a specific liability regime.

French courts have issued only few decisions on this subject so far due to its highly technical nature. However, the First Civil Chamber of the French Supreme Court (Cour de Cassation) was confronted with this question in a dispute over a suggestion made by the AI used by Google Suggest, which associated a company's name with the mention "fraud" (2). The Court overturned the Court of Appeal's ruling that had granted compensation, and considered that "the feature leading to the criticized association is the outcome of a process purely automatic in its functioning and random in its results, and therefore the resulting display of "key words" is exclusive of any will of the search engine operator to display the statements in question". This decision illustrates the difficulties of imputation and characterization of liability when it comes to damages involving AI.

Liability issues are all the more complex as the actors involved in the "AI chain", such as the software developer, the supplier, or the owner of the object endowed with artificial intelligence, are very numerous. We will demonstrate that it will probably be necessary to consider creating a specific liability regime, whose outlines still have to be defined.

I. THE LIMITATIONS OF CURRENT LIABILITY REGIMES IN THE FACE OF PROBLEMATICS RAISED BY ARTIFICIAL INTELLIGENCE

Ordinary law quickly proves to be inadequate in the face of the new characteristics of the legal object AI. The special liability system for defective products appears to be the most appropriate regime at present, with a few changes.

A. Ordinary law liability regimes are unable to deal with artificial intelligence

It may be tempting to apply the fault-based liability regime set out in Article 1240 of the Civil Code (former Article 1382), in case of damage resulting from AI. The scope of this regime is however limited.

(1) ISO (International Organization for Standardization) standard, updated in 2015, aiming to facilitate international IT exchanges, and presenting a set of terms and definitions relating to selected concepts in this field.

(2) Cour de cassation, 1st Civil Chamber, June 19th, 2013, n°12-17.591.
It can only be implemented if it is possible to characterize an intentional or unintentional fault, for example in the initial programming of the AI, or in its use. Yet most of the damages in question are not caused by fault. For instance, an expert system for medical decision support, such as Watson, developed by IBM, may misdiagnose with very serious implications, without any error in its development or use.

Some authors suggest to apply the liability regime "due to things" (du fait des choses) set out in Article 1242 1st paragraph of the Civil Code (former Article 1384), the "thing" in question being the AI. However, after analysis, this regime does not seem appropriate. It was designed for physical objects (3), and does not adapt well to the immateriality that characterizes AI. Assuming we consider the hardware, support for AI, to overcome this difficulty, the issue of "custody of the thing" (garde de la chose) remains unresolved. To attribute responsibility to the "guardian" of the thing, he has to exercise the powers of use, direction and control over it. But the "consubstantial function" of artificial intelligence is to "serve man by claiming to relieve him of a control which would otherwise be his" (4). Therefore, it is not a transfer of custody, but a "complete disappearance of custody" (5). The development of totally autonomous cars, such as Google Car or Tesla Autopilot cars, is explained by passengers’ desire to completely delegate control of the vehicle. Thus, artificial intelligence is by nature beyond the control of man, making the application of the liability regime "due to things" inappropriate.

B. Adapting liability for defective products: a temporary solution

Within positive law, the regime which seems best suited is in fact liability for defective products (Articles 1245 et seq. of the Civil Code). It appears that the application of this regime will not be problematic in the hypothesis of damage linked to a security defect prior to the "entry into circulation" (mise en circulation) of the artificial intelligence.

However, this regime currently has many limitations for other more complex situations. The notion of "defect", conceived as an absence of safety, is problematic, given the complex functioning of AI. Actually, in most situations, the damage would have been the same or even greater if artificial intelligence had been human intelligence. Furthermore, the grounds for exemption could often be used. Indeed, AI is characterized by its continuous evolution, and its capacity for autonomous learning.

Yet, the mere fact of proving that the defect occurred after the product entered into circulation defeats the application of this liability (7). Similarly, the excuse of development risk (8) may be raised. This exemption, introduced by European law to encourage technical progress, offers some latitude to the producer, who could invoke it.

In order to apply this liability regime to damage caused by artificial intelligence, it would therefore be necessary to introduce a number of derogations from the general rules. In addition to a loosening of the notion of "defect", some authors simply suggest to remove the exonerating causes when it comes to artificial intelligence (9).

However, this solution is only viable in the short to medium run, and future developments in artificial intelligence will necessarily lead to new difficulties. There can already be situations in which the damage cannot be repaired on the basis of liability for defective products, even in its broad conception, especially if the defect is exclusively related to "negative effects of learning and decision-making autonomy". For example, a system used in trading rooms, such as LOXM MOI artificial intelligence (10), could lead to substantial financial losses after taking excessive risks, not because of its initial programming, but because of careless use by its owner.

II. WHAT SOLUTION FOR AN OPTIMAL REPARATION OF DAMAGE "DUE TO ARTIFICIAL INTELLIGENCE"?

Thus, current law is not able to cover all situations, not even after making certain adaptations. The need for a new liability regime "due to artificial intelligence" must be discussed.

A. The inadequacy of the alternative solutions currently on the table

Alain Bensoussan, a lawyer specialized in the law of new technologies, suggests creating a proper legal personality for robots equipped with artificial intelligence, on the model of the "legal person" (personne morale) (11). This idea was reintroduced in the European Parliament resolution of 16 February 2017 (12).

(7) Civ. C., art. 1245-10: "A producer is liable as a matter of law unless he proves: (…)"

2° That, under the circumstances, it is likely to consider that the defect which caused the damage was not in existence when the product was put into circulation by him or that this defect came about afterwards"

(8) Civ. C., art. 1245-10: "A producer is liable as a matter of law unless he proves: (…)"

4° That the state of scientific and technical knowledge, at the time he put the product into circulation was not such as to enable one to detect the existence of the defect"


(10) AI program developed by J.P. Morgan for trading operations.

(11) Bensoussan A. and Bensoussan J, Droit des robes, 2015, Larder.

(12) European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)).


(6) It should be noted that the AI itself can only be put into circulation via the support in which it is integrated (robot, car, drone, etc.).
However, the European Economic and Social Committee (EESC) has expressed its clear opposition to this proposal (13). Moreover, many authors are very hostile to this idea, going so far as to speak of a "legal incongruity". They believe that this creation would not be an effective solution to the problems of compensation, and also warn against the risk of relieving the various actors involved in the design and implementation of artificial intelligence of their responsibility (14). Furthermore, the creation of a guarantee fund, the cost of which would be covered, at least in part, by the industrialists, is a potential avenue for reflection. This mechanism would make it possible to compensate the victim for damage caused by an autonomous connected object, without having to seek the fault of a natural or legal person. However, such a fund could also lead to the disempowerment of those involved.

Some countries have chosen to focus on preventive solutions to minimize the risk of damage upstream. For example, it is suggested to rely on soft law, and some draft charters are in progress, in particular in South Korea. Several decades ago, Isaac Asimov, an American-Russian writer, had already imagined a set of rules based on the robot's obligation never to injure a human being. This proposal is taken up by Ron Arkin, an American robotician and robo-ethics professor at the Georgia Institute of Technology's School of Computing (17). While these preventive tools can indeed provide a better framework for liability due to artificial intelligence, they can only serve as a complement to a real evolution of positive law.

B. The need, in the long run, for a new liability regime "due to artificial intelligence"

In the long term, it will be necessary to put in place a new special liability regime, "due to artificial intelligence". Although several authors share this view, they do not always agree on the terms of this new regime. Some suggest setting up a strict liability, based on a "presumption of defect" in artificial intelligence programming (18). Others are in favor of setting up a system similar to the animal liability system, which would make the user of artificial intelligence responsible for compensation (19). However, we must remain cautious: because of the diversity of uses and damages caused by artificial intelligence, it would be risky to systematically place the responsibility on one or the other of the actors involved. The new regime must therefore ensure that there is no disproportionate responsibility, for example on the part of the hardware manufacturer in relation to the software publisher. It should also allow adequate compensation for victims, while avoiding excessively slowing down the technical progress allowed by this new tool.

Thus, even if we should not rush and we still lack experience with this technology, it will soon be necessary to find an appropriate legal framework for the compensation of damages caused by artificial intelligence. Drawing on the theory of equivalence of conditions, a system of shared responsibility between the various players would make it possible to avoid the introduction of an exclusive imputation of the damage to one of the members of the "artificial intelligence chain".

---

(13) EESC opinion issued on May 31st, 2017: "The consequences of artificial intelligence on the (digital) single market, production, consumption, employment and society"

(14) Bensamoun A and Loiseau G., previous doctrine


(17) Loiseau G. and Bourgeois M., previous doctrine
