Smart Administration Applications In Turkish Administrative Law

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Abstract
Digitalization is one of the fastest-growing developments in the last century. As in many fields, the effects of digitalization in law are great. However, when the developments in the world are followed; it is also a fact that digitalization accelerates the transition to artificial intelligence. Therefore, digitalization turns into "smart technologies" in many fields.

In Turkey, the organization of the Presidency Digital Transformation Office (PDTO), which was established together with the Presidential Government System in 2018, with separate public legal personality, is a harbinger of predictions in this area. *The National Artificial Intelligence Strategy* published by PDTO will be examined in terms of administrative law. The need for legislation regarding the use of artificial intelligence in administrative law and the steps towards changes in current norms will be determined.

On the other hand, with artificial intelligence-supported administrative activities (especially public service and law enforcement activities), the concept of public servant will undergo a radical change. The aim of this study is to bring the investigations, predictions and suggestions about the transformation of electronic administration (e-administration) into smart administration (s-administration) in the near future, based on the PDTO *National Artificial Intelligence Strategy* and Information-Data Security Circular, Information-Data Security Guide.

Keywords: artificial intelligence, smart administration, Digital Transformation Office, electronic administration, data security

INTRODUCTION

The concept of digitalization, which can be considered the first stage of the development of the concept of artificial intelligence; it has given birth to a new concept with the transformation of many works and processes into "electronic". Good management of the process of digitalization and artificial intelligence is essential for Turkey. In this context; the priority is «to complete the legal process regarding artificial intelligence».

In other words, the preparation of legislation in this area will help prevent future legal issues related to artificial intelligence from the very beginning. In terms of Turkish Law, the concepts of information technologies, electronic services, electronic government, smart public services, and digitalization in the judiciary appear more and more every day. The National Judicial Network Project (NJNP), e-government, e-justice (e-trial, Lawyer Portal) applications should be considered as the steps of the transition to artificial intelligence in law. When the subject is considered from the point of view of administrative law; it is clear that steps have been taken regarding the use of artificial intelligence by public institutions and organizations.

Along with the issues included in the *PDTO National Artificial Intelligence Strategy*; the need for precautions regarding information and data security is also noteworthy. In this sense, the "Presidential Information and Communication Security Circular" dated 6th July 2019[1] and the

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[1] *Turkish Official Gazette (O.G.),* Date: 06th July 2019, Number: 30823.

"PDTO Information and Communication Security Guide" dated July 2020[2] make it easier for us to explain the developments in administrative law-artificial intelligence. In this context, PDTO *National Artificial Intelligence Strategy* is an important milestone in Turkish Administrative Law from electronic administration (e-administration) to smart administration (s-administration). Today, when smart technologies, "artificial intelligence", "cloud", "internet of things", "data mining", "digital government", "blockchain" are discussed, the dynamic feature of administrative law also makes itself felt. In other words, the concept of administration in the near future; it will evolve into the concepts of "smart administration", "intelligent administrative action","intelligent administrative activity".

The digitalization of the administration has gone one step further with the inclusion of electronic administrative transactions within electronic administrative activities. In this sense, "e-administration" is the second major step in the digitalization of administration. "E-government" applications in Turkey are typical examples of the digitalization of the administration. Today, the adequacy of e-government is a debatable issue; however, in our opinion, supporting e-government with artificial intelligence will lead to the emergence of artificial intelligence supported public services.
This issue will affect not only the administrative law institutions, but also the administrative jurisdiction where the disputes in this field are resolved. While examining the concept of smart administration in the study, issues that may affect the administrative judiciary will also be mentioned, as far as it is relevant.

I. THE CONCEPT OF DIGITALIZATION
In a narrow sense, digitalization is the method of using, transmitting, increasing, storing or transferring information through technological devices. In other words, digitalization is the integration of information with technology. However the digitalization is conflated with "servitization" as a business model [3].

A. The Question of Whether Digitalization Is a Revolution
Digitalization includes the display of information with the sequence of 0's and 1's. Today the "Digital Revolution" is accepted as a new revolution that emerged after the Industrial Revolution. The need for digitalization is related to the prevention of time and labor losses that occur with the increase in the number of people. Because with digitalization, positive results such as speed, service quality, and reduction of personal errors have been seen. Their continuity is essential.
On the other hand, it is inevitable to experience negativities that may occur on individuals or society with digitalization. In this context, after the Industrial Revolution, on the World; it can be said that the 'Digital Revolution' has occurred. The process in question continues through artificial intelligence. There are writers who call this process '4th Industrial Revolution' [4]. The results of the digital revolution; interconnection of information and information networks, internet of things, autonomous systems (smart vehicles, smart devices), robots, artificial intelligence. The issues related to artificial intelligence in the last period of the digital revolution will be examined.

B. Other Technologies Resulting From Digitalization
Digitalization can be considered as the first step towards artificial intelligence and other intelligent technologies. When expressed from this point of view, one of the most important results of digitalization is the transition to smart technologies.

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[2] https://cbddo.gov.tr/en/ Access date: 29.10.2022.
[3] MarryAnne M. Gobble, "Digitalization, Digitization and Innovation," *Reasearch-Technology Management Taylor-Francis Online* (July-August 2018): 56.
https://www.tandfonline.com/doi/citedby/10.1080/08956308.2018.1471280?scroll=top&needAccess=true&role=tab&aria-labelledby=cit
 https://doi.org/10.1080/08956308.2018.1471280
[4] Mutlu Kağıtcıoğlu, " Artificial Intelligence and Administrative Law (An Assessment From Today To The Future," *Journal of Hacettepe University Faculty of Law* 11 (2021): 140.

It is said that the first examples of artificial intelligence emerged with the development of encrypted communication systems during the Second World War[5]. Although there is no common definition for the concept of artificial intelligence in the 1950s, there are studies that aim to imitate natural intelligence by human-made intelligent machines. Nabiyev has defined artificial intelligence as "the ability to perform tasks related to higher mental processes such as reasoning, making sense, generalizing and learning from past experiences, which are assumed to be human-specific qualities"[6]. Artificial intelligence enables the intelligent machine to make the correct or incorrect interpretations of the data obtained through experience, quickly. On the other hand, although there are opinions[7] about whether artificial intelligence is a legal personality and whether it is accepted as an electronic personality, developments regarding the legal basis of artificial intelligence continue.

C. The Concept of Artificial Intelligence (AI) and The Need For Legislation

Artificial intelligence is a machine-based entity that has the ability to interpret, analyze, explain and reach results in order to achieve information-related goals. In this context, artificial intelligence gains the ability to analyze using algorithms. Intelligence is the computational part of the ability to achieve goals in

the World[8]. Today, artificial intelligence is in a structure that learns, speaks, judges and hears like a human. Although there is variation in its conceptual definition, artificial intelligence is also expressed as the simulation of a human-like intelligence in classical terms[9]. Artificial intelligence belongs in the history of *human intelligence[10].*

The concept of artificial intelligence was first used by John McCarthy in 1955. According to Marvin Lee Minsky, artificial intelligence is "the science of producing machines that do a job that requires human intelligence". Turkish Scientist Ordinaryus Professor Cahit Arf's "Can Machines Think and How Can They Think?" It is an obvious fact that he made his assumption in 1959. Therefore, it is a source of pride for Turkey to have an early idea in artificial intelligence research compared to many advanced countries.

There are opinions that artificial intelligence is grouped as thinking like a human, acting humanely, thinking wisely and acting wisely[11]. Artificial intelligence is the "new look" of computer technology. Artificial intelligence consists of two elements in a narrow sense:

-Machine knowledge (technical)

-Logic rules and information exchange.

The first prediction regarding this was the article "Some Speculation About Artificial Intelligence and Legal Reasoning" published in the Stanford Law Review in 1970[12]. Because it is a far-sighted article according to the year of publication, which envisages legal justification to be made with the support of artificial intelligence.

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[5] Şükran İnce, Melike Zişan Şimşek and Fatih Kaynarca, "An Evaluation Of The Legal Liability Of Artificial Intelligence And Robotics Under Turkish Legal Regulations," *GSI Articletter* 21 (2019): 29.

[6] Vasif Nabiyev, *Yapay Zekâ: İnsan-Bilgisayar Etkileşimi* (Üçüncü Baskı). Ankara: Seçkin Yayıncılık: 2016, 16.

[7] Artificial intelligence is an electronic personality. However, for the view that "in the same time period, artificial intelligence that can be produced in different varieties for many different purposes and have different levels of autonomy, a legal assessment should be made according to the autonomy levels in terms of the damages that may be caused". Erman Benli and Gayenur Şenel, "Artificial Intelligence and Tort Law," *Ankara Social Sciences University Faculty of Law Journal* 2 (2020): 309.

[8] John McCarthy, "What Is Artificial Intelligence," *Stanford University* https://www .diochnos. com/about/McCarthyWhatisAI.pdf

[9] Zafer Zeytin and Eray Gençay "Law And Artificial Intelligence: E-Person, Liability, And A Legal Applicatıon Example," Türk-Alman Üniversitesi Hukuk Fakültesi Dergisi 1 (2019): 42.

[10] Stephanie Dick, "Artificial Intelligence," *Mitpress* (2019): 4 https://doi. org/10.1162/9 9608f9 2.92fe150c

[11] Harun Pirim, "Artificial Intelligence," *JYU* 1 (1) (2006): 85.

[12] Edwina Risland, Kevin Ashley and RP Loui, "AI and Law: A Fruitful Synergy," *Artifical Intelligence* 150 (2003): 6.

Artificial intelligence is also an area that absolutely needs to be regulated by law. Problems that may be encountered in this area; it can be expressed as whether artificial intelligence is a person, the legal and criminal responsibility of artificial intelligence, whether artificial intelligence will be a party in debt relations and lawsuits, whether artificial intelligence will be a public officer in cases where artificial intelligence is used in the field of public law. It is also a matter of legal debate whether artificial intelligence has fundamental rights and freedoms.[13]

D. E-Administration And S-Administration Distinction

The electronic transformation of administrative activities, which started with e-government, continued with the transformation of e-government into "Digital Turkey Portal"[14]. The main assumption of our article is whether artificial intelligence support in the execution of administrative activities in Turkey leads to innovations in terms of conceptual rather than the content of the activities. In other words, the question of whether the transition to the concept of "smart state" or "smart administration" has been achieved by closing the e-government era, forms the basis of the article.

Equipping an administrative activity with electronic supports has changed the concepts of service beneficiary and service provider according to an opinion and accordingly[15]; people who benefit from public services have begun to be expressed as customers with the digitalization of administrative activities. However, it is not possible to fully agree with this view. Because the digitalization of services does not differentiate the legal status of those who benefit from the service. The public service is provided by the administration by the administration itself or under the close supervision and supervision of private law persons, again by using public power.

With the parallel change in the way of presentation of the administrative activity with technology, the concept of benefiting from the service, which cannot be causally connected, may cause the "citizen to be seen as a customer" with policies (such as charging a fee from the activity, redefining the activity within the scope of the new public service) that approach the provisions of private law. E-administration is the "digitalization" of administrative activities. But before the artificial intelligence stage. Can we add the digitization of administrative activities, the principle of "digitalization of service among the principles of public service" by some authors? It allowed them to ask their question.

"S-administration" is the digitalization of the administration supported by artificial intelligence. In technical terms, it is the intelligent administration that carries out the administrative activities. In other words, artificial intelligence dominates almost every area of administrative activities. Administrative activities supported by smart technologies can be delivered more efficiently and quickly as operational problems are resolved before they arise. "Smart cities, smart public services, smart administrative activities" are included in s-government. If the smart state is accepted as a top concept, smart administration is an indicator of the transformation of the state in the field of administrative law.

However, in our opinion, it is not possible to equate the smart state with the concept of the coordinator state. Because the concept of the coordinator state has weakening effects on the superior and privileged powers of the state regarding basic administrative activities[16]; smart state[17] is not related to the concept of coordinator state. smart state; it emerges with the use of digitalization, artificial intelligence and smart technologies in administrative activities undertaken by the state or which enable them to be carried out under the close supervision-supervision. The coordinating state can be used to define the status of the state in public services carried out by private legal persons under the close supervision of the administration.

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[13] John Stewart Gordon, Ausrine Pasvenskiene, "Human rights for robots? A literature review," *AI Ethics* 1, (2021), 581.

[14] Halil Yasin Tamer and Barış Övgün, ""The Digital Transformation Office in the Context of Artificial Intelligence," Journal of Ankara University Faculty of Political Sciences 75 (2020): 797.

[15] Ali Kaya and Damla Mursül, "Transformation of Civil Services as Part of The Digital Turkey Project," *Journal of Van 100th Year University Social Sciences Institute* (Special Issue-4) (2017): 2.

[16] Hüseyin Gül, "Impact of Digitization on Public Administration, Public Policy and Research in These Fields," *Journal of Legislation* 36, (2017): 5-7.

[17] Tamer and Övgün, *supra note* 14, 775.

II. LEGAL DEVELOPMENTS REGARDING ARTIFICIAL INTELLIGENCE IN THE NATIONAL AND INTERNATIONAL AREA

A. Legal Basis Of Artificial Intelligence In Various States

It can be said that international strategy documents have accelerated the studies on artificial intelligence strategy in Turkey. In this context, legal bases for artificial intelligence have begun to be established, especially in the United States, Japan[18], the European Union, China and the OECD.

Countries are divided into two in this regard:
- those who determine their investments according to artificial intelligence technology
- those who turn to artificial intelligence technologies in the second place after evaluating the investment results

Countries that realize the importance of artificial intelligence economically and strategically invest significantly in artificial intelligence-based applications. USA, China, United Kingdom, France and Germany, which are the leading countries in the field that published artificial intelligence strategies between 2016-2019; has set as priority targets to increase investments, expand application areas by making resources open, and activate capacity and workforce using artificial intelligence.

Efforts to establish a legal basis in the field of artificial intelligence in the world; USA 2009 National Robotics Initiative, USA National Artificial Intelligence Security Commission Artificial Intelligence Draft Law (AI Act), 2014 Japan National Robot Revolution, OECD Artificial Intelligence Council Recommendation (2019), European Commission's "On Artificial Intelligence" dated February 19, 2020 White Paper - European Approach to Excellence and Confidence" is the report of the European Union ("EU"), introduced on April 21, 2021, "Establishing Harmonious Rules Regarding Artificial Intelligence and Amending Some European Union Regulations" (Artificial Intelligence Draft Law), by China. The establishment of a software module, the International Artificial Intelligence Organization (IAIO), which uses artificial intelligence technology called "AI Judge" within the Internet Court, is also a suggestion in the doctrine[19]. On the other hand, it should not go unnoticed that legal grounds for resolving civil and commercial law disputes in China with the support of artificial intelligence are rapidly being developed[20].

Artificial intelligence has also begun to take its place in state organization. While detached artificial intelligence offices are opened in some countries, in many countries existing ministries and offices are given responsibilities for artificial intelligence applications. Examples: United States, United Kingdom, United Arab Emirates. In Turkey, the Department of Big Data and Artificial Intelligence Applications affiliated to Presidency Digital Transformation Office (PDTO) may be organized as a separate administration in the future, just like the aforementioned countries. However, since PDTO has a separate public legal entity, it is legally and strategically correct for the Artificial Intelligence Department to operate within the PDTO.

B. The Process Of The National Artificial Intelligence Strategy In Turkey
1. Authorization of the Presidential Digital Transformation Office to Make the "Artificial Intelligence Strategy" Text

The organization of the Presidency Digital Transformation Office (PDTO), which was established together with the Presidential Government System, with a separate public legal personality, is a harbinger of predictions in this area. With the abandonment of the parliamentary government system in Turkey as of 2018, the central administration, which organizes, coordinates and executes the administrative activities of the state, has started to be represented by the

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[18] "With Society 5.0, designed by the Japanese Government, artificial intelligence applications can be used in almost every field in the public sector, and it is stated that artificial intelligence and big data applications will be at the center of the public's future. *Ibid*., 790.

[19] Olivia Erdélyi, and Judy Goldsmith, "Regulating Artificial Intelligence: Proposal for a Global Solution," *2018 AAAI/ACM Conference on AI, Ethics, and Society (AIES '18), February 2--3, 2018, New Orleans, LA, USA doi/10.1145/3278721.3278731*

[20] Wang Shaoyan, "Application of Artificial Intelligence (AI) In Legal Imagination Technology," (2020): 23.
International Conference on E-Commerce and Internet Technology
https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9134134 >

Presidency. As a result, one view states that the nature of the state is transformed into the concept of "coordinating state"[21].

An issue that needs to be added to this view connected with the establishment of the PDTO is the breadth of the said Offices' ability to act with administrative and financial autonomy by having separate public legal entities. In our opinion, although the transformation in the concept of the state does not take place in the form of a "coordinator state" in the conceptual and theoretical plane, it can be said that it has an effect that changes the traditional central administration principle in the classical administrative organization structure. Because the adoption of the concept of coordinator state may weaken the concept of "public power", which is the appearance of the "sovereignty" authority, which is one of the essential elements of the state, in administrative law. However, it is clear that without public power, the state would face serious problems in executing or coordinating any administrative activity. In this context, the best solution from a legal point of view is to revive control mechanisms and mechanisms in accordance with the principle of separation of powers, in accordance with the principle of centralized administration in the *1982 Constitution* in Turkey, without reducing the state to the concept of coordinator state.

The National Artificial Intelligence Strategy published by PDTO will be examined in terms of administrative law. The need for legislation regarding the use of artificial intelligence in administrative law and the steps towards changes in existing norms will be determined.

According to the *Presidential Decree on Amending the Presidential Decree on the Organization of the Presidency*, published in the Official Gazette No. 30928 on October 24, 2019, the "Presidential Digital Transformation Office (PDTO)" was established in accordance with the concept of "Digital Transformation". According to the aforementioned Decree, "Digital Transformation: It is defined as "the holistic transformation of people, business processes and technology elements aimed at increasing economic and social welfare through the use and development of digital technologies". This definition and the establishment of PDTO as a separate public legal entity is the first step towards the National Artificial Intelligence Strategy.

2. Examining the Legal Qualification of the National Artificial Intelligence Strategy

The National Artificial Intelligence Strategy, prepared by PDTO, is thought to have similar characteristics to the "development plans" prepared by the State Planning Organization in the recent past, carried out within the scope of the state's planning activity. We see Turkish Ministry of Industry and Technology also contributed to the preparation of the strategy. It is Turkey's first National Strategy. International strategies were examined and synthesized after comparative research. The vision of the aforementioned Strategy: «Creating value on a global scale with an agile and sustainable artificial intelligence ecosystem for a prosperous Turkey» 24 objectives, 119 measures have been determined.

Two different artificial intelligence development environments will be established for public institutions and organizations and for the common use of the artificial intelligence ecosystem. In this context, the "Public Artificial Intelligence Ecosystem", which will be implemented under the coordination of the PDTO Big Data and Artificial Intelligence Applications Department, will ensure that the central and local government institutions and organizations, especially the ministries, follow the artificial intelligence and advanced analytics projects and support them in line with the guides to be prepared.

Along with the issues included in the PDTO *National Artificial Intelligence Strategy*; the need for precautions regarding information and data security is also noteworthy. In this sense, "Presidential Information and Communication Security Circular" dated 6 July 2019 and "PDTO Information and Communication Security Guide[22]" dated July 2020 are the collectivity of the legal basis of s-administration.

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[21] The authors are of the opinion that the concept of coordinator state and smart state have the same meaning. Tamer and Övgün, *supra note* 14, 790.
[22] https://cbddo.gov.tr/en/

III. CHANGES IN TURKISH ADMINISTRATIVE LAW DURING THE TRANSITION FROM ELECTRONIC ADMINISTRATION TO SMART ADMINISTRATION

A. Supporting Critical Public Services with Artificial Intelligence Supported Security Measures

Critical public service[23]; if adequate security measures are not taken; seriously endanger national security and public order; are public services that may cause irreparable results in terms of damages that may occur. Water services, infrastructure services[24] electricity services, transportation, satellite, telecommunications services are the examples of critical public services. Supporting these public services with "artificial intelligence security measures" is related to the provisions of the responsibility of the administration; it is a matter of national security.

Public services related to disaster management should also be included in critical public services. The risk management phase of disaster management services, which consists of two stages as risk management and crisis management, includes activities such as "detection of risky areas related to disasters, evacuation-destruction of risky buildings, and urban transformation. On the other hand, crisis management in disasters is related to the planning, organization and continuity of public services to be carried out after the disaster. The use of artificial intelligence, especially in post-earthquake search and rescue activities, increases the speed and the chance of early intervention to the injured, increasing the possibility of the administration to perform the public service in question fully and on time, reducing the risk of the administration being within the service defect limits[25]. As a matter of fact, the Security and Emergency Coordination Center has a duty to ensure the safety of critical public services[26].

B. "Change of the Concept of Administrative Activity" by Defining Artificial Intelligence in the Legal Basis of Administrative Law

Among administrative activities, especially public service and law enforcement can gain the names of "intelligent public service", "intelligent law enforcement, artificial intelligence supported law enforcement" with the support of artificial intelligence. It is already known that artificial intelligence technology is used in law enforcement activities. For example; face recognition systems, security code generation from retina are available today. However, in the future, robot police, the management of traffic with robot-artificial intelligence, the implementation of traffic fines with artificial intelligence, the support of the database on alcohol control with artificial intelligence will be among the issues we may encounter in law enforcement activities.

On the other hand; the transformation of artificial intelligence in public services is faster. Especially in municipalities, re-planning according to smart cities, with artificial intelligence control of critical infrastructure services, will allow the solution of the infrastructure problem before a disruption in public services occurs.

C. Change of Administrative Process Concept

Today, cryptocurrencies are used in electronic transactions (commercial or administrative). However, in the near future; The establishment of the transactions that should be established by the administration in the form of "intelligent transaction" will be on the agenda. Because unmanned vehicles (autonomous) can go by themselves with artificial intelligence; not needing a driver in municipal buses, operations related to defense [(unmanned aerial vehicle (UAV), unmanned combat aerial vehicle (UCAV)], air traffic regulation by "smart operations. Some

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[23] Generally, the concept of critical public service related to infrastructure services is used. Critical public service, which is a modern and new concept, is accepted by USA and EU countries. It has come to the force because of the possibility of cyber attacks against critical public services in documents related to cyber security in Turkey.
Abdullah Genco, "Critical Infrastructure In Turkey And Threats For Critical Infrastructure," *KAYTEK Journal* 2, (2020): 42.

[24] Mehmet Burak Pektekin and Asım Kaygusuz, "Artificial Intelligence, Smart Cities and Development," (2019) Conference: 2019 International Artificial Intelligence and Data Processing Symposium (IDAP) DOI: 10.1109/IDAP.2019.8875869.

[25] Begüm İsbir and Aslıcan Kaya, "Security and Emergency Coordination Center (SECC) and Use of Artifical Intelligence on Disasters," *Journal of Diseaster and Risk* 5 (2), (2022): 616.

[26] Kıvanç Demirci, "Cyber Security In Critical Infrastructure And An Evaluation By AFAD," *Nazilli İİBF Journal* 2, (2021): 55.

disabilities that may occur in the elements of the administrative process can be prevented. However, the risk that may arise here may be that the transaction cannot be established duly due to the uncontrolled artificial intelligence or some technical problems. Therefore, some authors in the artificial intelligence-supported administrative processing facility; draws attention to the need for a special administrative procedure law.

D. Expected Changes
1. Redefining the General Concept of Security/Change in the Concept of Public Order
There may be changes in the administrative organization. Not only in Turkey, but also in the world; The use of artificial intelligence in areas of administrative law (such as law enforcement and public services) will bring to mind a "new concept of security". Because the uncontrolled production and uncontrolled use of artificial intelligence by countries; can cause national and international crises. Taking this into account, the European Union is working on the "Artificial Intelligence Development Act" draft. (Artificial Intelligence Production Permit/License, Certification, Administrative Procedures for Granting Serial Numbers)
On the other hand, in redefining the concept of "security" in international relations, artificial intelligence is expected to be the determinant in diplomatic relations[27].

2. The Possibility of Being a New Regulatory-Controlling Institution in the Administrative Organization
When the European Union legislation studies are followed; it is seen that an independent administrative authority model related to artificial intelligence is being studied. The Board, called the "European Artificial Intelligence Board", is envisaged to have a structure that regulates, supervises and imposes sanctions on the field of artificial intelligence.

3. Making Constitutional and Legal Changes in Need of New Norms
Specifying the limits on the creation of artificial intelligence in *1982 Constitution in Turkey* creates an effect that balances fundamental rights and freedoms and security. Otherwise, fundamental rights and freedoms may become unusable due to artificial intelligence getting out of control.
 In addition to the need for new norms related to artificial intelligence, it has been determined that artificial intelligence can be applied more easily in matters related to "supplementary law, soft law", which means the application of semi-legal legal mechanisms[28].

4. Robot Public Official
In order to eliminate the uncertainty about whether artificial intelligence is included in the concept of "public official", the legal problem of whether artificial intelligence is "personal or not" must be resolved. Because in the doctrine, artificial intelligence is defined as "electronic personality"[29], it is seen that it is subject to classifications such as "legal personality", "sui generis" personality[30]. Although it is close to become possible; it can be used in services that are risky to be performed by humans (for example, Bomb Disposal in Law Enforcement). The increase of robots in employment may result in unemployment of natural person public servants. Even in business sectors that struggle with gender inequality; it is also foreseen that a new field of struggle will emerge with the robot-human inequality[31].

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[27] It is clear that artificial intelligence technology in the use of Unmanned Aerial Vehicles (UAV) creates a new research area related to the "use of artificial intelligence in diplomacy". Sefa Can Yılmazel, "Yapay Zekâ Çağında Diplomasi," *Türk Dünyası Araştırmaları* 132, (2022): 101-102.
[28] Carlos Ignacio Gutierrez, "Transitioning From Ideas to Action: Trends in the Enforcement of Soft Law for the Governance of Artificial Intelligence," *IEEE Transactions on Technology and Society* 2 (December 2021): 215.
[29] For the opinion supported by the European Union on the acceptance of electronic personality by artificial intelligence in terms of determining the liability of tort. Benli and Şenel, *supra note* 7, 332.
[30] Çağlar Ersoy, *Robotlar Yapay Zekâ ve Hukuk* (İstanbul: On İki Levha Yayıncılık, 2017), 88.
[31] Zeytin and Gençay, *supra note* 9, 43.

With the introduction of artificial intelligence, the risk of unemployment for public officials also applies to private sector employees[32].

5. The Effect of Artificial Intelligence in Judicial Decisions: Evolution of Case Laws with Artificial Intelligence

Use of artificial intelligence in law[33] it started to be discussed thirty years ago. In the last five years, many trials have been conducted and some data have been obtained. The most striking among these is artificial intelligence used in the field of criminal law[34]. However, it is still a great uncertainty whether "e-lawyer" will replace lawyers, judges, prosecutors and all lawyers in general. The artificial intelligence supported case law and legislation search engine "adalethanim *(ladyjustice)*" developed in Turkey is one of the remarkable innovations in this field[35].

IBM, on the other hand, develops an artificial intelligence called Ross and makes predictions about the results of the lawsuits.

Based on the PDTO National Artificial Intelligence Strategy and Information-Data Security Circular, Information-Data Security Guidelines, reviews, predictions and recommendations regarding the transformation of the administration into "s-administration" in the near future are brought to the legal world. Because administrative law is a young and dynamic branch of law, it changes with technological developments. This issue will affect not only the administrative law institutions, but also the administrative jurisdiction where the disputes in this field are resolved. In the decision-making process of the courts in the field of administrative jurisdiction; "In administrative law, which is a branch of jurisprudence, artificial intelligence-assisted decision databases can minimize case-law differences between judicial authorities.

CONCLUSION AND RECOMMENDATIONS

Artificial intelligence, which includes the rules of logic and knowledge, is used in law, especially in the subject of "taxation". With this program called TurboTax, tax assessment transactions are easily determined by artificial intelligence.

Classical elements of artificial intelligence; "validation, validity, security, control". In general, the concretization of the elements of artificial intelligence in a way that expresses its capabilities; speech, vision, ownership of expert systems, machine learning, artificial networks (neural networks), language processing, planning, robotic coding, deep learning, supervised and unsupervised reinforcement learning.

It would be a big mistake for law and technology to progress in separate ways. As a matter of fact, in today's world where technology is increasing day by day, cryptocurrencies, artificial intelligence, smart technologies penetrate every aspect of people's lives.

Law not only regulates interpersonal relations, but also requires legal rules for the fair resolution of disputes arising from these relations. On the other hand, the fact that the rules of law bring regulations regarding new developing technologies serves to prevent possible legal disputes. Therefore, the advancement of "law and technology" on the same plane brings many advantages.

Makes it easier for us to explain the developments in administrative law-artificial intelligence. In this context, PDTO National Artificial Intelligence Strategy is an important milestone in the transition from electronic administration (e-administration) to smart administration (s-administration) in Turkish Administrative Law. Today, when smart technologies, "artificial intelligence", "cloud", "internet of things", "data mining", "digital government", "blockchain" are discussed, the dynamic feature of administrative law also makes itself felt. In other words, the

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[32] Tonya Randolph, *Artificial Intelligence (Work, Machine and Human Interaction)*, (Snova: 2021), 13.

[33] For a study on the literature review that brings together technical-law in this field in the world. Tülay Turan, Nazan Kemaloğlu, Ecir Uğur Küçüksille, "Artificial Intelligence in Law: Studies and Future Insights," *Journal of Mehmet Akif Ersoy University Faculty of Science* 11 (2), (2020): 253.

[34] In the comparison made between the judge and artificial intelligence regarding whether the accused will be tried in detention or pending against the danger of escape, it has been proven that artificial intelligence makes more accurate decisions than the judge. Zeytin and Gençay, *supra note* 9, 44.

[35] https://adalethanim.com/home (access date: 01.03.2023)

concept of administration in the near future; it will turn into the concepts of "smart administration", "intelligent administrative action", "smart administrative activity".

It is essential that "artificial intelligence", which is a field devoid of legal basis, should be regulated as soon as possible in accordance with the principle of legality. Indeed, the lack of control of artificial intelligence can lead to «artificial intelligence terrorism».

The acceptance of artificial intelligence by the government with the National Artificial Intelligence Strategy increases investments in the field. Artificial intelligence support in law enforcement facilitates the reduction or detection of harm caused by law enforcement activities.

The National Artificial Intelligence Strategy, which was accepted by the Presidency's Digital Transformation Office, has been written meticulously enough to compete with many countries. It imposes serious obligations on all public institutions and organizations, private legal persons (real or legal), and especially draws attention to the use of artificial intelligence and cyber security.

Digitalization has left its place to smart transactions and smart activities. Because beyond digitalization; artificial intelligence supported, autonomous systems; while increasing the quality of public service; provides economical solutions.

E-government applications are related to the concept of digital government. However, the use of artificial intelligence in administrative activities has now created the concepts of "smart state" and "smart administration".

The concept of "Smart Administration" also changes the subject of the responsibility of the administration. As a matter of fact, in the use of artificial intelligence in administrative activities; "A process is pending in which the rules on holding direct government accountability will be reviewed.

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