The Role of Electronic Legal Information Systems in Improving the Quality of Work and Legal and Judicial Services

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Abstracts: As many countries have worked to improve the performance of the work of various legal bodies, whether official or unofficial, thanks to the transformation from traditional systems—which have been applied for a long time—to electronic systems, this study examined the impact of the information technology revolution on improving the quality of legal and judicial services provided by the justice sector to those dealing with various justice agencies. The study showed that the transition from the traditional judicial system to the remote judicial system contributed to increasing the productivity of the courts, raising their efficiency, and reducing corruption. The study also demonstrated how countries’ efforts to create electronic versions of their laws and court rulings made it easier for judges, lawyers, and legal researchers to access these documents and rulings. This was evident in the standard of court rulings, legal research, memoranda, and pleadings in court. The study concluded that the creation of legal information systems and the widespread use of them improved the efficiency of judicial and legal services offered to different clients interacting with the justice systems in those countries, as well as having a positive effect on the workflow of judges, lawyers, and legal researchers. It is therefore the duty of the various active institutions in countries (formal and informal) to work toward encouraging the adoption of such systems in accordance with controls that provide security and protection against hacking and tampering with the information included in those systems. Additionally, the adoption of secure legal information systems has become an indispensable need and necessity to satisfy the needs of various workers in the justice sector.

Keywords: Information Systems, Remote Litigation, Judges, Lawyers, Legal Research, Electronic Legislative Content, Electronic Judicial Rulings Content.

1. INTRODUCTION

An electronic information system is a set of information programs, and information technology is systems used to generate, process, organize, store, and transfer electronic data. The term "electronic information" refers to data and information that can be written, graphic, audio, visual, numerical, symbol, or signal that can be stored, processed, generated, and transferred via information technology. A set of data, commands, and instructions that can be carried out via information technology and are ready to complete a certain task is often referred to as an electronic program.¹)

In light of this, legal information systems can be defined as a collection of components that enable the gathering, organizing, processing, and distribution of data in a variety of legal sciences. Additionally, the use of computers and other electronic devices and methods for communication allows for the automation of procedures and gives them a tangible aspect, as demonstrated by the electronic case filing system. This definition makes it evident that every information system carries out four tasks, which we have listed below:

- Information collection: In order for information to be formalized, it must first be gathered and then entered, that is, into the information system.
- Information storage: Files and databases are the two primary mechanisms used for this.
- Information processing is the process of employing computer programs to create new information from previously collected data.
Information distribution: If it is not shared with the appropriate parties, it is useless.

Traditional methods are increasingly being replaced by electronic information systems. The electronic information system for remote litigation, the electronic information system for attending sessions before remote court hearings, the electronic information system for researching cases, the smart lawyer system, and legal information systems that include legislative content, judicial rulings, and legal research in various branches of law to benefit the legal researcher are among the many electronic programs that make up the electronic information system in the field of legal and judicial work.

The objective in this study is not to address and describe every information system related to legal and judicial work, but rather to identify and analyze examples of information systems that facilitate easy interactions with different justice agencies and legal researchers in general. Will these systems truly be successful in offering simple services to individuals dealing with diverse justice systems, or is their use fraught with complexity that necessitates a high level of proficiency with current technological tools? We shall split these studies into the following two topics in order to comprehend these legal systems:

2. The importance of legal information systems in judicial work

3. The role of legal information systems in legal research.

2. The importance of legal information systems in judicial work:

Electronic information systems are essential for justice systems because they make the litigation process easier from the point of case registration to the point of the sentencing. In order to facilitate the litigation process, the Emirati legislator has allowed the president of the court, the head of the circuit, the competent judge, or anyone delegated from any of them, to conduct civil case proceedings remotely at any time during the case. This authorization has been in place since 2017. The UAE Ministry of Justice’s website, https://www.moj.gov.ae/ar/services.aspx, hosts the Smart Justice System, an electronic system designed to streamline litigation procedures. The following services are offered by this system: access to the remote meetings and hearings site, electronic case filing, and the smart lawyer service. We shall restrict our analysis to two services—the electronic case filing system and the system for gaining access to the remote hearings and meetings portal—due to the abundance of electronic services associated with judicial work.

2.1 Electronic case filing service and the smart lawyer:

Throughout the litigation process, the Smart Justice System offers lawyers and court users the ability to register and manage case files. Lawyers and other users can use this method to immediately enter data into electronic forms, which can then be used to automatically fill out additional court documents.

In order to benefit from the electronic case filing service, you must enter the UAE Ministry of Justice portal (https://www.moj.gov.ae/) and then choose the electronic services from which a list that includes the electronic systems, and when clicking on the electronic systems icon, the user chooses the electronic case filing system, he can enter this system only after creating a new individual account. To create a new account, the user needs to click the "create a new account" icon. This will bring up a page where he can enter his contact details, membership details, personal identity, and other data. After that, he can confirm his information by pressing the "confirmation" button, check the box to agree to the terms, and submit the form. A message stating that the registration was successful will then show up on the screen. This means that the user has made a request to the system administrator to approve the user account request. Upon approval of the request, a message will be sent to the user’s email that includes a link to create a user and password.

The user has to click on the link in the email that was sent to him in order to create an account. After that, he can create an account by entering his username and password and confirming it. In order to recover the password in case it is lost, he must also provide a reminder in response to a question. Once finished, he must click the Save button.
button to create his own account, he needs to enter his login and password in order to access the system. Once he does, a screen containing icons for his data, the option to modify the password, and the opportunity to make an electronic signature will appear, he is prompted to save those whenever he makes any changes.

Since the UAE Civil Procedure Law allowed the case to be registered electronically or traditionally, the legislator permitted individuals and lawyers to register the case electronically at the case management office. Registration is not done electronically until the case is created electronically. So how to create a case electronically?

The case is created electronically by accessing the electronic justice system. After logging into the system, the user must go to case management and work on creating a draft case. A page appears that includes entering data related to the name of the emirate, the location of the court, and the type of court (first instance, appeal, execution and so) and type of the case (civil, commercial, legal), the classification of the case, and the source of the case (federal or local). After entering the data related to this page, the user clicks on Next and the page related to the case appears. On this page, the user must specify what is filing the case, the title of it, a proposed date for the hearing, and specify the claim, the type and amount of each claim if there is no value for the claim, the user can choose not to have an estimated value. After completing the details of the claim, the user must click on Save or Next, and the next page appears related to identifying the parties to the case, namely the plaintiff and the defendant, and the details related to each party, then click on Submit in order to save the information entered and related to each party. If the user wants to appoint a lawyer to represent him in the case, he must fill out the information related to the lawyer, and then click on Next, he will then be taken to the page related to listing the documents he relies on in his case. When inserting any document, he must click Save, and it must be noted here that the plaintiff has _if the defendant is a foreigner_ to translate the documents submitted by him into English, and when he clicks on save and moves to the next page related to fees, the plaintiff will be directed to pay the fees electronically, and upon paying the prescribed fees, a summary of the case will appear to him and he will be asked to approve what he has entered. If the user clicks on agree, a message appears to the user stating that it has been saved successfully, and the plaintiff can follow up on all the cases he entered into the system by accessing his case management list. The case is submitted electronically to the case management office, which in turn registers that case after verifying all the attached documents and ensuring that the prescribed fees are paid, and then announces it electronically to the defendant.

The office sends to the opponents and their agents an encrypted secret number according to any of the available electronic means that enables them to enter the system and view all the electronic files related to their case in the electronic information system directly. It also sends those files electronically or by one of the modern technical means via electronic media. The defendant can access the smart justice system and respond to what was stated therein according to a response memorandum attached to all the documents he relies on in his defense and signed electronically within 10 days from the date of his announcement in the statement of claim. With these procedures, upon payment of the fees, the case is registered, and a session is set to consider the dispute by the court after the case is referred to it by the case management office, trial sessions may be held electronically, as electronic means help in holding these remote sessions or hearings, which saves time and travel expenses, by approximating distances (6) to address the problem of conflicting session times in different courts, we therefore believe it is important to talk about the remote hearing system. There is no doubt that registering a case electronically has facilitated the procedures for registering a case, as the plaintiff, for example, or his representative, is the one who enters the smart justice system, creates the statement of the claim, and attaches the necessary documents. Fees are also paid through that system, and then the document is announced to the plaintiff electronically as well, and the latter in turn enables respond to the case filed against him electronically and include all documents to respond to what the plaintiff claims accordingly, the smart justice system actually saves time in the matter of announcement, if the defendant is notified quickly through the smart justice system as long as the defendant’s data that was included in the electronic system is correct.

The problem here is that if the defendant’s personal information is submitted incorrectly, the electronic system will not function properly. Because of this, the court authorities are compelled to notify the defendant about the case by other electronic means, such as phone calls or emails, which highlights even more inefficiencies in the system. This
confirms that the smart electronic system is not 100% effective in carrying out the informing task. Actually, the incorrect entry of personal data is the reason for this issue rather than the electronic system itself.

In light of this, we believe that in addition to having phone numbers, everyone must create their own emails and formally register them in records that have been set up for that purpose. This will allow us to create a database of phone numbers and emails for every citizen of the country. We also recognize the necessity of connecting the Federal authority for identity and nationality system to the smart justice system. Under the pretext of being the main hub for the database of data related to every individual living inside the borders of the United Arab Emirates.

2.2 Remote court hearings:

The UAE law allows hearings to be held via remote communication technology, whether in civil cases or criminal cases, while giving the defendant or accused the right to request that the court conduct the trial in person, and the court must respond to this request, taking into account the requirements of the conduct of work before the judiciary. Since the guarantees for conducting a fair trial are available in terms of enabling the parties to the case to exercise the right of defense freely, and ensuring the security of information in terms of registering and saving litigation records electronically before transcribing them, they have the status of confidentiality and may not be circulated, accessed, copied or deleted from the electronic information system except with permission from the competent court, according to the circumstances. Holding the hearings via communications technology achieves the following benefits:

- Facilitating in the litigation procedures.
- Time savings, quickness of procedures, and quickness of sentencing.
- Limiting the burden on witnesses, experts, interpreters, opponents, and witnesses by not asking them to travel.
- Enhancing collaboration between national and international judicial authorities.

The smart justice system in the UAE has provided easy procedures for accessing remote court hearings, so how can remote court hearings and meetings be attended.

The user, whether he is a main party such as the plaintiff, defendant, or lawyer in the case, or not, such as witnesses, the prosecution, and the expert, enters the website of the Ministry of Justice and its link (https://www.moi.gov.ae) and then logs in through the registration window on the case filing system. After entering the username and password that the person concerned created then he chooses to enter the court hearings and meetings portal, a page appears to him from which he chooses the type of the hearing, then a list appears through which he determines the hearing number and chooses whether he is an original party to the case or not.

Next, when he submits a request to get the authorization code from his account in the smart justice system, he enters the authorization number that he got from the court, after that, he clicks on "search for remote hearings." A screen with some information about the remote hearings must be filled out, like the type of meeting. He types "court hearing," for example, chooses the meeting number, and responds to a question, does he have a legal role in the CASE? After selecting the case type (civil, commercial, labor, etc.), he inputs the authorization code that the court has given him. Following the display of the case's details (number, court location, and type), he clicks the "attend meeting" button. The system then asks him to select how he wants to attend the hearing; and he has a few options: either download the Microsoft Teams application to the device in question, continue attending the hearing without downloading the application, or select to open the program using the installed Teams application on the device. After that, the user will be taken straight to the Microsoft Teams application; all he needs to do is type his name and description and click the (Join Now) button. In the meantime, the user concerned will be directed to the virtual
waiting room, he must wait until the court allows him to attend the hearing, and he must fully comply with the court’s instructions.

Even though remote attendance is relatively simple, there are still a lot of challenges associated with it, particularly when attendees lack computer skills and access to the Microsoft Teams program. Additionally, since UAE law does not require that cases or appeals be filed through legal representation before Emirates courts, parties may choose to have spouses, in-laws, or other relatives—up to and including the fourth degree—represent them in court. The filing of appeals and requests before the Federal Supreme Court is an exception to this rule, as it can only be done by a lawyer who is permitted to appear before the court. (9)

In addition, many people do not have the means to obtain computers and smartphones that enable them to use the smart justice system with ease, which leads them to resort to Enjaz office (Government Transaction Center) that ask to complete their transactions in exchange for high wages that are not affordable for everyone, in order to help them file the cases, follow up on them and enable them to attend remote court hearings. It follows that no one uses resorting to the smart justice system and this violates the right to resort to justice.

In light of the aforementioned, we believe that a remote trial should only be used once all parties to the case have been fully satisfied. This proposal would consider how financially able the parties are to deal with smart systems in the area of remote trials, and specifically that smart systems in the justice system necessitate the provision of electronic devices, such as computers and smartphones, that are connected to the Internet. Undoubtedly, the cost of these devices and Internet subscriptions is high and bringing legal action online and participating in hearings from a distance cannot be an alternative for bringing legal action conventionally and attending in person at the hearing, otherwise many people will be deprived of their constitutional right in resorting to the judiciary.

3. THE ROLE OF LEGAL INFORMATION SYSTEMS IN LEGAL RESEARCH:

The information era of today is marked by a qualitative shift in the amount of documents available on the network and the diversity of their contents, this has altered the idea of search and retrieval from the process of finding and accessing information to one in which the beneficiary must choose and select the most relevant information to begin working on a project or make a decision. Researchers in a variety of sciences navigate this network, bouncing across borders and countries in an instant, saving a great deal of time. Through systems that hold a vast amount of information, networks allow him to communicate with information units remotely without having to move from his residence or place of work. (10)

As a result, the legal information systems dispersed throughout the Internet have grown to be the world's largest library, containing complete references from both ancient and modern books, scientific dissertations, and all periodicals dealing with different areas of law. In addition to publishing activities worldwide, the network also includes recent topics that are hard to find in traditional libraries. Because of this, there are an increasing number of users worldwide, necessitating knowledge seeking, scientific study, learning, and technological control on the part of each individual. (11)

Comparative research sources include a wide range of topics, including legal information systems. By using search engines, researchers may verify the currentness of these sources even when processing the largest index and data store. To get good research results, the researcher must be knowledgeable about a variety of different instruments, how to distinguish one from the other by its unique qualities, and how to utilize these characteristics. In addition, he needs to be knowledgeable about research techniques and cautious when selecting terms related to his subject.

There are multiple techniques for gathering data over the Internet, and these techniques are not exclusive to any particular science but rather encompass all scientific domains, including the legal sciences (12), and among them are the following:
Using Internet search engines, the most well-known of which is Google, to find what is on the network and what the researcher is looking for. When you type one or more (keywords) for any legal topic, search engines—which function as online directories or library staff—can provide you with a quick response to the title you're looking for. They can also tell you whether an address exists or not and provide you with access information if it does.

Internet guides, such as those that focus on specific legal topics (university guides, researchers' societies guide, scientific fields guide, etc.).

-The interview using various internet programs.

-Electronic libraries available on the internet.

-Electronic forums (E, Formus) are sites where a variety of network users with common characteristics and interests can exchange ideas and opinions. These users can join by creating a free account, after which they will receive a (password) and their own nickname. Examples of these users include researchers in the legal field, students at different levels, university professors, and judges.

The Internet assists the scientific researcher in collecting the scientific material necessary for a master's thesis, a doctorate, or a research conducted by a university professor. We can almost be certain that there is no scientific research except by using the Internet, as many publishing houses often publish on their websites on the international network the titles of the books they have. Research papers, books, master's theses, and doctoral dissertations are either freely available for download, which is common in research and books, or they are provided in exchange for payment in the form of credit card payments.

Many universities in the world, especially the universities that have a global ranking in the field of scientific research, namely the universities of the United States, the universities of Canada, the universities of the United Kingdom, and the French universities, have resorted to creating what is called a Password. Through this password, the researcher can enter the university library whenever he is able to obtain a Password in order to carry all the information, research, and doctoral and master's theses related to the researcher's field of specialization, and this is also the case in Arab universities and among the most important scientific research, sites on the Internet are:

**Research sites at the USA universities:**

[www.collegenet.com](http://www.collegenet.com)

[www.collegereview.com](http://www.collegereview.com)

[www.educationconnect.com](http://www.educationconnect.com)

[www.embark.com](http://www.embark.com)

[www.gradschool.com](http://www.gradschool.com)

[www.petersons.com](http://www.petersons.com)

[www.lawreview.com](http://www.lawreview.com)

[www.iata.com](http://www.iata.com)

[www.aboutlaw.com](http://www.aboutlaw.com)

[www.legalwks.com](http://www.legalwks.com)

[www.ntsb.com](http://www.ntsb.com)
www.bankruptcy-financiallaw.com
www.probertylaw.com
www.scolitorlawact.com
www.arbitrationact.com

-Research sites at the UK universities:

Cambridge University
www.cambridge.com

Oxford university
www.oxford.com

Southampton University
www.southhampton.com

University of Bristol
www.bristol.ac.uk

Brunel University
www.brunel.ac.uk

Imperial College London
www.ucl.ac.uk

University of Leeds
www.leeds.ac.uk

University of Nottingham
www.nottingham.ac.uk

Cardiff University Wales
www.cardiff.ac.uk

Plymouth University
www.plymouth.ac.uk

Bangor University
www.bangor.ac.uk
2. Almanhal
   https://www.almanhal.com/ar

3. University of Sharjah Journal of Legal Sciences
   https://spu.sharjah.ac.ae/index.php/JLS

4. Emirates University Journal of Legal Research
   https://www.uaeu.ac.ae/ar/cl/sljournal/

5. Cairo University
   http://www.umi.ac.ma/?categories-news

6. Ain Shams University - Digital Library
   http://www.asu.edu.eg/arabic/article.php?action=show&id=241

7. Federation of Egyptian University Libraries
   http://srv4.eulc.edu.eg/eulc_v5/libraries/start.aspx

8. Middle East University - Amman

9. Center for Economic and Social Studies and Research - Tunisia

10. Administrative Law Research Unit in Sousse
    http://www.urdas.fdseps.rnu.tn/

11. University of Tunis El-Manar

12. Scientific Researcher website - via Google
    http://scholar.google.com.eg/schhp?hl=ar

13. Google Books website
    http://books.google.com/bkshp?hl=en&tab=wp

14. A website to communicate with researchers
    http://www.researchgate.net

15. A website to communicate with researchers
It is worth noting the necessity of clarifying the impact of artificial intelligence on legal research, as it is known that artificial intelligence has constituted a qualitative leap in the world of software and information systems in general, including legal ones, by providing systems capable of providing the necessary legal studies to serve legal research. Artificial intelligence helps in simplifying scientific issues for the researcher, and integrating artificial intelligence into scientific research depends on the necessity of providing the necessary digital equipment, the efficiency of researchers in using it, as well as the necessity of providing a legislative environment that protects the huge data that is dealt with.\(^{(13)}\)

Despite the advantages provided by the use of artificial intelligence in scientific research, at the same time it raises many concerns that require proper treatment. These concerns, we believe, include the increasing dependence of researchers on the outputs of artificial intelligence and the diminishing ability of researchers to think and analyze, thus reducing the spirit of research and human skills, which would marginalize human intelligence in favor of the intelligence of man-made electronic systems. As long as the result that is reached at the end of the research is created by electronic programs, this in itself would sound the alarm for the future of legal research. The legal researcher must have free will and sound scientific awareness regarding the issues he is researching, in order not to reach false results or inaccurate analyzes in a way that is inconsistent with the foundations of legal research. It is unacceptable for the legal research process to be carried out through the effort of the researcher while using the information and data provided by artificial intelligence systems.

**CONCLUSION**

The information system is defined as a set of elements that allow the collection, classification, processing, and dissemination of information about a legal or factual issue, and the use of computers, electronic means, and means of communication makes it possible to automate processes and give them a tangible character, such as the system for filing a lawsuit electronically, and the system for attending remote court hearings, and information systems related to publishing legal content, such as databases related to legal research, legal books, and legal dissertations.

There is no doubt that the use of these legal electronic information systems has contributed to the dissemination of scientific research worldwide, and has contributed to improving the quality of judicial work by allowing the case to be filed and registered electronically. These electronic systems have also contributed to allowing opponents to attend sessions remotely, which has spared them the hardship of moving from one place to another. Despite these aforementioned advantages, we believe that the use of electronic information systems in legal sciences has some disadvantages, perhaps the most important of which are:

- Allowing cases to be filed via an electronic system and people attending remote court hearings without requiring the adversaries’ acceptance violates the principle of the right to resort to justice.
- The high cost of filing cases electronically and attending remote court hearings.
- Failure to link the smart justice system with entities that maintain information or data about all people present in the territory of a particular country makes it useless, which results in prolonging the conflict and searching for traditional tools to announce attendance at the courts.
- The cost of a scientific research database subscription
- Risks associated with artificial intelligence in research: if it were used exclusively in scientific studies, researchers would lose their capacity for investigation and analysis, and machines would eventually take the place of humans in extracting the results of practical research.
Based on the above, we recommend the necessity of maintaining the idea that the smart justice system, at the same time, must not replace the traditional system of justice, but rather they must work together to serve justice and simplify judicial procedures. As for the level of scientific research, we hope that participation in Databases are almost free, or come with a nominal fee to encourage scientific research, and to place strict legal restrictions on the use of artificial intelligence in the field of scientific research, so that any scientific product whose results are derived by relying entirely on artificial intelligence will not be accepted.

REFERENCES


[2]. See Article 335 of the Civil Procedure Code amended by Decree Law No. 10 of 2017. This law was repealed and replaced by Federal Decree Law No. 42 of 2022 promulgating the Civil Procedure Code, Article 331, published in the Official Gazette No. 737 Supplement, Year 52, dated 10 October 2022. The use of remote communication technologies in criminal trials has also been permitted. See Article 419 of Federal Decree Law No. 38 of 2022 published in Official Gazette No. 737, Supplement dated 10/10/2022.


[7]. Abdullah Muhammad Al-Marzouqi, Electronic Litigation (Smart Litigation 9), and Electronic Litigation (Smart Judiciary): A comparative study of the legislation of the United Arab Emirates with some Arab and foreign systems, Sharjah University Journal of Legal Sciences, Volume 18, Issue 2, December 2021, https://doi.org/10.36394/jls.v18.i2.7 p. 259


[9]. Available at: https://scholarworks.uaeu.ac.ae/sharia_and_law/vol2020/iss82/1

[10]. Article 337 of the Civil Procedure Code stipulates, “Remote communication technology may be used to request or implement representations and judicial assistance with foreign countries, in accordance with the provisions of agreements and treaties ratified by the state.” Article 332 of the same law also stipulates that “proceedings may be taken remotely outside the jurisdiction of the courts of any emirate that considers civil proceedings remotely, and coordination - when necessary - shall be with the competent authority in the emirate in which the person against whom the action is to be taken is located, or in which it is located any documents required to be submitted in the case.


[14]. Munser Khaled and Imad Abdel Halim Ibrahim, previous reference, p. 351.
