

# Shifting Towards Urban Electronic Governance Using Artificial Intelligence: A Legal Analysis of Challenges and Opportunities

HAMDN GHUNEMAT<sup>1</sup>, Musaab Faraj Mahdi<sup>2</sup>, Abdullah Radwan Arabiyyat<sup>3</sup>

## Abstract

*There is a rapid spread of artificial intelligence applications (ALA hereafter) worldwide resulting in their intervention in various fields, yet electronic management is not exceptional. This study illustrated the role of ALAs in the electronic management of public facilities in the government sector. In order to obtain rich data, the researcher employed a descriptive, analytical, and legal interpretive methodology. The main result showed that the administrative staff had a limited ability to deal with modern technology. It also indicated that ALAs might be used within open-source software or social networks to infringe upon the privacy of individuals and institutions.*

**Keywords:** *Artificial Intelligence Applications, Electronic Management of Public Facilities, The Government Sector*

## Introduction

The revolution of Artificial Intelligence (AI) applications is advancing rapidly and continues to enter an increasing number of fields which leads various public and private institutions to compete to invest in AI technologies. AI also has the potential to change the method members of society interact with information technology, especially how personal data interact with the devices and software that people use daily. The process of applying AI in public facility management takes place through creating designs, using cognitive computing, and evaluating them, in addition to machine learning, decision-making, and implementation of public policies and the mechanisms associated with them. The public administration has started to discover the importance of utilizing AI in different fields enabling it to increase the capabilities of its workforce. This will happen throughout processing and learning from large amounts of data across heterogeneous systems in real-time and interacting with management through processing that will allow the cognitive systems of public administration to free its workforce from tasks that are ready for automation. The expansion of using AI in the public administration leads to change the traditional methods of service delivery, policy development and enforcement. Accordingly, this improves the quality of public service through the use of AI techniques and enhancing people's confidence to increase efficiency in providing services.

Nevertheless, the use of AI faces major challenges in a way it may lead to a lack of people's confidence of violations of their privacy, unfairness and lack of transparency in the system such as unclear responsibility. Moreover, these facts increase the risks for public administration activities because failures due to use may have negative effects on the government. Therefore, this study will examine the AI in the Jordanian law, its operation in public facilities, its role in electronic management in the governmental sector.

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<sup>1</sup> PHD, General section, college of Law, Mansoura University, Egypt, Email: Hmd1512@gmail.com

<sup>2</sup> Specialization / Arabic Language / Modern Literature, Al-Iraqia University / College of Islamic Sciences, Email: musaab.f.mahdy@aliraqia.edu.iq, ORCID: 0009-0006-9466-2735.

<sup>3</sup> Associate Professor, Department of Planning and project management, Faculty of Business, Al-Balqa Applied University, Email: arabeyyat@bau.edu.jo, ORCID ID: 0000-0002-1024-2359

## *The Study Problem*

### **Methodology**

In order to identify the study problem and its elements, the study applied the descriptive, analytical, inductive, legal method, through a legal analysis of the texts of articles related to the subject of AI and the management of public utilities.

Firstly, The concept of AI in the Jordanian law

The systems of AI through the electronic medium were defined in Article (2) of the Transactions Law No. (15) of 2015 as: “The electronic program that is used to carry out a procedure or respond to a procedure automatically with the intention of creating, sending, or delivering an information message” (Article Two of the Transactions Law Jordanian Electronic Electronic No. (15) of 2015).

The Jordanian legislator has defined the nature of the intelligence system as (a computer program or any electronic means) and described it as an electronic medium. Despite the current development of technology, this topic is still unfamiliar to various number of scholars and researchers. It needs profound review and study to discuss its ethics and ability to interact with individuals as there are no legal principles and definitions that provide full protection for users, nor are there any regulatory principles that control the process of using artificial intelligence technologies. Thus, this leads to increasing ethical concerns about the impact of artificial intelligence on individuals’ privacy. In this context, the Artificial Intelligence Conference held in Asilomar in 2017, the Future of Life Institute emphasized the most important principles related to the development of AI, which aims to confirm the importance of AI and that it was designed and developed for the benefit of humanity (Butterworth, 2018: 257).

The processes of AI applications do not merely include simulating the mental processes of humans, it also provides machines the quality of intelligence, so that they can carry out functions and operations that are still exclusive to humans, such as thinking, learning, creativity, and communication (Mathkour, 2020:166). AI is distinguished for its ability to interact with the incomplete data and to provide an acceptable solution for it as well as it is characterized by an experimental research method to solve a problem and develop appropriate hypotheses for it, its ability to represent symbols so that its programs can deal with symbols that express something, its superior ability to learn and innovate, and to embrace and represent knowledge (Alselmi, 2017: 103). Moreover, AI has further advantages of preserving human expertise by transferring it to smart machines, and it plays an important role in sensitive fields, such as helping in diagnosing diseases and prescribing medications, legal consultations, and interactive education. It has also contributed to reducing human exposure to many risks, by employing machines to carry out... hard and dangerous work. Additionally, it enables human to use the human language to deal with intelligent machines instead of using programming languages, which made it more accessible and accessible to all segments of society after it had been limited to specialists only.

In addition to enabling humans to use the human language to deal with intelligent machines instead of using programming languages, which made it more accessible and accessible to all segments of society after it had been limited to specialists only (Bomedian, 2019: 198).

Regional efforts have contributed to establish legal protection for individuals in light of the use of computers to store information about individuals in various countries of the world.

The attention increased even more when transferring and exchanging information across networks. In its role, Sweden led all countries that developed legislation to protect personal data when it issued the first law in 1073 AD which it has been subjected to several modifications due to information development. In 1998, a new law on personal data was issued while, in 1974, the United States of America issued the Privacy Act and other laws, such as the Consumer Privacy Protection Act, the Communications Privacy Act, the Data Privacy Act, and others. Furthermore, Germany issued the Data Protection Law in 1977, in addition to

another data protection law in 2000, while France issued the Information and Freedoms Law in 1978 (Mustafa, 2016:90).

The Arab countries, as same as other countries, have also sought to establish legislative protection for individuals' privacy from the risks of using smart technologies. Tunisia, as an example, have worked to issue Basic Law No. (63) of 2004 regarding the protection of personal data which contributed to the establishment of an independent administrative authority, called the "National Authority for the Protection of Personal Data". Another example is Algeria which amended the Penal Code to confront new forms of crime, as Section 7 bis was included in Law No. (15.04) of 2004 AD, and is titled: "Abusing automated data processing systems."

Jordanian legislation moved in the same direction, as Article (48) of the Jordanian Civil Law stipulated the existence of rights called rights inherent in human character. The Electronic Transactions Law also granted full protection to the private data of individuals, and devoted a chapter to it, Chapter Seven, entitled "Protection of Private Information" (Bashtawe, 2017:105).

In the same vein. the Gulf Cooperation Council countries were among the countries that worked hard to create a legal environment capable of confronting the technical challenges that invaded the private lives of individuals throughout introducing new laws or amending existing laws to suit the technical changes witnessed by the era. The Qatari legislator responded to these developments and thus issued Law No. (13) of 2016 regarding the protection of the privacy of personal data, which provided special legal protection for personal data. It is worth mentioning that the State of Qatar is the second Arab country after Tunisia and it is the first Gulf country to be the only legislative country to issue a law specializing in the protection of personal data (Rashid, 2017:75). Furthermore, Kuwait is another Gulf country that sought to provide full protection for its individuals' data and enhance their use of information and communications technologies, as it activated the Electronic Transactions Law No. (20/2014), which addresses several issues, such as: (data protection, electronic signatures, validity of electronic payment, protection of privacy and prescribed penalties) (AlJarAlla 2016:173).

#### *Secondly: AI and Public Utility Functioning*

An electronic public facility is defined as "an activity carried out by electronic means, carried out by the administration itself or by ordinary individuals under its supervision and direction to satisfy public needs and provide public services to the public" (AlAmawe, 2012). The electronic public facilities are managed by using cardboard methods that are characterized by quick completion, less cost, and accuracy in performance. Thus, electronic public facilities do not differ from traditional public facilities, except in terms of the means used in management, operation, and service provision. The traditional facility relies on physical procedures such as coming to the public facility to receive the service, submitting paper applications to obtain the service. While the electronic public facility adopts electronic means in providing its services that do not require traditional papers, documents, and paper applications and direct dealing with the public employee, but rather relies on electronic applications instead. As for the elements of the electronic public facility, they are the elements of the traditional public facility, taking into account the electronic method used in providing public services. These elements are represented as follows: 1. The element of public benefit, 2. the element of public authority, 3. delivering a service throughout a project, 4. satisfying a general need and 5. □ Subject to a special legal system (Alqubilat, 201: 276).

The electronic public administration is defined as "the process of developing, disseminating and implementing policies and laws and creating the infrastructure that would activate information and communication technology to create a knowledge society in which safe, more effective and appropriate electronic services are available for different segments of society" (Yonus, 206:44). So that these services can be accomplished with the lowest possible time and cost, and this is done using various electronic ports" (ibid.). On the other hand, electronic management is defined as "the process of mechanizing all tasks and activities of the organization, relying on the necessary information technologies, to reach the achievement of the goals of the new administration in reducing the use of paper, simplifying procedures, eliminating routine, and rapid and accurate completion of tasks and transactions, so that each department is ready to

link them with electronic government later. The process Administrative based on the distinct capabilities of the Internet and business networks in planning, directing and controlling the resources and core capabilities of the organization (Alsalmi and Alsalmi, 2005: 40-44)”.

The importance of setting rules and laws regulating the operation of public facilities lies in enabling the ability of these facilities to achieve the public interest in the best possible ways that are appropriate to the circumstances and circumstances accompanying their situation. If these circumstances and circumstances change, it will reflect negatively on these laws, making them unable to manage public facilities, or making them incapable of achieving their goals. It is natural for the authority to grant the administration the right to amend or change these laws and regulations to suit the new circumstances, and this is what is known as the principle of adaptation (Mujahidi, 2014:189).

This principle also means that the administration has the right to intervene at any time to amend or change the rules governing the facility in order to best agree and achieve the public interest. This is because the administration works to organize public facilities to ensure that they operate as efficiently as possible under the existing circumstances. If circumstances change or the administration demonstrates a better way to increase the efficiency of the facility in order to achieve the public interest, it may make whatever amendment it deems necessary in its organization, without anyone having the right to object to that, whether among the facility's beneficiaries or its employees (Saloom, 2005: 123). This established right to management without the need for a text, even if the facility is managed by concession. Anyone who contemplates what is meant by the principle of the facility's ability to change and develop at any given time will find that it is, in fact, an extension of the continuity of the public facility. As it gives the administration the right to amend the rules of organization of the facility and the rules of its operation or operation whenever it wishes, which is a right that is consistent with the regulatory nature of regulating the operation of the facility (AbuAlail, 2000: 189). The system allows employees to learn about their career progression and the sequential process of eligibility for promotion.

The system allows employees to learn about their career progression and the sequential process of eligibility for promotion. Which leads to developing the administrative apparatus in the country for the better and preserving employees' rights to promotion and other things such as: salaries, periodic bonuses, and deductions made from salaries. Moreover. it also leads to a positive impact on the implementation of administrative affairs in government agencies, especially in the field of the annual report to evaluate the efficiency of employees' performance, the process of resignation and withdrawal, the cash compensation for the balance of periodic leave, and how to deduct and reduce the salary or stop part of it if the employee is suspended from work and the suspension is lifted (Abu Zaid, 2001: 15). There is no doubt that this will contribute to fighting corruption in government departments, especially in the field of promotions and others. As it will be easy for the employee to submit his complaint electronically to his employer or the competent authority if an error occurs or a violation of his financial or administrative right occurs, which will work to push departments to improve and develop their performance for the better (Shamma, 2005: 5).

It is considered one of the important achievements that have had a clear impact in light of the coronavirus crisis, which is facilitating the transactions of individuals within public facilities. Ministries, institutions and public bodies have allocated an email and a specific domain that is created by the relevant government agency (the National Information Center in Jordan) to include all public employees. Through this, information, official books, or correspondence are exchanged, thus dispensing with a large portion of paper documents. These entities also allocate an electronic system for incoming and outgoing mail and archiving it within the department, through which official transactions are distributed according to the competent department. Therefore, this led to the complete dispensing of paper documents, and also led to ensuring and archiving documents, which facilitates the process of finalizing and facilitating transactions within record time and effort compared to the traditional situation that prevailed.

Another contribution of the electronic public administration is to developing the physical work of the administration. It is known that the administration does not only carry out administrative actions in administrative decisions and contracts, but also it carries out material actions, which are all the actions of

the administration that do not fall under the meaning of administrative decisions (AltamaweRaefat, 1993: 243). Examples of physical actions include a car belonging to a popular agency hitting a person and causing him a disability, or an employee employed by the administration assaulting a citizen, or the administration paving a road, or building a tunnel, etc. Accordingly, what is meant by material actions are those for which the public administration does not intend to create legal effects. It causes indirect legal effects, such as traffic accidents in which the public administration is a party, which are represented by the technical work carried out by public administration employees under their jobs, such as engineers and doctors. In addition to the General Administration's implementation of administrative decisions and orders, including the demolition of a house on the verge of collapse. The impact of electronic public administration can appear on a number of aspects of employees' physical work (the job), such as developments occurring in the workplace, for example, where employees' attendance and departure are proven electronically through an electronic card or electronic fingerprint.

The benefit of the electronic method in issuing the decision and communicating it to the stakeholders became apparent during the Corona pandemic since the public administration began conducting its meetings through modern means of communication such as the application (Zoom). Moreover, it enables the administrative head to communicate with employees through these modern applications as well as deliver these decisions to individuals through modern technological means such as text messages (SMS), telephone calls, and sending via e-mail. The impact of the Corona pandemic extended to include the work of the Administrative Court, so the Jordanian government issued defence decisions that included the electronic work of the courts, including notifying cases and hearing dates electronically. According to Defense Resolution No. (21) in Clause One, Paragraph (5), it stated: "The Judicial Council shall issue a decision specifying the dates of the sessions taking place, and those dates shall be published on any of the websites of the Judicial Council, the Ministry of Justice, and the Bar Association, and the parties to those cases shall be considered informed of those dates from the date of its publication on any of these sites". The defence order has been considered publishing the dates of the sessions on the website of the Judicial Council, the Ministry of Justice, and the Bar Association as a legal notification and in order for the legal effects of the notification, and the defence order's electronic publication report, even if it came in emergency circumstances due to the Corona epidemic (Jordanian Defense Order No. (21). Paragraph 5). Despite the fact that it is an important development in the electronic legal field, its publication was not approved according to Article (12) of the Jordanian Code of Procedure, which states: "If the court finds that it is impossible to conduct notification in accordance with the procedures stipulated in this law, it may decide to conduct notification by publishing." An advertisement or two local daily newspapers, provided that the advertisement includes a notice of the necessity of reviewing the person to be notified with the clerk of the court to receive the documents, if any, unless notification is not possible according to the Civil Procedure Code.

There is also another practical application for issuing administrative decisions via electronic means in the Corona pandemic through public authorities in Jordan, such as municipalities, the official website of the Greater Amman Municipality on the Internet, as well as the official website of the Greater Irbid Municipality on the Internet, which provides services electronically, such as occupational licenses, by submitting a request to obtain the service on the official website of the Greater Amman Municipality on the Internet (Amman Municipality website, 2023) [www.amman.jo/ar/main/index.aspx](http://www.amman.jo/ar/main/index.aspx). In communicating its administrative decisions regarding the Corona pandemic in Jordan, the administration relied entirely on electronic means, as its administrative and organizational decisions were published on the Hashemite Journal website, at the following website: [www.pm.gov/newspaper](http://www.pm.gov/newspaper) (Jordanian Prime Minister's website, 2023).

As for individual decisions related to individuals, the administration followed notification through the government's mail [info@pm.gov.jo](mailto:info@pm.gov.jo), as well as through SMS text messages. The executive authority in Jordan has relied on making administrative decisions through the application of the (Zoom) program, by holding administrative meetings through this technology, and communicating its decisions to its employees verbally through this technology, which provides an animated and direct image among the assembled members. This obstacle is represented by the lack of qualification of government departments with the

modern technologies necessary to issue administrative decisions electronically, and then communicate them to stakeholders electronically. Modern administrative work requires access to individuals' requests electronically, programming electronic devices to receive those requests, sorting them according to their type, and pre-programming them to deal with them.

The work of the electronic administration is carried out in large part based on an electronic model that the administration prepares in advance on its website. It organizes a field that explains the nature of the legal effect to be achieved from the issuance of the administrative decision, such as amending the status or legal position of an employee who is to be promoted from one grade to another, and specifying the effect that it has on the employee's status and including it in the designated field in the electronic form (Alqaisi, 2012: 11). As part of the work of e-government is to automatically respond to individuals' requests on computers in an automated manner, by converting some of the simple actions carried out by the employee into electronic actions that are carried out automatically (Qubilat, 2014: 84).

In the same vein, Article (4) of the Jordanian Electronic Transactions Law No. (15) of 2015 stipulates the possibility of using electronic means in all government departments. Article (4/A/B) stipulates that: "Any ministry, public official institution, institution, or municipality may conduct its transactions using electronic means, provided that the requirements for electronic dealing contained in this law and the regulations and instructions issued pursuant to it are met, and each ministry or institution shall An official, public institution, or municipality, when conducting any of its transactions by electronic means, shall specify the provisions and procedures related to instructions, which are: (creating, depositing, preserving, or issuing electronic records, using the electronic signature and any other conditions related to it, and the security, protection, confidentiality, and integrity of electronic records and transactions, and the date of commencement. Conducting its transactions by electronic means" (Jordanian Electronic Transactions Law, No. 15 of 2015, Article (4/A/B).

Moreover, Article (13/2/a/b) of the Jordanian Data Law No. (30) of 1952 and its amendments No. (16) of 2005 stipulates: "Taking into account the strength of this paragraph, faxes, telex messages, e-mails, and similar modern means of communication shall be valid." The strength of ordinary bonds in proof is if they are coupled with the testimony of the person who sent them to support their issuance or with the testimony of the person to whom they were received to support his receipt of them, unless proven otherwise. Email messages have the strength of ordinary bonds in proof without being coupled with the certificate if the conditions required by the effective electronic transactions law are met. It may be agreed that the data transferred or saved using modern technologies through a secret number agreed upon between the parties shall be the evidence of each of them to prove the transactions that took place according to that data, and the certified or signed computer outputs shall have the normal force of attribution in proof unless the person to whom it is attributed proves that he He did not extract it, authenticate it, sign it, or assign anyone to do so" (Jordanian Evidence Law No. 30 of 1952, and its amendments No. 16 of 2005, Article 2/3/2/a/b).

### *Third: Artificial Intelligence and Its Role in Electronic Management in The Government Sector*

After the introduction of electronic means and artificial intelligence applications to public facilities, several positive effects have been achieved regarding the activity of the public facility as a result of reducing bureaucracy and ultimately contribute to achieving the principle of the regular and steady operation of the public facility to provide service and satisfy the general needs of the public. The concept of reducing bureaucracy is represented by removing administrative routine, by developing and transferring administrative work in facility activity from the traditional paper system that limits the effectiveness of the facility's performance to the electronic technical method that increases its speed and smoothly determines the organizational relationship with its superiors and determines the relationship with the public facility (Sadawe, 2009:62).

The electronic system leads to the beneficiaries dealing with the facility with reassurance, as they do not hear phrases stating that the work has ended, that the employee has not arrived, or that the employee is on leave. The beneficiary can access the Internet at any time, even if the facility is outside official working

hours, to find out what the procedures and information are for completing his transaction or any interest he has with the facility.

If the electronic management system in the public facility is carried out through the provision of service by employees, the cases of employee strikes and abstention from performing the service will be greatly reduced. This is because services are not affected by the presence of employees, as the individual can obtain the service even in the absence of employees, by logging onto the Internet day and night and going through the service procedures until obtaining it. The same applies to cases of resignation, as this does not affect the service as it is provided electronically (Albaz, 2007: 142). Except in some facilities that require the physical presence of the employee and the individual dealing with the facility, such as the judicial facility and the health facility.

This method would work to literally implement the principle of keeping the public facility running regularly, steadily, and almost completely, by providing electronic portals that provide their services on the Internet at all times of the day. This happens continuously, without interruption due to vacations or vacations, and without being tied to the working hours of the public facility, meaning that the service is provided at all times of the year. Reducing bureaucracy by following electronic means in this principle also saves costs, expenses, effort, and shortens time in completing transactions within the facility, ensuring the effective performance of the administrative function within the facility optimally (Sadawe, 2009: 142). This will contribute to establishing a permanent state of communication with the beneficiaries of the utility service and business sectors in a way that achieves the interest of the state as a whole by running its facilities regularly (Hassan, 2021).

Furthermore, electronic means, from the researcher's point of view, allow saving information electronically with ease of moving between them and recalling what is wanted from it easily and smoothly without referring to the competent employee, files, and paper archives, which is known to increase the difficulty of obtaining information. The decisions taken by electronic means are communicated quickly between employees or between the administration and the public smoothly and easily and do not hinder the provision of the service and the regular functioning of the public facility.

Among the effects of applying the electronic means method on the principle of roundabouts is the regular flow of public facilities and the elimination of standing in waiting lines inside offices or corridors within the facility, which in turn leads to difficulty in obtaining information easily and completing the required transaction easily and avoiding the person dealing with the facility colliding with the employee who is in a moody state of crowding. He does not perform the service in the facility as required. The public also gets rid of the problem of the public facility's official working hours ending before completing their transactions. In many cases, those requesting service from the facility are exposed to fines and penalties due to failure to complete the transaction, such as in the case of imposing a specific fine or penalty in the event that the service requester is late in paying a certain fee, and all of this is due to the inability to reach the employee's counter during the official working hours of the public facility (Hassan, 2021).

In the same context, Article (21), which was approved by Cabinet Resolution No. (659) dated 12/20/2020, stressed the establishment of new regulatory frameworks to ensure the responsible use of artificial intelligence technologies. In a way that stimulates creativity and innovation at the same time, the National Charter for Artificial Intelligence Ethics has been initiated by emphasizing the creation of a common ethical base that regulates the process of developing and using artificial intelligence technologies that stem from human and religious values and the customs and traditions of Jordanian society. In addition to raising the level of awareness among individuals of the risks that can result from practice outside the responsible and safe ethical framework, the Charter generally includes basic ethical principles that include accountability, comprehensiveness, transparency, impartiality, consideration of privacy, promotion of human values, and other ethical principles that take into account the most important ethical issues of use. artificial intelligence.

As part of the Jordanian government's efforts to expand the applications of artificial intelligence in government institutions, work has been done to raise the level of awareness of government employees so that they are the target group for this initiative, The public sector and all state employees. A group of

different workshops and seminars will be implemented for public sector employees to introduce artificial intelligence. This initiative aims to demonstrate the ability of artificial intelligence to solve many challenges and how to use it to stimulate the national economy, and to use artificial intelligence technology and analysis based on presence and location information, to determine the nearest location for government services (health center, hospital, vehicle licenses, etc.). According to the times with the least pressure on service centers, and based on the personal address, work address or current location of the application, and enabling the application to automatically determine the place of residence and place of work according to presence information (Ministry of Digital Economy and Entrepreneurship, Jordanian Strategy for Artificial Intelligence and Executive Plan, 2023-2027).

The application of artificial intelligence tools contributes to raising the efficiency of the public sector and priority sectors, including, for example, monitoring the quantities of fuel available at gas stations, consumption quantities, and strategic stocks by creating artificial intelligence programming that predicts consumption quantities in different regions based on historical consumption figures. The software also estimates the quantities of fuel present in private stations that do not have sensors, strategically builds stocks at gas stations, and distributes fuel appropriately, in addition to the feature of reminding and alerting citizens of the dates for carrying out government transactions, based on information about health insurance, licensing, civil status, public leadership, tax, and insurance. Licensing, family book renewal, passports, information and tax filing service.

The use of artificial intelligence in electronic management in the government sector is as follows:

- Weak ability of the government sector to provide a high level of services, which requires the use of artificial intelligence to simplify procedures and facilitate their provision to auditors (Darkar, 1994: 164).
- The government sector's need for mutual trust with auditors, which requires the use of the electronic management method because it is characterized as a new style, in which there is neutrality, objectivity, and discipline in completing work, which contributes to modifying the old image of government administration in his mind (Alhassan, 2009: 18).
- Government departments seek to develop their national cadres and qualify them with the best modern technologies, with the aim of developing the country and keeping pace with global technological development, by providing technical infrastructure for national cadres, including networks and information bases.
- Governments seek to participate in global markets and benefit from this participation as one of the global market forces. To achieve this, they need technical assistance that gives these departments the ability to experience global trade (Alsalmi&Alsaleti, 2008: 33).
- Government departments seek to increase the ability of small enterprises to participate in the global trade movement by engaging in the experience of electronic administration, since the state's electronic administrations are a window through which these small enterprises can see their customers abroad and sign agreements with them through the state's window (Egyptian Council of Ministers, 2006: 78).
- Electronic administration contributes to reducing the burden on the state in creating new job opportunities, by providing craft work opportunities, encouraging small and manual projects and marketing their products, which draws the attention of the youth sector and small investors to the benefit of undergoing such successful experiences, and striving to build themselves. And developing their capabilities, by exploiting the capabilities provided to them by the state, which creates a state of aspiration for self-employment, which is a strategic development goal that will reflect positively on the state (Alghodi, 2006:37).

- Electronic management is characterized by its ability to carry out administrative transactions in a short time, and facilitate communication between departments of government agencies and their organizations, in addition to accuracy and clarity in implementing its operations, as well as supporting the organizational culture among all employees, increasing the interconnection between senior and middle management and workers, and providing data to auditors and beneficiaries in general. Immediately, and reduce obstacles to decision-making (Darker, 1994: 1660).

According to abovementioned, it can be said that Jordan has made remarkable progress in the global report on government readiness to adopt artificial intelligence technologies during the year 2022, to rank (63), advancing (17) places in the general index compared to rank (80) in the 2021 report. This progress is due to governments adopting artificial intelligence technologies, through the government's approval in 2020 of the Jordanian Artificial Intelligence Policy, formulating an artificial intelligence strategy, preparing the National Charter for Artificial Intelligence Ethics, and undertaking a project to measure the readiness of government institutions to adopt artificial intelligence (Insight Oxford, 2022).

Among the most prominent government departments and the first to use artificial intelligence techniques in carrying out their work is the Income and Sales Tax Department. This is during the process of auditing the tax returns submitted by taxpayers, as these returns are audited electronically through the artificial intelligence program immediately after they are submitted and entered into the system. These declarations are accepted directly if the information and data provided in them are correct. Artificial intelligence and its application have also contributed to increasing the speed of completing the audit of the declarations and issuing their acceptance on the same day. This made it easier for the taxpayers and the department and saved them time, effort and follow-up in auditing companies, establishments and individuals. The application of artificial intelligence also contributed to raising the efficiency of the department's plan to combat tax evasion and avoidance, as it allowed achieving differences from tax audit and inspection during the first nine months of the year 2023 amounting to (338) million dinars, while for the same period in 2022 it was about (322) million. dinar, with an increase of about (5%). In addition to its contribution to the speed of obtaining a clearance (Income and Sales Tax Department, 2023).

## Conclusion

The public administration employs the Internet and modern means of communication, with their indescribable advantages, in carrying out its tasks as a means of support. This means that the public administration conducts legal actions, wholly or partially, through this network. Thus, it led to the emergence of new legal terms in this field, such as the electronic administrative contract and the electronic administrative decision. The electronic public administration system aims to facilitate the government's provision of its services, as it enables it to choose the management method that ensures this is achieved efficiently and effectively through the use of modern technology means. This ensures that the administration carries out its duties efficiently, as electronic means make it more capable of benefiting from the information it has, and more closely monitoring the progress of the administration's work, while the concept of public administration remains constant as it is in terms of it being a functional body that performs the services it undertakes.

## Results

The study concluded the following results:

- The inability of most management employees to deal with modern technological means, due to their loss of technical skill as well as the lack of holding training courses for employees of administrative departments, which made it difficult and great complications in exploiting modern technology in administrative work in the best way.

- Artificial intelligence applications may be used within open source software or social media networks to infringe on the privacy of individuals and institutions. As it is possible to commit cybercrimes such as fraud, electronic blackmail, stealing government data, and disrupting systems, or it can be manipulated by so-called social engineers to commit cybercrimes in more advanced ways.
- Artificial intelligence technologies pose a very important threat to civil and military institutions in the world, due to the nature and sensitivity of the data contained in their systems. Especially the systems of security and banking institutions, some of which are classified to the level of secrecy. In light of the ability of smart algorithms or social engineers to access it, it poses a threat to governments, and leaves a number of ethical implications and societal issues. Which negatively affected the continuation of work and the provision of services, and caused huge financial losses.
- Jordan's interest in taking a set of technical measures to ensure data protection, in a safe environment, and to preserve users' privacy, and not violate it, which contributed to reducing the percentage of ethical issues that Jordan may face as a result of using artificial intelligence applications, like other countries of the world, and the technical measures were represented in: Ensuring the confidentiality of information assets, securing the organization's internal network, installing protection programs, avoiding external input devices and prohibiting the installation of untrusted software, periodically evaluating programs and applications, and subjecting employees to training programs.

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