

ЗАРУБЕЖНОЕ И МЕЖДУНАРОДНОЕ ПРАВО

UDC 340.5, 343.1, 343.9

Development of legal-tech prospects in the Federal Republic of Iraq: The predictive justice in Anglo-Saxon and Latin perspectives*F. A. A. Abdulkareem*Duhok Polytechnic University,
61, Zakho Road, 1006 Mazi Qr Duhok, 42001, Kurdistan — Iraq

For citation: Abdulkareem, Fahil Abdulbasit A. 2023. “Development of legal-tech prospects in the Federal Republic of Iraq: The predictive justice in Anglo-Saxon and Latin perspectives”. *Vestnik of Saint Petersburg University. Law* 4: 1045–1061. <https://doi.org/10.21638/spbu14.2023.413>

The research presents an academic study which examines according to a deep critico-analytical approach, one of the most controversial modernist issues in Western jurisprudence circles, specifically French, and by which we mean the reality of judicial justice in the digital age according to the concept “Predictive Justice”, and the consequent effect of this justice on judicial justice within the legal justice system in legislation. The French system, with the highlighting the Anglo-Saxon experiences, this is according to a research scheme that presents in its first section the opportunities which offering by this concept to the judicial justice system as a whole, especially in light of strengthening the principle of Democracy of Justice; and in its second section, the challenges which this concept poses to this traditional justice system and the fear that it could remould the judicial justice system digitally and regionally, concluding research with a set of results and recommendations, which stimulates the Iraqi criminal legislator with a scientific mechanism to introduce the Predictive Justice to the Iraqi criminal doctrine. The research shows the state of anxiety and anticipation that prevails in this new justice concept in the French legal environment, explains the concept of Glass Justice, Digital Computational Justice, and Capitalist Justice, as well as the fear of stereotyping judicial work with a duplicate digital template, and modelling justice with the Anglo-Saxon’s justice features (source and identity).

Keywords: predictive justice, algorithmic criminology, democracy of justice, big data, artificial intelligence, machine learning.

1. Introduction

The idea of research comes via researching attempts in-depth legal study format (Critico-analytical study), to enlighten the reality of judicial justice in the digital age¹ (Haller 2010) according to the concept of Predictive Justice² in Anglo-Saxon and Latin jurisprudence, and the consequent impact of this new justice on the classic judicial justice, with the aim of clarifying the legal position of it, and the challenges which this justice imposes on the classical judicial justice, especially In French legislation, as well as analysing the success possibilities in providing a new judicial justice with more efficiency than its traditional counterpart, in order to understand how to deal in future with this justice and the variables that it would be carry out, so that we could prepare for this digital transformation in the concept of justice.

Despite the large number of propositions that were, until recently, imaginary, and recognised axioms, which made the intellectual system in many human sciences, including legal ones, reconsider many of the controversies that constituted the theoretical and intellectual framework governing these sciences. What were just anomalous, individual, unacceptable opinions are today facts that represent the logic closest to the truth and credibility. Most of all, this hypothesis applies to the case of the current intermarriage between artificial intelligence and many human sciences, including legal ones (Legal-tech), which resulted in a hypothetical, forward-looking justice that is known in the jurisprudential circles as the Predictive Justice, it was represented by the latter's ability to assist the judicial institution in reaching a more reliable legal justice, thus reaffirming the interdependence between law and mathematics, and that justice, as it has its human side, also has its statistical mathematical side, and both of them meet in one pivotal element: "PREDICTION", considering that access to justice In essence, it does not deviate from the use of a set of legal skills and expertise in analyzing and understanding the legal text and the circumstances surrounding it, according to the concept of legal analyses, within a legal prediction that makes the judge feel that what he utters is justice.

Here, we point out that the goals, objectives, and conclusions of the research is not to delve into the rules of judicial justice in French or Anglo-Saxon legislation through rooting and analysis, or to deal with aspects related to this justice in the civil, criminal or even administrative aspect. All of this — despite its importance — remains outside the research, which will focus in depth and analysis, on the impact and repercussions of the digital environment on the concept of judicial justice in the concept known as the Predictive Justice, within the system of legal justice in French legislation, with as much light as possible on the Anglo-Saxon experiences.

¹ Which is nothing more than the result of the unprecedented invasion of the "Digital Smart Revolution", with its three components: the Internet of Things and Big Data, in addition to Artificial Intelligence in various human sciences, including Legal.

² There are many legal names for this justice between: quantitative justice, analogous justice, normative justice, isometric (isométrique) justice, prévisible justice and simulative justice, but the most stable around it is the term predictive justice, which is the translation derived from the Anglo-Saxon system. Noting that the idea of predictive justice is a relatively recent idea, and its beginning dates back to the second half of the last century, in the late sixties of the last century in the United States of America, then to move to European countries, but the talk about it was only within the framework of individual ideas and propositions about the benefits of entry (Razmetaeva, Razmetaev 2021). In this concept, and its ability to reduce the legal error in the judicial ruling in a forward-looking dimension of error-free justice, through the use of a set of techniques via algorithms that attempt to extrapolate and analyse jurisprudence.

Therefore, the idea of the research does not represent a traditional legal study, as much as it represents a brainstorming aiming for understanding the nature and entity of the predictive justice, and its impact on the traditional justice system in the French school, and how to control the challenges which would be raising within this new legal environment. All of that would be done according to a framework study that deals with the nature of relationship between predictive justice and traditional justice from two main aspects: *the challenges* (Manyika, Chui 2013) which this new concept poses into the traditional justice system, and *the measures that might be taken to transform these challenges into opportunities* that would advance the traditional justice not degrade it³ (Katz, Bommarito II, Blackman 2014). So if the predictive justice would bring judicial justice closer to all those who interested in it, which might strengthen the principle of the democracy of justice, that's on one hand. But on the other hand, this would be done according to the digital justice concept which is coming to us from Anglo-Saxon school, and there is a fear that this new justice would reshape digitally and regionally the French judicial system⁴.

2. Basic research

2.1. Strengthening the democracy of the judicial institution

The principle of the cognitive dissemination of legal information, whether jurisprudence or judicial due diligence, is one of the well-established principles in the system of French legal foundation, nowadays, the Big Data which adopted by the French legislator⁵ as a main base in dealing with jurisprudential and judicial due diligence archives is one of the most important features that have dominated the concept of justice in the digital age, for both the government and the legislator alike, especially after the adoption of the

³ According to the American jurist O. W. Holmes, one of the founders of the realist school of law, law is the predictions that court judges make in their judgments. Within this concept of "predict" was born the idea and obsession with knowing the probabilities of the success or failure of the lawsuit that the litigant could submit. And it constituted a great concern for litigants and their clients. Where the American attorney R. Lawlor in 1963 by entering some data about one of his lawsuits to know the possibilities of success and failure in it, and then other legal researchers followed him with arithmetic, probability and correlation equations with the aim of extrapolating a future judgment in a case. And recently, the American researcher J. Blackman developed a mathematical model of predictive justice, which dealt with the rulings of the US Supreme Court, with a reliability rate of 75 %. Finally, in the year 2016, a team of American and British researchers in the fields of informatics, law and psychology developed an algorithm capable of extrapolating a set of judicial rulings of the European Court of Human Rights, through a set of facts, with a reliability rate of 80 %, at a rate of eight court rulings for every ten (Kischel, Hammel 2019).

⁴ Wrong, who thinks that this matter will be far from the legal system in any country, as many countries have begun to prepare their judicial institutions and prepare their graduates to adapt to this new face of justice, as many legal centres for the training of jurists and lawyers have begun to train their affiliates on this technology in cooperation with various sectors government and educational institutions. Especially within the framework of the forecasting program for education and research carried out by a number of French universities and legal schools. In 2017, about 600 students were trained at the University of Nîmes (Nîmes, France), who were supposed to have entered the labor market in 2018, and in 2019 the university opened a diploma in predictive justice.

⁵ See: "European Union Agency for Fundamental Rights". *Artificial Intelligence, Big Data and Fundamental Rights. Country Research France*. 2020. Accessed July 1, 2023. https://fra.europa.eu/sites/default/files/fra_uploads/fra-ai-project-france-country-research_en.pdf.

Digital Republic Law of 2016⁶, which obligated the judicial and administrative bodies to publish judgments which issued by them free of charge, within the certain conditions, which constituted an important and renewable key material for various workers in the field of predictive justice, to become one of the most profitable legal activities, thus, the justice in its traditional form has become closer to the various workers in its sphere, and more expensive for those who wish to deal with it in its digital form rather than traditional form, which has made justice more open and more expensive.

2.1.1. The predictive justice and the principle of openness and access to judicial information

The Principle of Openness and Access to Information is based on a discretionary database which consisted of a huge amount of legal information in which the objective goals may be mixed with the subjective goals, and that makes the setting the conditions of use that frame the informational dissemination process of the data that make up this principle a necessary necessity.

2.1.1.1. The principle of openness and access to judicial information

Since its inception, the judicial scholars endeavours for people's judiciary has been pursued, to make the law in its jurisprudential and due diligence dimensions a known law to the public before the private, and closer to all those who concerned with it, litigants, judges and lawyers, in order to achieve the justice system transparency, this endeavours has never been so close to fulfilling what it is now, with the age of informatics and the possibility of massive digital publishing according to the concept of Open Data, including those which related to the judicial data, these Open Judicial Data base will become accessible to everyone according to a Big Judiciary Database (Big Judicial Data) (Hyde 2019).

2.1.1.2. Conditions on judicial information dissemination

The broad and unprecedented dissemination of these judicial rulings (Big Judicial Data) (Segal 1984), which explicated as a constitutional right, would collide with another constitutional principle, which is the right to privacy and respect for private life, which is protected in civil law, information law and the protection of personal data, and all of that prompted the French legislator to restrict this right to publish, taking into account respect for the law on the protection of personal data and the legal rules related to private life, which are supposed to be regulated by special regulations issued by the French State Council, making the publishing process an objective process that helps to understand the forward-looking legal orientation, and not subjective that aims to defame people. In light of this, the Digital Republic Law of 2016⁷ stressed the need to prevent the publication of any data that directly or indirectly affects the conflict's parties⁸, and to authorise the legal facts publication and arguments which supporting the

⁶ See: "Law no. 2016-1321 of October 7, 2016 for a digital Republic (1)". *Journal of the French Republic*, No. 0235 of 08.10.2016. Accessed July 1, 2023. https://www.legifrance.gouv.fr/download/file/SJ9w29KN-2wvWjcmiPwHr3B0La5rYk6ys5dm_FwTPZs=/JOE_TEXTTE.

⁷ Ibid, title II: the protection of rights in the digital society.

⁸ Such as names, occupations, work, gender, health status, family history, social security numbers,

decision, as well as information related to the substantive aspect of the judicial ruling, providing that the French Council of State would issue the implementing regulations for the practising of this law, which have not been issued until the date of writing this research. We believe that the French Council of State delay in issuing law's regulations, despite this period, is due to the results determination of the nature and privacy of these data, it is clear that the French legislator in Informatics Law and personal data Law⁹ has adopted the expanded concept of personal data, which guarantees an extensive line of legal protection (Al-Khatib 2018b).

2.1.2. *The predictive justice and commercial utility*

Talking about the economic dimension of justice may seem surprising, but the economic dimension has never been a marginal aspect in it, although it has taken a more clear approach to predictive justice due to the specificity of the latter.

2.1.2.1. The reality of the economic dimension of traditional justice

It's absolutely not right side of thinking that accessing to this huge base of "big judicial data" judicial judgments from public, would not be the subject of renewed legal investments by legal data analysts, programmers, jurists and economists, who will study and analyse these judgments with using Artificial Intelligence's logarithms, which helps to highlight predictive outputs, according to analytical and statistical data which not founding in any of the legal texts, and according to a deductive and forward-looking vision that would has its economic cost and commercial value. Here, predictive justice would become the broader field for this state of overlap between law and economics on the one hand, and law and mathematics on the other.

This predictive justice, as we explained earlier, cannot be an individual act, but rather an institutional act with a profit nature, which cancels out being the adjective for free, with the risks that might commodify justice! Actually, before talking about the danger of the idea of commodifying justice, a distinction must be made between the commodification of justice and the cost of justice (rent), the economic cost of justice and paying this cost does not mean in any way the commodification of the latter, also, a distinction must be made between the concept of the rentierization of justice and the commercialisation of it, because the first is a justified and legitimate matter, while the second, in our opinion, is an illegitimate and rejected matter.

Access to the right (justice), especially in the event of litigation, has never been for free, rather it always comes with a material cost, of which the state bears a large part of the judicial institution, and the litigants bear the other aspect related to their lawyers to access this right. Justice has its economic cost and is not free, nowadays, when this predictive justice has become the most advanced model of the concept of traditional justice, being more efficient and logical than its traditional counterpart in analysis, results and extrapolation

bank account numbers and other information.

⁹ "Law no. 78-17 of 6 January 1978 on data processing, files and freedoms". *Journal officiel de la République française*. Accessed July 1, 2023. <https://www.legifrance.gouv.fr/download/secure/file/GsJuR04zjDfr-cyXgwC5V>.

of the future, and the most rapid in determining the forward-looking future of this or that litigation, and rates of profit and loss, in our opinion, it has the right to have a competitive advantage over traditional justice (Khalil 2017).

2.1.2.2. The economic dimension in predictive justice

It's clear that the way in which this justice could be extrapolated, and the results that it could be reached, makes its commercial outcomes justified, and even required. Predictive justice is not just about publishing judgments or information, but rather analysing and detailing them and making many intersections between them according to algorithmic equations and digital devices that work with artificial intelligence by a group of experts in many fields of humanities, law, psychology, mathematics, statistics, commerce, and so on, at present, in an instantaneous and detailed manner, Predictive Justice Algorithms would read and analyse nearly two million judicial rulings every second (Quantum Computing) (Diallo 2020, 3), including the most accurate details contained within these rulings for each judge, and in each case related to the subject of the dispute (legal case), which in no way could be an individual-human action, but rather a collective participatory process between humans and the robot (Predictive Justice Algorithms), which is translated into the result of algorithmic programs that require the cross-fertilisation of multiple experiences and professions, which translates their success into their excellence and efficiency in their transparency. Thus, it is a legal process with a continuous commercial cost, which cannot be carried out by individuals, but rather carried out by legal and commercial companies specialised in the legal field.

In addition, the results of all those who deals with this justice would be a utilitarian that would valued in money, especially in commercial disputes, specifically within the scope of foreseeing (predicting) the future vision of the subject of the dispute, it is a justice that shortens time with the age of the present according to the vision of the past, with the assumption of a probabilistic that reaches the limit of reliability in resolving the dispute, through a profitable process that deals with the purchase of the future time at the price of the present, in accordance of the French famous principle "A losing reconciliation is better than a winning prosecution"¹⁰, that's what makes the results obtained have a financial cost for those working in this field, programmers, lawyers, and even judges, and of financial value for the beneficiaries of these results, especially, lawyers and judges, and litigants¹¹,

¹⁰ In a process principle, the assumed kind of legal behaviour that represents application of this French principle "Mieux vaut un mauvais arrangement qu'un procès gagné" is to describe what occurs in what order in a particular situation. For example, assuming that there is a legal dispute between two parties about the amount of compensation, then the lack of Predictive Justice, which leads to the parties not being aware of the possibilities of success and failure in the lawsuit, will be a motivating factor to proceed with the lawsuit despite the potential risks in the percentage margins of profit and loss and the economic costs that may arise as a result of this lawsuit, as we are proceeding with unknown path. On the other hand, the existence of Predictive Justice for the same dispute with tangible weighting indicators for the percentages of profit and loss accounts with potential economic costs due to the nature of the lawsuit, its duration, the size of economic inflation, the direct and indirect expenses of the lawsuit and its side effects, all of these factors will be a strong motive to proceed with reconciliation and settlement instead of Resorting to judicial settlement, whereby each party will make concessions according to the size of its own weighting criteria to reach a consensual agreement between the two parties.

¹¹ It is no secret that insurance companies are among the first companies which used predictive concepts of benefits and risks in calculating the legal and economic costs of their work, including those related to legal litigation with their customers between the costs of a negotiated solution and a judicial solution. Today, it uses the predictive work's outputs to a large extent in its various fields.

and all of that what makes the characteristic of profitability or rentierism in this justice is justified and acceptable.

As soon as this justice moves from a justifiable rentier value dimension to an illegitimate commercial utilitarian dimension, within what can be called the commodification of justice, it is the matter that must be paid attention to and work to prevent, as it represents the reality of the law's escape from the field of justice to the field of economy and business, excluding it from its moral dimension into a utilitarian dimension. So that justice becomes subject to economic and profitability calculations, in the market or even the general trends prevailing in a particular social trend, making it closer to the needs of the market than to the needs of justice. Knowing that this should not discourage the importance and usefulness of this justice, and the right to demand financial compensation for its results, here, the responsibility lies on the official supervisions bodies in the state to ensure the transparency of the work of these judicial systems (Delacroix 2018), and that they do not lack professional integrity, which requires care to ensure the transparency and reliability of the programs on which this justice operates, and a sense of responsibility for those dealing with these programs and the results it reaches, and this official supervisions bodies also have to ensure the credibility and objectivity of these programs, especially the knowledge of the professional secret or the algorithm in which they depend on in their analysis and the construction of results, which makes the presence of the state as a guarantor for this harmony between legitimate economic benefits and legal transparency an inevitable necessity.

Actually, this apprehension from predictive justice within that hypothesis, especially in the French judicial system, brings us back to the same critical debate that has characterised the Latin school in its apprehensive reading to the relationship between economics and law, unlike the case for the nature of this relationship in the Anglo-Saxon school. This is because the idea of the link between private benefits and the law, and that what is good for the economy is good for the law, is an idea that French jurists often reserve, unlike their British counterparts, who assert that the purpose of this justice is to reach "Smarter Justice" and more "Smart profitability", and that the inescapable link between the economy and the law within this hypothesis is inevitable signification and existence.

2.2. Remoulding the judicial institution

The wide digital spread of this huge jurisprudential base, coinciding with this amount of digital predictive devoting to the vision and role of the judiciary as one of the decisive factors in resolving the conflict, according to a statistical frequency based on the philosophy of the Anglo-Saxon philosophy, it is feared that it will redraw (remould) the traditional roles of the sources of the legal base, especially with regard to the jurisprudence in the traditional French judicial system, whether at the national level, by giving priority to the number over the fact, or at the comparative level, by giving priority to the doctrine of the Anglo-Saxon school of discretionary philosophy over the doctrine of the Latin school of textual philosophy.

2.2.1. At the national level (the priority of the digital over the event)

This openness and access to judicial information as the new concept of justice, the most feared of which leads to the primacy of the digital over the fact in determining the final position of the potential or achieved adversity, which necessarily leads to making

this justice a digital justice instead of being a legal justice, in which the judge fears that he might contradict the digital, not the truth, which leads to the digitisation of justice firstly, and the standardisation of judicial work secondly.

2.2.1.1. Digitising predictive justice

Basing on the number, opponents of predictive justice fear that this justice will digitise the work of the judicial institution, so that judicial work would become a digital phenomenon rather than an intellectual one, negatively affecting on the judicial work system, this requires exposure to the idea of digitising justice as seen by opponents of this justice, before talking about the forms of fear that these opponents see as a threat to the traditional justice.

2.2.1.1.1. The predictive justice idea

“Predictive justice is fixing the future by seeing the past according to the concept of the present” (Rouvière 2018). Within this analytical summary, those who concerned about the idea of predictive justice are trying to establish their obsessions towards this justice, which they believe it will perpetuate the stereotyped image of the concept of digital justice and the cloned judge according to the culture of herd justice, so that the present becomes the repeated future of the past, where they see that the concept of the (prophétie auto-réalisatrice) self-fulfilling prediction (prophecy) will return us to the same results, as long as we will continue to judge by the same standards, and thus the number will become the title of justice, and justice will repeat itself in the framework of amplifying the present, and we will become in an endless present that mixes the past, present and future in its sanctity. This is because the statistical equation will make the difference between the past and the future almost non-existent, as it says that the present would form itself by what the past was and what the future will be like, and since the equations are as one input and one algorithmic processor, the results will be a repetition of a stable state or an extended present, and there is no contrary result, all results are going to repeat what was before, and the results that would make the issue of the credibility of these numbers a very serious issue, especially when they (results) express an unrealistic numerical majority, as if we were in front of a legal case in which three court rulings deal with the issue at a rate of two to three, would the majority of the two constitute (court rulings) reflect the majority of the judicial body, or when we are in front of a single judicial ruling for an emerging situation (case), with a numbered majority representing unanimity, are we in front of a jurisprudential consensus. Within the large database, the number of simple cases may take high survey indicators, although their frequency or reference is very low.

2.2.1.1.2. The predictive justice obsessions

In light of foregoing predictive justice explanation, those who concerned about this recurrent digital justice do not hide their fear of two issues that stand out within this digitised justice: *the first* relates to the ownership of this justice, and *the second* is related to the ethics of this justice. It is clear that the results that predictive justice gives us are a summary of a set of data reached by these digital processors via analysing a large set of legal (judicial)

data according to programs that depend on the language of algorithms, through reading and analysing thousands of documents in a detailed and accurate manner, this process which the judge would issue his verdict on, even though he has not read, and will not be able to read and analyse all these documents during this period of time which is not in the scope of the human capability to do, in which those concerned about this justice find a justified obsessions from digitising justice, especially since the judge rules what he has not read and he did not see. This dilemma has made the issue of reliability of software issues related to this intelligence very important, as how could the judge who did not read (Big Judicial Data) among these thousands of documents and judgements, there will necessarily be judgements that he knows and judgement that he definitely does not know, but the software already analysed them, and the judgement might be issued relying on it completely or partly.

Within the framework of the ethics of justice¹², those who fear this justice say that these systems will be used to mould public opinion towards a specific issue rather than achieving the desired justice in it or even fixing the stereotype, so that the person (people) do not have a second life far from the past, what makes these indicators incorrect, despite their absolute repetition in the concept of the digital system, being the title of truth, what raises a more important issue for them is the ability to reduce ostensibly misleading digital legal outcomes, as they were based on biased or erroneous human analysis, those who enter this information in all cases are based on their inclinations and affiliations that may be declared or not, especially in cases related to gender, discrimination, some criminal cases, and others, and even religious considerations or those related to national origin or geographical origin, not to mention the current societal trends related to extremism or even the position on some political or criminal issues, or even financial policies in general, thus, judges are not the real controllers of the law, but rather the programmers of these programs according to their inclinations and whims, their political, social and cultural backgrounds, etc.

Therefore, what required are the necessitates of granting those who working in the legal field access to digital content to ensure its objectivity in order to ascertain there consequences, at the same time this information must be the subject of continuous review and scrutiny, therefore, they stress the need to develop a legal charter (regulation) (Al-Khatib 2018a) dealing with determining the ethics of the use of artificial intelligence in French judicial systems, and fully homogeneous with the European Charter for the Ethics of the Use of Artificial Intelligence in Judicial Systems of 2018 (Aletras et al. 2016), which defined the five main criteria for the validity of the use of these algorithms in the field of justice (Kay 2017), which in turn included eight principles that must be the respected by processors of these algorithms, stressing that they must respect basic rights, respect the principles of non-discrimination, respect the principles of quality and security, respect the principles of transparency, impartiality and intellectual integrity, and respect the principle of access and user right to data-auditing (Bayamlioglu, Leenes 2018, 307).

¹² Human qualitative analysis of the legal elements precedes the numerical quantitative analysis of these elements leading to the weighted outcomes of this justice. Within this hypothesis, human intervention is inevitable and inevitable, which makes the analysis of human facts and knowledge of their legal and objective privacy, and the dimensions of personal impressions and cognitive subconsciousness about a social concept or a public or private life experience, and the results would app-earn either correct or misleading, according to aforementioned features.

2.2.1.2. Profiling predictive justice

Dependence on the digital in this justice, and the fear of exceeding it, will make the judge work within a single mental and intellectual stereotype, within the culture of the group not the individual, which is feared to model the judicial institution as a whole, as conclusion, despite its apparent potential, it is not without criticism.

2.2.1.2.1. The predictive justice apprehension

According to what psychologists confirm from the natural human tendency to repetition and tradition and fear of violation that habits, those who fear this justice claim that the judge will be inclined to rule by the opinion of the majority, which would become the result of this frequent repetition as absolute majority and then the overwhelming majority, so that the judge would find himself before a unanimous judicial case! That's what would lead to the demise of the judge's personality in the personality of the herd, moving from the judgment of the single judge, to the judgment of the single collective judges in which all judges are committed within the concept of (Jugement de moutonnier) sheepman's judgment. Thus, this prediction would become a form of reality, not prediction, Predictive Justice re-enacts and repeats itself, as it reproduces the regular recurring present of the judge, showing him the rule of most judges in the future, supporting the present through the past by ruling the future, which remains hypothetical! As a notice to a real judge in the present, the judgment of a thousands hypothetical judges in the future, based on a judicial ruling which already based on the judgment of more than a thousands real judges in the past (Leach, Paraskeva, Uzelac 2010).

2.2.1.2.2. The predictive justice honesty

If there would be an opinion on this analysis, it is the least one that could be described as exaggerated, claiming that it reduces the status of the judicial institution and judges, looking at them as like they are a group of people who rule without legal frameworks and constants, claiming all of that as like the men of this judicial institution have never been in such complex cases and successfully overcome them, so that today they would fear from huge databases or the expected results of predictive justice, bringing back time to the early stages of the formation of the French Court of Cassation and the hostile attitude towards the concept of judicial precedent, fearing that the court of law would model the court of jurisdiction (Keown 1980), it is like as we judge tomorrow's judges in the sense of today's judges, without being sure that tomorrow's judges would be able to adapt to these changes, the judges of tomorrow would have no reason to feel threatened by this newcomer, they would be smart and intelligent and they will be able to make decisions (Brester, Iurishina 2018) that they deem necessary, even if they differ from ordinary decisions, this justice would be enough to motivate them in a clear way to adopt court rulings that are a reflection of these outcomes (Blackman, Aft, Carpenter 2012, 137), the role of predictive justice in providing solutions would not in any way mean that the judge will take it in its entirety despite its moral strength.

The Predictive Justice does not judge, but rather provides indicators that help clarify the solution, in one way or another we would be in front of a digital expert who helps the judge in formulating his judgment, and just as like the judge used to rule according to the

judges' collective thought, which he obtains by traditional means until today, he will possess it today in a more accurate and detailed manner through these combinations between law and technology. Thus, there would not be the (*Jugement de moutonnier*) sheepman's judgment, but the Case Judges (*Juges de l'affaire*), because the privacy of the judicial judgment and its individual subject nature of the case and case parties would not be affected in the age of technology (Brynjolfsson, McAfee 2014), but on the contrary, it would be better preserved and more privately, as one of the constitutional rights of the individual.

The Predictive Justice determines the general direction, especially for the judges of the case-jurisdiction, without imposing a specific trend or a certain majority, nor does it would ignore a specific minority. In other words, this justice will help all judges to know the impression of the general judicial trend on a particular case, which increases, enhances or weakens legal certainty about it, which would inevitably help judge in the formation of case-jurisdiction judgment, in addition to the legal-jurisdiction of the Court of Cassation, this would help to create a jurisprudence of multiple jurisdictions, degrees, and regions, and the options would inevitably be many and very diverse according to the algorithmic indications that the developers of this justice will work to invent and reinvent them (Faisal 2015).

2.2.2. At the comparative level (the marginalisation of the Latin identity of French Law)

The Predictive Justice generally is the ability to know the fate of the legal case through a set of stored legal (judicial) data, especially due-diligence works (Villasenor, Foggo 2019), according to a digital processor that works in the manner of artificial intelligence, which is one of the outputs of the modern digital revolution that is fully controlled by the American, and which is governed by the legal mentality of the Anglo-Saxon school (discretionary philosophy), which threatens the Latin identity of French law, whether in terms of the canonical dimension of French civil law as a law governed by text rather than due-diligence, or in terms of the philosophical and intellectual construction of this law which governed by Latin philosophy, not Anglo-Saxon.

2.2.2.1. The predictive justice and the principle of judicial precedent

Basing on the due-diligence (interpretational) base in its law and case-jurisdiction judiciaries dimensions, this justice will devote the concept of judicial precedent in its traditional concept which based on the judiciary of the law towards the case-jurisdiction courts judiciary, on the other hand, it will create a kind of what could be called the case-jurisdiction judicial precedent for judging the case in parallel with the judiciary of the law.

2.2.2.1.1. The principle of judicial precedent and the judiciary of the law

In essence, the predictive justice revolves around the possible rule of law according to the most likely utterance of jurisprudence in the existing conflict, meaning that it gives the recipient a forward-looking dimension to the rule of law based on jurisprudence rather than a legislative text, according to the judge's frequent vision of this text. Therefore, it is justice governed by the concept of jurisprudence based on judicial precedent, not the text, here is

the essence of the disagreement between the general jurisprudential spirit that governs this justice and the spirit of judicial justice based on the text in French legislation, because this justice is the digital expression of the concept of justice according to the concept and philosophy of the Anglo-Saxon school based on the concept of judicial precedent, and it is not hidden from the people of law the nature of the radical disagreement between the system of philosophical thought of the Latin school based on codification, and the Anglo-Saxon school based on judicial precedents, which does not hesitate to declare by many French jurisprudence, considering that this predictive justice is Anglo-Saxon justice, not Latin.

Latin justice is not based on reading previous judicial rulings and eliciting solutions from them, but rather on respecting and implementing legislation, it is a predictive justice that rules in the spirit of the text, not the judiciary, the judge, within this legislation, is the mouth that speaks for the legislation, the judge must pronounce justice, without having the ability to issue general or regulatory rulings in the cases submitted to him, therefore, he may not put his judgments in the form of regulations, nor may he refrain from realising the right, or delay without reason in issuing a judgment, that's mean if the judge had to rule, he would not be allowed to legislate, this French specificity is under consideration in predictive justice, which bases judicial rulings on jurisprudence according to the concept of judicial precedent, not text! It says what the ruling of the judiciary or the ruling approved by the judicial institution on a particular subject, and it does not say what the legislation says on this issue, which will change the rules of the game in judicial justice in French legislation that is based on the text and not the jurisprudence, as the due-diligence (interpretational) (Weber 2018) would become the source of this justice, not the text, so that the judge finds himself imprisoned by previous judicial rulings, embarrassed to depart from the general majority in the stable judicial approach to the dispute. The predictive justice analyses jurisprudence, as the title of truth, and re-establishes, through its results, the legal status of this justice as an expression of this truth through these findings.

2.2.2.1.2. The principle of judicial precedent and the case-jurisdiction judiciary

In addition, the process of the predictive analysis will not only address the rulings of the Court of Cassation, but also the thousands of rulings issued by the trial courts, which will restructure the concept of jurisprudence in French legislation, from a qualitative hierarchical dimension to a quantitative hierarchical dimension (Pound 1908). Within this open reference base of thousands of judicial rulings issued by the judiciary of the matter courts, which is constantly increasing annually, this jurisprudence will be restructured through quantitative and qualitative analysis; The descriptive and evaluative of the positions of thousands of judges and the judicial rulings issued by them, which will make the judicial weight in the French legal system more present than before, so that the jurisprudence would become more in-depth in these analyses and evidence, drifting, albeit indirectly, into the corridors of the jurisprudential analysis, which will make this for the latter controlling, albeit in a different way, directly on jurisprudence, so that the French legal system would become a system closer to the school of judicial precedent than to the school of legal text, with what this matter carries from the distortion of the legal identity of the French legal system as a legal system based on codification rather than jurisprudence.

In other words, this predictive justice will map the third path for the concept of discretionary law between its Latin origin in the civil law “Droit Civil” based on “La Codification” and its Anglo-Saxon counterpart “Common Law” based on the general judicial precedent “Case Law” to the Standard Jurisprudential School “Droit Isométrique” which processes by the Digital Scale Indicators “Indicateurs de Probabilité Numériques” (Polisano 2018). A system that could be identified through the analysis of hundreds of thousands of judicial rulings, which would make it possible to determine the general orientation of these judges, which would constitute a general indicator with significant moral magnitude, by strengthening the concept of participatory and complementarity in thought and collective analysis in a way that ensures the integration of this collective understanding as well as the law specialisation which based on a standard legal system that measures the various indicators and evidence according to intelligent and objective standard analytical indicators.

2.2.2.2. The predictive justice and the Anglo-Saxon intellectual construction of law

The justice is necessarily a reflection of the legislative experience of the legal system to which it belongs, the justice is the conceptual reflection of the application of the legal system within a specific legal system, it is not just texts and rulings or even numbers and equations, but rather it is a thought and philosophy that were formed and moulded through the cultural and societal heritage during the extended periods of time.

Within this understanding, the predictive justice coming from the Anglo-Saxon school — the most prominent competitor to the Latin school in thought and philosophy, and become a real threat to this school in the international legal system in a globalised legal world¹³, the extent of the openness of the European West to the American West.

The predictive justice in its concept, philosophy, legal spirit and unread sentimental principles “Logarithmic Programs” is a Western product that reflects the philosophy and understanding of law within the Anglo-Saxon school according to the Common Law school (Magrith 1961), meaning that this justice would be measured according to indicators and programs based on the nature of its own legal understanding, which would weaken the competitive aspect and the legal presence of the French legal system in the international sphere, which is originally in a backward position from its British counterpart, and all of that would complicate the task for the French legislator, since we will not be faced with a mere invasion of numbers and mathematical equations, but an invasion of concepts and terms.

3. Conclusions and future work

The research dealt with an in-depth legal study, the reality of judicial justice in the digital age according to the concept of predictive justice in Anglo-Saxon and Latin jurisprudence, indicating the nature of this justice, and the challenges which raises in the

¹³ This challenge in the concept of big data and its consequences, including predictive justice, is a reality that is growing more and more in many Western countries, especially the United States of America, Canada and Britain, as well as in China and South Korea, and maintaining French privacy in this area will not be easy, in an era where all sciences overlap with the economy that puts pressure on various companies, including those working in the field of law, these technical aspects become one of the fiercest competitive factors in achieving objective, reliable, fast and inexpensive legal justice. It is the fact that makes the law.

concept of traditional justice, and how to overcome these challenges and turn them into the opportunities that could be used to advance the concept and system of justice. The research sheds light on many of the articulating points in the concept of this justice, showing the general features of the state of anxiety and anticipation that prevails in this justice's concept in the French legal environment, between the concept of glass justice which focuses on the form of proposing justice rather than on its content, which makes it non-cognitive justice, and digital computation justice, which bases on numerical algorithm equations, making judge, litigant and lawyer trapping in numbers, and capitalist justice, which does not aim to achieve justice as much as increasing profits, and does not take into account the privacy and nature of the cognitive hierarchy of judicial rulings, and seeks to overthrow symbols and raise others via a masterplan to built justice on illegal cognition.

The research showed that the use of the term: *The Predictive Justice*, although it is the most widespread term and the most expressive of this new form of digital and legal cooperation, at the present time lacks full credibility, especially when this justice is presented within the concept and function as an alternative to traditional justice. This is because this justice is not like that, neither in the digital sense nor in the traditional sense, but rather it is an indicator of justice. The analytical results provided by these algorithms, although they can be considered as a summary of reliable artificial intelligence capable of proposing solutions, are not the abstracts of artificial intelligence of an innovator or perceptive person who is able to provide a solution or judgment! What makes the human presence in this justice an indispensable necessity. Therefore, any talk of predictive justice that is able to replace the current realistic justice is purely a perception that is not possible at the present time. The algorithm is not a substitute for legal thinking, but rather a new method of legal thinking.

Furthermore, the research confirmed that the current human, with his modest human capabilities and faculties, is no longer able to keep up with this digital revolution, which imposes a state of integration in the judicial work between machines and humans. The legal-man alone would not be able to keep up with this digital revolution, just as machines alone will not be capable of that, although the final decision in this justice remains a human decision par excellence. Indicating that this great enthusiasm for this justice brings us back to the stereotype of the concept of impartial, blindfolded justice that carries a scales that is the credibility of justice. This perception of this abstract justice devoid of any feelings or sensations, is the perception that has always fondled in our imagination the mental image of justice that is self-fulfilling for itself, away from the state and its administrative and judicial apparatus, according to objective equations and a mechanism that is not biased towards feelings or emotions, based on the idea of legal justice abstract from the idea of the character represented by the judge, hoping to achieve more impartiality according to the concept of human abstraction. But is that the desired justice?! Undoubtedly, the research proved that justice devoid of the human being is an unrealistic or fair justice. Justice in its thought and composition is human in nature, not digital in existence.

Finally, the research recommended the need to deal with all these concerns raised by predictive justice as challenges rather than obstacles, in order to bypass what is known in French jurisprudence as the black box syndrome: "Syndrome de la boîte noire". The fact that our current sense of helplessness is more a natural result of our lack of understanding of the matter than the impossibility of the matter! The fact that we are still talking about this justice, and that even in the Western European system, including the French one, we

are facing this justice as receivers of it more than as makers! The idea was born, grew, and spread in American thought within the Anglo-Saxon system. Therefore, and in the light of understanding the background of legal competition between this school and its Latin counterpart, it is not surprising that this reservation about it reaches the level of exaggerated suspicion. As for the fear that *Quantitative Justice* will prevail over *Qualitative Justice* in the relationship between law and mathematics, this brings us back to the same previous fear of the victory of *Utilitarian Justice* over *Value-active Justice* in the relationship between law and the economy, which cannot be a disincentive for us to proceed with this new digital approach. So between the technophobe and the fondness for it, we have to balance things and try as much as possible to benefit from this coming in the legal sciences, which will occupy its deserved place within it, whether we agree to that or not, so our success in this matter is in the measure of our reconciliation between our fear and our audacity, just as our ability to adapt and accurately understand this newcomer, as well as coexist with it, with the highest possible benefits, and the least possible losses. The justice is not an option, but a constitutional right that must be respected. And justice that does not take advantage of all the possibilities available to it to ensure access to this right is not justice worthy of consideration. Accordingly, we Iraqi and Kurdistan criminal researchers, supporters of the Latin school, must prepare well for this newcomer, trying as much as possible to benefit from it and avoid its shortcomings. Today, the issue is no longer being discussed as to whether or not this justice exists, but rather about the ability to adapt to it, and how to transform it from a challenge into an opportunity, and Upgrading the Iraqi criminal justice system, which is soon expected to be enacted by the Iraqi Council of Representatives (parliament).

We could summarise the conclusion in the following results:

— through this research, it becomes clear to us that the use of digital technology (algorithm) in criminal justice represents a preliminary stage in the contribution of technological development to the process of modernising the values of justice in general, and therefore the use of this technology in the judicial decision-making process is not final and inevitable, on the one hand, and on the other hand, the advocates of the justice do not hesitate to preserve the traditional judicial values in their known contexts, and this is what most likely led to the use of this technology in the pre-trial stage more than in the trial stage;

— within the preliminary stage, the research recommends legal guarantees with regards to the protection of personal data of natural persons partly or fully processed electronically by any holder, controller or processor, in this regard, the Iraqi federal and Kurdistan legislators could have advantage from the Egyptian legislative approach represented by the Personal Data Protection Law No. 151 of 2020¹⁴ and its executive regulations;

— the research recommends more communication between legal specialists from the judicial institutions, and specialists (programmers) in the field of artificial intelligence, in order to address the concerns of the advocates of the justice regarding the use of digital technology (algorithm), especially after the emergence of the Artificial Neural Network (ANN);

— in addition to the auxiliary role of this technology for the judge for issuing a criminal judgment, but the research recommend it should be accompanied by caution and deep scrutiny;

¹⁴ See: Egyptian Official Gazette (28) bis (e). July 15, 2020. Accessed July 1, 2023. <https://egypls.com/wp-content/uploads/2020/07/28-M-E.pdf>.

— the process of feeding data (in-coming judicial data) entering into the digital technology system (algorithm) by the human element and the careful supervision on them by the state, the research is highly recommend it, as a very important work to achieve accuracy and impartial results (out-coming judicial data).

Therefore, in conjunction with the launch of the new Iraqi Penal Code draft, submitted by the Iraqi Supreme Judicial Council by the Presidency of the Federal Republic of Iraq to the Iraqi Council of Representatives last August (August 2021)¹⁵, we recommend the necessity of including the aforementioned project the mechanism for using the principles of the predictive justice, which could be represented by enacting digital technology (algorithm) in the field of Iraqi Criminal Justice, and we believe all of that could be done by strengthening the technological capabilities of judges by coupling judicial systems with professional organisations which specialised in digital technology (algorithm) via universities technical-scientific conferences and techno-legal research centres, as well as encouraging achieving cooperative research between legal specialists (Academics from legal colleges and the judiciary institutions) and technology specialists (programmers in the field of artificial intelligence-AI), within the aim to build an Iraqi integrated legal-tech project in the field of the predictive justice (Algorithmic Criminology).

References

- Aletras, Nikolaos, Dimitrios Tsarapatsanis, Daniel Preotiuc-Pietro, Vasileios Lamos. 2016. "Predicting judicial decisions of the European Court of Human Rights: A natural language processing perspective". *Peer Journal Computer Science* 2: e93. Accessed June 29, 2023. <https://doi.org/10.7717/peerj-cs.93>
- Al-Khatib, Muhammad Irfan. 2018a. "Robots Legal Center: Personality and responsibility. A Comparative study: A reading of the European Rules for the Civil Law of Robots 2017". *Mjlt klyt alqanwn alkwytyt alalmyt* 6: 97–136. Accessed June 29, 2023. <https://journal.kilaw.edu.kw/wp-content/uploads/2019/01/97-136.pdf>. (In Arabic)
- Al-Khatib, Muhammad Irfan. 2018b. "Guarantees of the right in the digital age: From changing concept to changing protection. A reading of the European and French legislative position and a projection on the Kuwaiti legislative position". *Mjlt klyt alqanwn alkwytyt alalmyt* 6: 251–324. Accessed June 29, 2023. <https://journal.kilaw.edu.kw/wp-content/uploads/2018/12/251-324-Arfan-alkteeb-2.pdf>. (In Arabic)
- Bayamlıoğlu, Emre, Ronald Leenes. 2018. "The 'rule of law' implications of data-driven decision-making: A techno-regulatory perspective". *Law, Innovation and Technology* 10 (2): 295–313. Accessed June 29, 2023. <https://www.tandfonline.com/doi/epdf/10.1080/17579961.2018.1527475?needAccess=true&role=button>.
- Blackman, Josh, Adam Aft, Corey Carpenter. 2012. "Fantasy SCOTUS: Crowdsourcing a Prediction Market for the Supreme Court". *Northwestern Journal of Technology & Intellectual Property* 10 (3). Accessed June 29, 2023. <https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1160&context=njtip>.
- Brester, Aleksandr A., Elena A. Jurishina. 2018. "Criteria underlying decision making on punishment: Law enforcement practice empirical analysis". *Vestnik Sankt-Peterburgskogo universiteta. Pravo* 9 (4): 535–553. Accessed June 29, 2023. <https://doi.org/10.21638/spbu14.2018.406> (In Russian)
- Brynjolfsson, Erik, Andrew McAfee. 2014. "The second machine age: Work, progress, and prosperity in a time of brilliant technologies". New York, London, W. W. Norton & Company. Accessed June 29, 2023. https://edisciplinas.usp.br/pluginfile.php/4312922/mod_resource/content/2/Erik%20-%20The%20Second%20Machine%20Age.pdf.

¹⁵ See the statement of the Iraqi Presidency in the context of cooperation between the Presidency of the Federal Republic of Iraq and the Iraqi Supreme Judicial Council in the field of legislation laws enacting (the New Draft Penal Code). Accessed July 1, 2023. <https://www.presidency.iq/EN/Details.aspx?ID=3385>.

- Delacroix, Sylvie. 2018. "Computer systems fit for the legal profession?" *Legal Ethics* 21 (2): 119–135. Accessed June 30, 2023. <https://doi.org/10.1080/1460728x.2018.1551702>
- Diallo, Ibrahima. 2020. "Les enjeux de la justice prédictive". *HAL open science*. Accessed July 1, 2023, <https://hal.science/hal-02563645/document>.
- Faisal, Mohammed Al-Buhairi. 2015. *The Impact of the Modern Scientific Renaissance on Legal Thought. A Study in the Philosophy of Law*. Egypt, Markaz al-Dirāsāt al-‘Arabiyah lil-Nashr wa-al-Tawzī‘. Accessed June 30, 2023. <https://platform.almanhal.com/Reader/Book/56334>. (In Arabic)
- Haller, Stephan. 2010. "The things in the Internet of things". *RFID Journal*. Accessed June 30, 2023. https://www.researchgate.net/publication/228488111_The_Things_in_the_Internet_of_Things.
- Hyde, Aurore. 2019. "La justice prédictive: Enjeux et perspectives". *HAL open science*. Accessed July 1, 2023. <https://hal.science/hal-02149092/document>.
- Katz, Daniel M., Michael J. Bommarito II, Josh Blackman. 2014. "Predicting the behavior of the Supreme Court of the United States: A general approach". *Cornell University*. Accessed June 30, 2023. <https://arxiv.org/pdf/1407.6333.pdf>.
- Kay, Jonathan. 2017. "How do you regulate a self-improving algorithm?" *The Atlantic*. Accessed June 30, 2023. <https://www.theatlantic.com/technology/archive/2017/10/algorithms-future-of-health-care/543825>.
- Keown, Robert. 1980. "Mathematical models for legal prediction". *Computer Law Journal* 2 (1). Accessed June 30, 2023. <https://repository.law.uic.edu/jitpl/vol2/iss1/29>.
- Khalil, Ahmed. 2017. "Judicial announcement in the electronic way, its cases and sometimes illogicality". *The twenty-fifth international conference of the College of Law, Abu Dhabi*. (In Arabic)
- Kischel, Uwe, Andrew Hammel, eds. 2019. "The Context of Common Law". *Comparative Law*, 227–358. Oxford, Oxford University Press. <https://doi.org/10.1093/oso/9780198791355.003.0005>.
- Leach, Philip, Costas Paraskeva, Gordana Uzelac. 2010. "Human rights fact-finding. The European Court of Human Rights at a crossroads". *Netherlands Quarterly of Human Rights* 28 (1): 41–77. Accessed June 30, 2023. <https://doi.org/10.1177/016934411002800103>
- Magrith, James L. 1961. "The Common Law tradition: Deciding appeals by Karl N. Llewellyn". *Indiana Law Journal* 36 (4). Accessed June 30, 2023. <https://www.repository.law.indiana.edu/ilj/vol36/iss4/9>.
- Manyika, James, Michael Chui. 2013. "Digital era brings hyperscale challenges". *The Financial Times*. Accessed June 30, 2023. <https://www.ft.com/content/f30051b2-1e36-11e4-bb68-00144feabdc0>.
- Polisano, Kevin. 2018. *Cours de Statistiques niveau L1-L2*. Accessed July 1, 2023. https://hal.science/cel-01787365/file/Cours_Statistiques_Polisano.pdf.
- Pound, Roscoe. 1908. "Mechanical jurisprudence". *Columbia Law Review* 8 (8): 605–623. Accessed June 30, 2023. [http://www.minnesotalegalhistoryproject.org/assets/Pound-Mech.J.\(1908\)-MM.pdf](http://www.minnesotalegalhistoryproject.org/assets/Pound-Mech.J.(1908)-MM.pdf).
- Razmetaeva, Yulia, Sergiy Razmetaev. 2021. "Justice in the digital age: Technological solutions, hidden threats and enticing opportunities". *Access to Justice in Eastern Europe* 2 (10): 104–117. Accessed June 30, 2023. <https://doi.org/10.33327/AJEE-18-4.2-a000061>
- Rouvière, Frédéric. 2018. "Le raisonnement par algorithmes: le fantôme du juge-robot". *HAL open science*. Accessed July 1, 2023. <https://shs.hal.science/halshs-02250220>.
- Segal, Jeffrey. 1984. "Predicting Supreme Court cases probabilistically: The search and seizure cases, 1962–1981". *American Political Science Review* 78 (4): 891–900. Accessed June 30, 2023. <https://www.jstor.org/stable/1955796>.
- Villasenor, John, Virginia Foggo. 2019. "Algorithms and sentencing: What does due process require?" *Brookings*. Accessed June 30, 2023. <https://www.brookings.edu/articles/algorithms-and-sentencing-what-does-due-process-require>.
- Weber, Stephanie. 2018. "How artificial intelligence is transforming the criminal justice system". *Thoughtworks*. Accessed June 30, 2023. <https://www.thoughtworks.com/insights/blog/how-artificial-intelligence-transforming-criminal-justice-system>.

Received: October 8, 2022

Accepted: July 31, 2023

Author's information:

Fahil Abdulbasit A. Abdulkareem — PhD in Law; fahil.abdulbasit@dpu.edu.krd