

# Legal technology's economic impact on the law market

**Bruno Deffains**, professor, Université Panthéon Assas and IUF

## **Abstract:**

Legal technology is modifying the economics of the law by offering new services and lowering the costs of existing services. Legal professionals are gradually being forced to reorganize their activities and their relations with colleagues.

The French law market amounts to more than €31 billion, 1.3% of the GDP (BALLER & DEFFAINS 2017). Like several other branches of the economy, it is confronting the unprecedented technological shock of the digital transformation. The structure of this market is changing as legaltechs emerge. This context makes it hard to precisely assess all the effects of this transformation, which, in addition, coincides with changes in the regulation of the legal professions. The difficulties inherent in measuring the law and its consequences on economic decisions are probably among the reasons accounting for the lack of knowledge about the law market's economic characteristics. It is urgent to address the economic issues related to the law market's digital transformation from a vantage point both microeconomic (the performance of economic agents on this market) and macroeconomic (the law's contribution to economic growth). Ultimately, how much potential do legaltechs have for accelerating this market's growth?<sup>1</sup>

To answer this question, it is worthwhile examining: first of all, the nature of the digital transformation of the law market and the ability of economic agents to adapt; and secondly, the effects of the digital transformation on legal professionals and, too, on litigants, the "consumers of the law".

## **A few characteristics of the law market**

The law market has specific characteristics. Since the services produced by justice, in particular tribunals, has the properties of public goods (nonrivalrous and nonexcludable), the state traditionally provides them while guaranteeing impartiality and the quality of court decisions, and seeing to their execution. As a consequence, the cost of a lawsuit cannot be treated like an adjustable variable since fee schedules for these services are regulated.

From a classical economic viewpoint, the law market is characterized by an inelastic supply (at least in the short run) and fixed prices. Given these characteristics, another is the deep information asymmetry between the two sides of this market, since parties on the demand side often have limited knowledge of the law. This argument is often advanced to justify regulations for limiting the economic rent that legal professionals draw from this information asymmetry.

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<sup>1</sup> This article, including quotations from French sources, has been translated from French by Noal Mellott (Omaha Beach, France). The translation into English has, with the editor's approval, completed a few bibliographical references.

The demand for the services of justice is varied and segmented (private persons, firms, etc.). Given the inelastic supply, demand might even be rationed. Since it is partly created by the supply of legal services, demand also has the characteristics of a side-effect. Evidence of this are the legaltechs positioned on segments of the law market that did not use to be served because supply was inadequate. Supply and demand are interdependent, since demand partly depends on the behavior of service-suppliers: the more lawyers in a market, the higher the purchasing power. To illustrate this observation: there are definitely more lawyers in Germany or even the United States than in France; and their income is also higher than that of French lawyers. Furthermore, the American legal market (which is, of course, bigger) also has the biggest legal consultancy firms (such as Axiom) and the most advanced legaltechs.

Legaltechs have innovated by interesting firms and private persons in areas of the law that used to be seldom worked, whence the question of whether legal professionals are prepared for these changes and the broader question of this profession's marketing savvy. Entrepreneurs in the digital realm often start out from a demand that is unsatisfied or that the market has revealed — a demand that could or should have been detected much sooner (before software programming techniques) by listening to clients. The problem of learning how to program, for example, has long served as an excuse. Nowadays, new computer tools are helping beginners program robots.

## **Adapting to a knowledge-based economy**

The law market can draw several advantages from digital technology. The tools of artificial intelligence (AI) can modify law firms' business models (DEFFAINS & BALLER 2017). Blockchain technology can make information reliable and secure. Smart contracts can eliminate intermediaries during the execution of contracts. Predictive justice can help stabilize or even predict interpretations of case law. For sure, all these innovations raise new legal problems related to responsibility, the operation of the judiciary (CEPEJ 2016) and the legal professional's roles (as in Belgium: *cf.* HENRY *et al.* 2018). These benefits are difficult to gauge and quantify however. Dissatisfaction with the classical model is, we notice, accelerating in a knowledge-based economy with new forms of price-based competition (in particular the platforms that propose legal services) and new techniques that tend toward "disintermediation" (*e.g.*, blockchains).

Digital platforms — what economists call two-sided markets — are a relatively new subject of study. In effect, the digital transformation is having two actions that we often mix up. On the one hand, it is multiplying and boosting traditional market services, online sales being the best example thereof, the transposition of a familiar business model into the digital realm. This aspect for new studies but does not make a break with earlier ones. On the other hand, the digital transformation is also creating, mainly via online platforms, services that did not previously exist, services born with the technology.

These innovations challenge the law market to adapt to a knowledge-based economy, which, as the phrase suggests, signals a disruption in the operation of the economy. In this new economy based on an immaterial capital, a disruption occurs owing to the role that knowledge plays via information and communications technology (ICT). Thanks to ICT, knowledge can be systematically accumulated in databases, consulted and used. Evidence of this are the hopes placed in big data on case law. Artificial intelligence, a powerful tool, applies codification to ever more complex bodies of knowledge. Knowledge can be "distributed" on a vast scale, and its diffusion will likely spawn new knowledge. From this viewpoint, we see no reason to restrict the access to knowledge. ICT's development backs the production of collective, interactive knowledge. By lowering the costs of transmitting and codifying knowledge and by favoring the transmission and codification of more complex sorts of knowledge, the digital transformation is a major factor in producing externalities related to knowledge.

A key to understanding the production of knowledge is to analyze how value is added to information — value derived from promoting, using and more widely circulating information. These changes have to be understood in relation to the law market. Not everything can be shared: know-how and the contextualization of “raw” information can hardly be separated from the person of the legal expert. This is what economists call tacit knowledge (POLANYI 1966) in reference to the fact that we always know more than we can put into words. It is one thing to have access to court decisions, but another to understand them and formulate appropriate advice. The computerization of legal data can hardly, therefore, lead to “deterritorialization”.

Besides, the major economic problem related to knowledge is its reproduction, which involves, even when information has been codified, a learning process (FORAY 2000). Even though legal information is easier to access, it is not any easier for nonjurists to make sense of it, since it depends on the judicial system. Information thus turns out to be an intermediate economic variable, an operational lever for managing knowledge. It is necessary for legal professionals to acquire special qualifications in order to benefit from advances in knowledge and use information, which has been stored and circulates more and more efficiently. The possibilities of storing and circulating information depend on the progress made in codification. Knowledge diffuses all the more quickly as advances in digital technology are made faster and as individuals are educated and become proficient in this new technology.

## **Changing the legal professions**

The legal realm is experiencing a major technological shock as newcomers enter this market. Legaltechs are redesigning the value chain of legal services by integrating artificial intelligence (through insourcing and outsourcing to partners). Legaltechs offer “legal firms”<sup>2</sup> tools for improving the productivity of services, sharing knowledge and, perhaps tomorrow, integrating the risk-management tools that are nowadays scattered throughout the organization.

The launching of Ross Intelligence, a Canadian startup based on IBM’s Watson, sent a strong signal to the law market. This new tool, which is supposed to become more intelligent as it is used, is basically a search engine that accepts questions in natural language. This event made legal professionals aware of the need to adapt their activities to the introduction of AI. Many AI tools in the legal field are search engines ameliorated for consulting acts of law and legal precedents (EZRATTY 2017). More sophisticated applications have also sprung up for comparing and optimizing contracts, and making predictions about the outcome of lawsuits, in particular by calculating a probability based on processing past data. In the main, the AI techniques used in the legal field are oriented toward natural language processing. In the United States, more than half of the law firms with more than a thousand employees are already using AI;<sup>3</sup> this percentage is 10% lower in firms of a smaller size. This situation reminds us of the many independent professionals (notaries, chartered accountants, doctors) whose situation, as a result of technological disruptions, is vulnerable because the profession is splintered and its members are slow to adapt in comparison with big, well-structured organizations (DEFFAINS & BALLER 2017). AI solutions also have an impact on paralegal occupations in law firms. Ultimately, they “*improve the productivity of several professionals, just as spreadsheets have, for several decades now, been doing for the occupations that work numerical data. Like any widely deployed technology, AI could make the legal market bigger by facilitating the emergence of new segments while having a deflationary effect on prices*” (EZRATTY 2017, p. 234)

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<sup>2</sup> This phrase refers to lawyers’ offices as well as the offices of other members of the traditional, regulated legal professions and to the newcomers with new practices on this market (such as alternative business structures, ABS, in Great Britain).

<sup>3</sup> <http://www.altmanweil.com>

Given the difficulty of monitoring cost and price trends (DEFFAINS & BALLER 2017), no assessment has yet been made of the productivity gains due to the use of digital technology for specific activities (*e.g.*, the search for documents). As much can be said about employment trends (BALLER & DEFFAINS 2017). At the start, an innovation is expensive; but as it diffuses throughout the market, entry barriers dwindle or eventually disappear. The law market is not exempt from this remark. Most law offices will eventually be equipped with the new tools, even more so if leverage for diffusing legaltechs is gained by pooling small offices (to compete with big law firms) or by obtaining assistance from the organizations representing these professions. Being big is, therefore, not a decisive argument in favor of the diffusion of digital tools.

Nonetheless, the quite significant investments to make in time and money in order to undertake digitization and transform activities require a capacity for mobilizing multidisciplinary teams (qualified persons from several professions), for delegating major responsibilities to persons who are not lawyers or for designing strategies of alliances around these new jobs. Income based on recurrent payments is a far cry from invoicing the number of hours devoted to a case. Bear in mind that prices are the only discriminant in situations where a service becomes a commodity and knowledge is shared. The newcomers in this market who respond to this need to manage costs or the organizations that are capable of managing change will win out against the lawyers who are less mature or whose training in managerial activities is not up to par.

It is also very likely that part of the demand for legal services on the existing market will be met by newcomers who use these new tools to enter the law market: legal process outsourcing (LPO) providers, platforms for putting people in relation, the professionals who know how to crunch numbers. Richard Susskind (2013) has gone so far as to estimate that more than 50% of this market would, by 2023, be satisfied in this way (in application of the formula “more for less”).

This diffusion of legaltechs will weigh heavily on the law market’s structure by, in particular, intensifying competition, especially in business-to-business (B2B) transactions, which attract the majority of market players. Behavioral changes on the demand side, as it evolves, will fan these tensions. For one thing, new market segments are emerging as customers who used to stay out of this market decide to enter it; these persons either benefit from the “popularization” of legal information, which improves their understanding of it, or become litigants as business activities are increasingly “litigated”. For another, the clients, old and new, demanding legal services are exerting pressure on prices by demanding transparency or making more “professional” purchases. In the biggest law market (€600 billion in 2016), a few indicators suggest falling profitability: an estimated decrease of 25.8% between 2004 and 2014 for the American market (GEORGETOWN... 2018). This can be set down to stiffer competition on the supply side and behavioral changes on the demand side.

For sure, law offices have never been under as much pressure to adapt by innovating and to review their fee schedules by abandoning the classical model of “costs plus fees”. Some big firms are seeking partnerships, while others are outsourcing legal and fiscal matters in order to amortize know-how and delegate the management of the personnel whom they do not deem to be “strategic” or to be part of the “core business”. Here too, the digital transformation leads us to inquire into the methods whereby the lawyers who want to enter into long-term relations centered on clients instead of on cases can establish their fee schedules.

The major consequence of these changes is a modification of the value of legal services, understood as the service’s utility to a client. This will become visible in a reduction of the upper price limit that a client is willing to pay for a given service. Lawyers’ clients demand more efficiency and foreseeable prices for the services requested. Since the information asymmetry is diminishing, the dominant, classical business model based on hourly rates cannot meet up to clients’ new expectations. The value of legal services will probably break free of the transaction value fixed by an hourly fee; it will tend toward a use value related to the value that the client gives to the service. This new approach to value means that legal professionals will have to modify their business model.

The microeconomic approach to legal services thus sheds light on the importance of the conditions related to a law firm's organization and fee schedules. However the price of services has been given little thought and is not taught in law school. The modification of the business model will have to go in hand with a change of culture, since the classical approach of increasing profits by reducing costs will soon meet its limits (as happened in aviation). After all, personnel costs and many other costs, in particular for technology, are fixed. Efforts to remain profitable must, therefore, be concentrated on the sources of income. This calls for innovations to offer services that are not comparable.

A remark is in order about research and development (R&D). In telecommunications, the share of income devoted to R&D is 13%; in biotechnology, nearly 20%. Whereas the average R&D investment ranges between 3% and 4% in the economy as a whole, the law industry devotes less than 1% (US data, 2016). Other questions have to do with the organization of R&D.

Beyond these microeconomic comments on the organization and profitability of law firms, we can imagine that current technological breakthroughs are going to have effects at a more global level. The preceding analysis shows how the process of creative destruction affects the law market, firms and private persons. This is not at all a new process: industrial revolutions always wreak disruption as Schumpeterian entrepreneurs introduce an innovation and are then imitated until the innovation has diffused throughout the market. What is difficult is to predict the duration of this process, the speed at which innovations diffuse. Who is able, at present, to make an assessment of the impact of investments in Ross Intelligence on big networks?

## **Dejudicialization and access to the law**

A major question about the digital transformation in the law market and the legaltech newcomers has to do with access to justice for litigants. How will demand adapt to this transformation through two key objectives: accessibility and efficiency? When implementing technological innovation, the pursuit of these two objectives might lead to reconsidering the distribution of justice, reforming the access to justice or reviewing the methods of justice. Beyond the use of new tools, how does this digital transformation generate "social value"?

The digital transformation now disrupting the law market has an awesome potential for improving the efficiency of public services in the realm of justice. Digital technology has already opened the way for startups (legaltechs), which offer a wide range of new legal services, to enter the law field. In parallel, it has opened the way toward innovative methods that, grouped under the heading of cyberjustice or e-justice, are being used to process or interpret demands for justice (INSTITUT MONTAIGNE 2017).

Accessibility also means asking whether it is easy to choose the intermediaries (in particular lawyers) needed for a lawsuit. Legaltechs propose making this easier. They offer services for helping to choose an attorney, to formulate a demand, or to obtain advice about undertaking an action in justice. These online services are thriving thanks to price competition, since the competitive advantage tips in favor of digital services over classical lawyers.

Another source of change stemming from legaltechs has to do with "dejudicialization" and the flow of information. Dejudicialization, which the new technology can help realize, is a major preoccupation of public authorities. It does not entail eliminating legal professionals, since their interventions will always be needed (except, perhaps, for the interventions by judges). Disintermediation via blockchains, for example, tends to be a "reintermediation" since trusted third parties, such as notaries, still play an important role (MEKKI 2017). The reduction of "legal risks" means setting more value on case law (DEFFAINS & THIERRY 2017). Thanks to a blockchain of court decisions, information about disputes can be improved and processed (HENRY 2014). Thanks to the exhaustiveness of big data, standardized cases of litigation can be handled better (HENRY 2011). Nonetheless, dejudicialization should not become a fantasy: it does not concern all branches of the law. Interventions by judges will be necessary in penal matters or in cases related

to persons under guardianship, for example. Besides, even though technological tools reduce information asymmetry, litigation will often be the only conceivable recourse.

In general, the increasing use of digital technology will very likely boost the recourse to alternative methods of dispute settlement. As game theory taught us long ago, someone who knows he has an 80% risk of being ordered to pay €10,000 might be inclined to accept an offer at €8000. So, one of the hoped-for benefits is to reduce the number of cases that go to court as more importance is set on the legacy of case law. Algorithms prove quite useful in civil law, whereas penal cases raise other issues (not addressed herein). All economic studies agree that predictability is a necessary condition for the efficiency of the judicial system, since it both reduces the costs of transactions and boosts social cooperation “in the shadow of the law”.

Given the advent of “prescriptive” or “simulative” tools and of techniques for rationalizing the decisions made by “augmented” judges, we wonder whether the budgets being planned will be sufficient. This question about the means of justice is worth mentioning.

We can glimpse the economic stakes by examining the sorts of lawsuits filed in civil court. Out of the 2.7 million new cases in civil and commercial courts, 432,000 are in family law; 356,000, in contract law; and 348,000, in the law of persons. In other words, ears are needed in more than 40% of lawsuits, and the services of an attorney. For the others, especially cases in business and labor law, might alleviating the legal procedures that do not require representation by an attorney or improving legal knowledge and its circulation thanks to legaltechs not also modify the work of legal professionals and redefine needs? Difficult cases could thus be given more time while the logical cases with an outcome that can be simulated could be processed. Rationalizing the handling of “technical” cases could speed up decision-making, especially in commercial courts (174,969 new cases), labor courts (184,096 new cases) and social service courts (105,903 new cases): in all, 17% of the 2.7 million cases. This approach might improve quality while allowing firms to reduce their contingency fund for covering legal costs. When assessing what digital technology contributes (other than making more fluid the exchanges of documents and agendas for the preparation of hearings), we must be realistic. After all, judges and lawyers will always have to be present to handle the 352,337 juvenile court cases and the 248,450 cases that are appealed.

The state could become the first legaltech in France via the offer of services for a community-based justice and for an electronic “justice of the peace” that would circulate information about alternative, less expensive methods for obtaining justice. Is there not, as some lawyers have claimed, a better way to handle the 67,875 divorces by mutual consent? And the 494,127 orders to pay that are turned over to bailiffs? On 6 October 2017 in Nantes, the prime minister and the minister of Justice, speaking about the five big priority projects for the Ministry of Justice, emphasized the digital transformation as a means for improving transparency, monitoring proceedings and improving accessibility. They also mentioned the simplification for very common cases of civil proceedings without an attorney.

In conclusion, the technological transformation is on the move, having turned up a new demand for legal services and a new segmentation of the client base. Judicial and regulatory agendas are ever more loaded. The education in the law provided to economic agents is wanting.... So, even if future jurists, including lawyers, could be better trained in digital technology and innovation, we would still need to ask questions about the potential market if all legal professionals were placed in a single “corps” so as to form a collaborative legal network (which would be strong in France). The realm of the law will be an even more interdependent ecosystem where economic agents, legal professionals and newcomers will have to learn and be trained as they undertake this adventure into a new technology. This knowledge will have to become part of the curricula in law schools. Without wanting to create a single legal profession (as in the United States — an option worthy of consideration), can we not muster the forces of lawyers, corporate attorneys and legaltechs in order to train experienced employees and thus advance the transformation under way? This makes sense microeconomically; but as pointed out, the macroeconomic stakes of growth and development are just as important.

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