

A PROPOSED MODEL FOR ESTABLISHING A DIGITAL RESEARCH PLATFORM IN THE LIGHT OF GLOBAL MODELS AND EXPERIENCES

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Abstract

The study aimed to build a proposed model for establishing a digital research platform in light of global models and experiences, by identifying the role of digital platforms in promoting scientific research, the most important global models and experiences in adopting digital research platforms, and arriving at the proposed model for creating a digital research platform in light of models and experiences. . . Global, and to achieve this, the study relied on the descriptive survey method by monitoring and reviewing previous literature and studies that dealt with digital platforms and promoting scientific research through them. The study came up with a proposed model for creating a digital research platform in light of global models and experiences.

Keywords: Model/ Research Platform/ Digital Platform/ Digital Research Platform/ Global Models and Experiences.

CHAPTER ONE: METHODOLOGICAL FRAMEWORK OF THE STUDY

The first chapter consists of the introduction, the problem of the study, its objectives, importance, and methodology.

1.1 Study Introduction:

The modern technological developments witnessed by the world have revolutionized communication and information technology, which led to the emergence of qualitative changes in many aspects of life at a high pace, as they paved the way for the transition from the industrial society to the knowledge society, this led to the orientation of academic institutions towards the knowledge society and moving away from traditional forms of it, and activating their cognitive and technological capabilities, whether in educational or research activities. Internet technologies and ever-increasing opportunities to digitize knowledge through the transfer of knowledge in new digital forms that make it possible to obtain knowledge from online sources – of course the role of libraries as sources of knowledge is not being replaced.

Few scientific research and studies have talked about digital research platforms and ways to benefit from them, as a study (Fierro et al, 2017) revealed new horizons for international education in the digital age through digital platforms that greatly facilitated students' access to academic information.

A study (Cox, 2017) shows new scientific needs, global events and shifts at the National University of Ireland Galway, and these include: the emergence of digital scholarships, technology appropriate to the research building, investment in digital archives and modernization of digital strategy. A study (Sitnicki, 2018) indicated that current trends in digital research for scientists are: student effectiveness in their curricula at research universities; digitization of scientific information archiving; and the emergence and development of digital scholarships in research libraries. For research universities, the rationale for the need to identify elite research universities.

Digital research is carried out on a larger scale, and involves the use of digital technologies, tools and services as research targets (research in blogs, social networking sites, virtual worlds, virtual communities and instant messaging spaces) as tools for creating innovative methodological practices such as (hardware or software necessary for innovation, design and implementation of research methods) and as an actual field where research is developed and through which researchers can Extract research materials and data as (online datasets and repositories, search engines, data collectors, etc.). Digital technologies can serve as objects, tools, and places to simultaneously search (search the capabilities, content and users of online social networking sites), affecting research design, data collection, and data analysis as well. Tsatsou, 2016.

Researchers around the world face many challenges, from obtaining the necessary funding, to completing research, to communicating with scientific journals and periodicals to review and publish them. But the biggest challenge is to reach out to researchers from the same field for peer review or share research with interested people to evaluate it. This would delay the publishing process for several years, which contributes to hindering research work and not reaping its fruits on time, but the digital revolution has provided better and faster ways to publish scientific discoveries and share ideas and experiences among researchers, including academic communication platforms (digital research platforms); hence the current study to propose a model for establishing a digital research platform in light of global experiences.

1.2 Study problem:

Digital research platforms have shaped a new shape for the current era, changing the way scientific communication between researchers and academics is so, it is not surprising that academic communication platforms – which is a branch of social media – have changed the way academic publishing is in the future and draw a new form of scientific communication. This is certainly due to the great impact it has had on the rapid spread of science, especially in light of crises, including the health crisis (COVID-19). On March 26, 2020, the first defense to discuss a doctoral thesis was conducted online in Erasmus School of Economics in Rotterdam, Netherlands Zhaowen Qian defended her thesis tagged "Time-Changing Integration and Portfolio Options in European Capital Markets", and the growing need to share knowledge and expertise at the global level, working through the virtual environment has become a reality; traditional jobs are receding, especially in developed countries! Through digital research platforms, you can communicate with scientific journals and periodicals to review and publish them, and this service has expanded and includes all areas

of scientific research that can be carried out remotely, such as providing consultations, conducting joint specialized studies, translation services to and from several languages, Arabic language correction or foreign languages, administrative services, social services, and other traditional services that have turned into digital services that take place via the Internet. Hence, the problem of the study can be crystallized in the following main question:

What is the proposed model for establishing a digital research platform in light of global experiences?

1.3 Objectives of the study:

The study aimed to develop a proposed model for the establishment of a digital research platform in the light of global models and experiences, by answering the following sub-questions:

- 1) What is the role of digital platforms in promoting scientific study?
- 2) What are the most important global models and experiences in adopting digital research platforms?
- 3) What are the components of the proposed model for establishing a digital research platform in light of global models and experiences?

1.4 Importance of the study:

The importance of the current study is to provide a basic base on the role of digital platforms in promoting scientific research, and to clarify the importance of the relationship between digital platforms and scientific research, and this will lead to increasing the awareness and keenness of officials to support and strengthen this relationship, and provide all the necessary conditions and capabilities to activate it.

The current study sheds light on the most important global experiences in adopting digital research platforms, to benefit from them in promoting scientific research, and its importance comes from the need for scientific research to be published and marketed, and therefore the current study provides a proposed model for establishing a digital research platform in the light of global models and experiences;

The current study also helps decision-makers to identify priorities and requirements for establishing a digital research platform in light of global experiences, and the current study may interest researchers in the future to study other aspects not covered by the current study.

1.5 Limitations of the study:

- The study focused on studying the role of digital platforms in promoting scientific study.
- The study focused on the most important global experiences in adopting digital research platforms.

1.6 Study Methodology:

The current study uses the descriptive approach, where this approach is based on describing the phenomenon, collecting information and data about it, then classifying and organizing it in a way that helps to reach conclusions and generalizations that help to understand and develop the reality it studies.

CHAPTER TWO: CONCEPTUAL AND THEORETICAL FRAMEWORK OF THE STUDY

2.1 Conceptual framework:

1) Model:

Nasrallah (2010, 130) defines it as "presenting a general picture that seeks to clarify the relationship between the different elements that make up reality, by showing the key roles played by the different elements that make up this reality."

In this study, it is meant as a vision for building a well-defined plan or framework, which provides a future general picture that illustrates the role of digital platforms in promoting scientific research.

2) Platform:

Abdelkader (2021, 9) defines it as "a place where different stakeholder groups come together under clearly defined rules of engagement, in order to exchange ideas, goods, services, and anything else that can be exchanged between one person and another, computers, machines, or devices acting on behalf of humans."

3) The difference between digital platforms and websites:

Many people mistakenly confuse the platform with the site, as the digital platform is also called the digital portal and is always affiliated with a realistic institution, whether public or private, while sites are often limited to the Internet, so it is possible to differentiate between both the platform and the site as follows: (Nouri and Abboud, 2021)

- I- **Digital Platform:** It is a web portal concerned with providing interactive services that vary according to the nature and activity of this platform as well as the information provided through it as well.
- II- **Website:** It is only interested in providing information in one area only or in more than one field, and the site provides interactive services.

4) Digital Research Platforms:

Sitnicki (2018) defines it as a research and educational institution that carries out its activity on the basis of automation of educational and research processes and provides a complete digital cycle for creating, coding, archiving, storing, sharing, retrieving and broadcasting scientific and educational information created as a result of research activities.

2.2 The role of digital platforms in promoting scientific research:

This section deals with the role of digital platforms in promoting scientific research, as follows:

1) Digital Platform Features:

The digital platform offers many services that distinguish it from others, Sitnicki (2018) explains, the most prominent of which are as follows:

- i. Availability of web browsing.
- ii. Provides access to the university network.
- iii. Provides the possibility of a special exhibition for an email to access the digital platform.
- iv. Allows better communication between researchers.

Digital platforms contribute to reductions in administrative transaction costs, and digital platforms help organize and coordinate the technological development of services such as publishing and scientific communication (Asadullah et al, 2018).

Also, the use of these platforms or one of them guarantees you to benefit from the many features they offer, the most important of which is the site (LookInMENA, 2023) as follows:

- The researcher can create his own profile on these platforms, containing his specialization, qualifications, personal information and ways to communicate with him.
- Enables you to upload and share papers published in your name or those that you participated in preparing or reviewing.
- It enables you to stay in touch with researchers and specialists in your field and follow them to see scientific discoveries and newly published works, which accelerates the arrival of new works and their spread in the scientific community.
- These platforms display the number of reads and the citation rate of published papers and research, which helps in knowing the quality of these research and scientific journals published in them and measuring their impact.
- Because collaboration between researchers is so important, these platforms provide a space for discussion and exchange of views and views between different researchers. This provides an ideal environment to ask your questions and concerns about the topics you are working on.

Applications for following up on the latest research

2) Types of digital platforms:

1. There are more than one type of digital platform, and they include: (Nouri and Abboud, 2021, 25)
2. Public platform (horizontal gates): It is the one that any of the Internet pioneers can use, given that it displays general information and contains multiple links, and one of the most important types of public platforms is the one that provides communication and search services, the most famous of which is of course the Google search engine portal.
3. The platform is specialized (main portals): It is the one that is not directed to everyone, but targets only a specific category of web users, and the most prominent examples of this are platforms that provide training courses in a specific specialization, medical platforms and portals, or freelance platforms, and others.
4. Government Platform (Sectoral and Service Portal): It is also known as enterprise portals or platforms, including both public and private sector institutions and companies, and it aims largely to provide interactive services and information to visitors.
5. Portals platform: It is the one through which an indicative list and an electronic directory are displayed that includes all portals and other platforms and perhaps sites on the Internet, where digital links for each platform or portal and brief information about it are added, and that portal is classified and arranged according to the field of specialization of each of them.

3) Areas of use of digital research platforms:

Digital research platforms have a number of areas of use, which are illustrated in the following table Sitnicki (2018):

Table (1) Areas of Use of Digital Research Platforms

Domains	Uses
1) Automation of control systems	Improve efficiency by: <ul style="list-style-type: none"> - personnel management system; - financial management and reporting; - Alumni Management System.
2) Digitization of sources in scientific libraries	<ul style="list-style-type: none"> - improve the efficiency of searching for the necessary sources; - provide the ability to view the sources of an unlimited number of users; - Save (archive) valuable copies in electronic form.
3) Automation of the educational and research process	<ul style="list-style-type: none"> - opportunity to develop curricula electronically and distance learning; - virtual classes and consultations at any time; - Evaluation and confidentiality of the presentation of the points awarded.

Source: (Sitnicki, 2018, 314)

4) Online Teaching	<ul style="list-style-type: none"> - Broaden the audience of beneficiaries or provide broad reach in the global environment; - Wide possibilities for attracting the teaching process of auxiliary materials and methodological developments; - The possibility of offering paid courses to all external beneficiaries,
5) Conduct the final assessment (test, interview, etc.)	<ul style="list-style-type: none"> - increase the flexibility of the research and educational process; - automation of work and evaluation of results; - Uniform tasks, equal conditions for students; - Improve employee working hours.
6) Repository of master's and doctoral theses	<ul style="list-style-type: none"> - automatic verification of the ethics of scientific research; - regulation of directions of scientific research; - The possibility of providing global online access for scholars from other universities.
7) Social networks for researchers and faculty members	<ul style="list-style-type: none"> - search for partners of educational and scientific interests; - Formation of joint teams.
8) Conduct a joint online search in digital networks	<ul style="list-style-type: none"> - optimizing time for communication between researchers; - joint writing and editing of scientific texts; - analysis and discussion of the results of tests and laboratory experiments; - Preparing professional programs.
9) Scientific Data Exchange	<ul style="list-style-type: none"> - seminars, conferences and webinars; - publication of scientific research results via the Internet; - General foundations of statistical and scientific information.

2.3 The most important global models and experiences in adopting digital research platforms:

First: Global models for adopting digital research platforms:

The study reviews three global models for adopting digital research platforms, including a developed model for digital research universities in light of the global trends of (Sitnicki, 2018), the model of the Algerian platform for scientific journals, and the model of research work for students as one of the forms of practical training (the Omani Igad platform) and can be reviewed in detail as follows:

a) A model Sitnicki,2018:

The components of this three-tier model are as follows: Sitnicki, 2018, 315)

The first level: It includes the following digital components:

- 1) Digital Portfolio: It is a collection of digital educational and research materials for scientific and educational staff in research universities, and actually displays the full range of tools and methods used in training and research activities for employees.
- 2) Digital Repository: It is the basis of the digital educational and scientific literature found in the virtual reality archive of scientific libraries of research universities and databases.

- 3) Digital training for teachers and researchers: It is a development process that provides for the systematic upgrading of scientific and educational staff in research universities for the free use of digital technologies in educational and scientific activities.

The above elements represent the first level of the model that reflects the infrastructure and internal processes needed in research universities to enable the introduction of digital technologies.

The second level: It includes the following digital components:

- 4) Online Teaching Platforms: They make it easy to own and use public platforms that act as a means of digital communication between teachers of academic courses and training programs, students and volunteers.
- 5) R&D market: It is an infrastructure that provides effective communication between individuals to perform scientific, research, theoretical and experimental research work, customers, buyers and investors.
- 6) Research Framing: It is the process of mental classification by scientists of sets of digital research information and ideas via digital technologies, and helps scientists to recognize development trends and use of new digital technologies.

The above elements form the basis of the second level of the model in maximizing the benefits and impacts of the use of digital technologies in the educational and scientific activities of research universities and providing a process of rethinking and setting new tasks for digital modernization.

The third level: It includes the following digital components:

- 7) Virtual social networks: A digital infrastructure that provides an instant communication process between teachers and scientists with the aim of exchanging ideas and forming communities that achieve common ideas.
- 8) Digital Research Networks: These are regional, interstate and intercontinental scientific research societies in the digital space, ensuring the exchange of empirical data, laboratory research results and the implementation of joint scientific projects.
- 9) Research Quality Assessment: It is a system that provides assessments of the global importance of scientific research results using digital space tools.

The above-mentioned elements constitute the third level of the model in the international subjectivity of research universities and the development of science through global research activities undertaken within a common framework across borders networks and consortia.

The overall equilibrium of the previous model is ensured by the close interaction of its elements, and the digital space offers unlimited possibilities for the flexibility of these elements and maximizing the effects resulting from their use by research universities.

The previous model can be illustrated in the following figure:

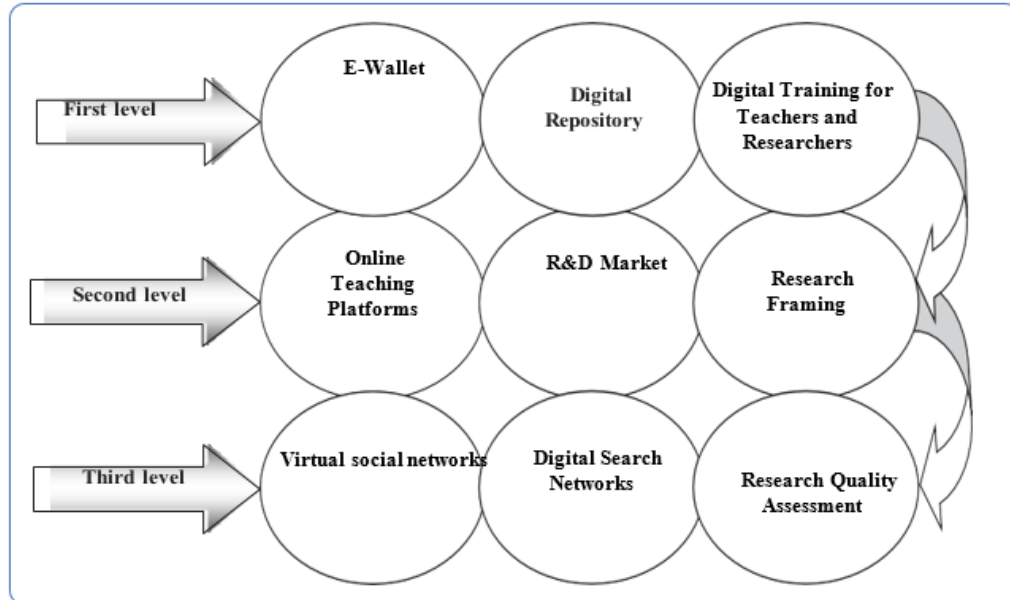


Figure (1) A developed model for digital platforms in research universities

Source: (Sitnicki, 2018)

b) A model for the Algerian platform for scientific journals (ASJP Platform) Journals Scientific Algerian):

Definition: It is an electronic platform for national scientific journals under the supervision of the Research Center for Scientific and Technical Media (CERIST) that aims to enable researchers wishing to publish their research and scientific articles with the selection of the appropriate scientific journal for their scientific and research interests, and the platform also aims primarily to eliminate publishing obstacles suffered by the Algerian academic researcher, such as the anonymity of the fate of the submitted article, bias in the publishing process by the editorial boards of journals, not to mention the lack of communication between the researcher and the journal's work team. And other problems and difficulties. That is, it came as a way to protect researchers from falling into the trap of fake journals or predatory publishers, as it serves as a guarantee that the article to be published reaches the journal, as it is considered the third party between the researcher and the publisher. (Location Algerian Platform for Scientific Journals, 2023)

The most important roles of the Algerian Platform for Scientific Journals (ASIP) in supporting scientific research and publishing are: It is an effective means of introducing scientific production published in scientific journals that have been locked in paper form for a long time. It is also an important tool that contributes to informing researchers and professors of refereed scientific journals to publish their research or rely on it for scientific promotions (Sudus and Rumaysa, 2020, 246).

How the Algerian Platform for Scientific Journals (ASJP) works: The platform consists of three main elements: (Portal of the Algerian Platform for Scientific Journals, 2023)

- 1) The Communication System): It is the platform that connects the author with an editorial board.
- 2) Content Management System): It is responsible for formatting and publishing content.
- 3) The portal of the system (The Portal): The real value of electronic journals lies in access to them with the possibility of downloading, copying, using and distributing them, and the platform portal represents the interface through which these scientific stores are accessed through the search service, whether simple or advanced, and the results are displayed with ease, flexibility and effectiveness.

Through the inspection of the Algerian platform for scientific journals (ASIP), it works through an electronic system through which journals can be structured and organized in order to classify them according to standards, as each journal includes the metadata of what the journal has drawn and published, its scientific specialization, its editorial team, the international standard number (ISSN), the year of establishment of the journal, its issuance periods, data on its supply, the full texts of research and scientific articles, as well as providing the possibility of contacting members of the editorial board, reviewers and article publisher. Sent through the indicator board or what is known as arbitration boards, which are also divided into unit units for journals selected by the researcher and other units.

The Algerian Platform for Scientific Journals (ASJP) offers a number of services that it explains (Sudus and Remissa, 2020, 246) as follows:

- The possibility of opening an account on the platform and multiple options as an author, arbitrator or as a journal manager.
- Recent articles published for ten recent journals on the platform.
- New magazines that have been listed on the platform.
- Provides new real-time statistics on the number of newly published articles
- The ten most downloaded articles across the platform.
- Simple search and advanced search service.

c) The model of research work for students as one of the forms of practical training:

The purpose of research work is to develop the ability of graduate students to be able to make independent theoretical and practical judgments and conclusions; to form the skills to conduct objective evaluation of scientific information and free scientific research and aspirations to apply scientific knowledge in practical activities in the fields regulated by the FGOS of higher education in the relevant field of training; to develop undergraduate competencies and skills for independent research work, as well as research as part of a research team. Students' research skills are also represented in the ability to perform actions consciously in research on the results of cognitive activity, their selection, processing,

analysis, creation, design, preparation, and organization of its main stages through curricula and work programs in disciplines. (Bogatyreva et al, 2019).

Strielkowski (2020) illustrates three main types of people who practice research work as a form of practical training:

- 1) **Lecturers:** They usually participate in giving lectures to students (several lectures a week, several days a week), some lecturers are good public speakers, are popular among their students, and enjoy their work, however, most lecturers lack time to write and publish research papers and many hate this activity. Most (but not all) lecturers often use the same materials as presentation slides (Power Point) which are often outdated and duplicate for many consecutive lecture cycles and years.
- 2) **Researchers:** Writing and publishing many research papers and studies through participations, teamwork and research teams.
- 3) **Entrepreneurs:** The rarest types of academics Entrepreneurs are directors of research centers, professors, deans and consultants. They used to be lecturers or researchers before but they discovered their leadership skills. Many entrepreneurs are proficient in writing and securing grant proposals and obtaining funding for their institutions.

The functions of the research work are also presented to students as follows: (Bogatyreva et al, 2019).

- 1) **Educational:** mastery of theory (scientific facts), methods of practical research, methods of conducting empirical research, methods of applying scientific knowledge;
- 2) **Organizational orientation:** the formation of the ability to navigate sources and literature; develop the skills necessary to organize and plan their activities; selection of information necessary for research work.
- 3) **Analytical and corrective:** student thinking, introspection, correction of educational and cognitive activity;
- 4) **Motivational:** develop interest in science in the research process and cognitive needs; stimulate self-education and self-development;
- 5) **Development:** development of critical and creative thinking, ability to act in standard and non-standard situations, ability to justify and defend their point of view; development of abilities (cognitive, communicative, special abilities, etc.);
- 6) **Nurturing:** the formation of moral and legal identity; the promotion of adaptability in a changing social environment; the formation of adequate self-esteem, responsibility, dedication, deliberate self-organization, courage to overcome difficulties and other abilities and personality traits. The educational function also includes the education of the professional profession and professional ethics.

The Omani Ijad platform is one of the Arab platforms that adopt such a model through its work as it is a virtual membership-based collaborative platform where industry, academia and government can interact and participate in energy-related research and innovation activities, and act as an enabler or marketplace that connects academic research and knowledge to industry needs, and vice versa, and aims to: (IGAD website, 2023)

- Linking academic research to industry needs;
- Support collaboration between industry, industry, academia, academia, industry and academia;
- Maximizing ICV by channelling commercial R&D requests to local academia;
- Disseminate, market and transfer technology for research results.

Bogatyreva et al (2019) mentioned several areas for the application and implementation of types and forms of research activities for students in this model, including:

- Enrich the traditional academic forms of organization of the educational process (lectures, seminars, practical and laboratory classes) with the completion of research-type tasks;
- Develop extracurricular forms to engage students in scholarly activities such as scientific report writing, essays, reporting;
- Holding scientific workshops and conferences; developing projects for grants; elective forms of education; forms of scientific cooperation; and others.

Second: Global experiences to adopt digital research platforms:

The study reviews several global experiences to adopt digital research platforms, divided into the most important experiences of Arab scientific digital platforms, followed by the most important experiences of foreign scientific digital platforms, and finally the most important experiences of digital platforms, and can be reviewed as follows:

Section I: The most important experiences of Arab scientific digital platforms:

This section deals with the most important experiences of Arab scientific digital platforms, which focused on the process of digital learning and training, and they are several platforms in this field, most notably the following:

1. Riwaq platform:

It is one of the most famous Arab platforms specialized in distance e-learning, it was established with individual efforts to cover limited disciplines, and later expanded to include a large number now from disciplines and fields such as humanities, languages, business, technology, marketing, management, programming and other diverse fields. In which specialists present their lectures via videos, then interact with students through discussions that accompany each lecture, and the lectures are divided into small parts, each video does

not exceed (15) A minute ends with an immediate test to ensure that the student gets important information from the lecture. (Menasa website Riwaq, 2023)

2. Edraak Platform:

This platform was established at the initiative of the Queen Rania Foundation for Education and Development with the aim of supporting and advancing the education sector in the Arab world for its crucial role in the development process. Edraak works in partnership with (EDX), one of the most famous e-learning platforms ever, as it is affiliated with the well-known Harvard University, Edraak platform offers distance education courses in various fields and through specialized academics and experts in their fields from different countries of the Arab world and offers accredited certificates. (Menasa website Edraak, 2023)

3. Al-Darin Forum Academy Platform:

The Al-Dareen Forum platform offers courses for distance e-learning, and a variety of educational courses in languages, forensic sciences, law, medicine, management, technology, engineering and other fields.

The platform contains a huge set of courses available for free, which number more than 250 courses in various fields, and the platform also has a YouTube channel through which you can follow a lot of videos in the fields it covers in its courses. (Academic platform website Al Darin Forum, 2023).

4. Ndros:

The Nadres platform offers digital courses for different fields and disciplines such as music, languages, marketing, digital commerce and sewing, with more focus on technical disciplines, computer science and technology, and the platform also offers courses; there are free and paid courses on the platform ranging in price from (10 to 50 dollars) per course, but there is a good selection of free courses in each discipline. The platform was established in 2011 and expanded in 2014 to become an officially registered company from which certificates of completion can be obtained Session. (Menasa website Study, 2023).

5. Hsoub Academy:

This platform is not completely free, but it is characterized by the quality of the content it provides, as well as it is affiliated with one of the most prominent Arab technology companies in the Arab world.

The free section of the platform you will find rich articles and courses in the fields of entrepreneurship, self-employment, programming, design, application development, the web and marketing, which are areas that teach skills and experiences that students can after studying to go out into the labor market and benefit from what they have learned directly.

As for the courses offered on the platform in the form of recorded videos For a group of specialists in different fields, all of which are paid and with a high financial value that may reach more than (\$ 100) per course. (Location Hsoub Academy , 2023).

6. Absar platform:

Absar is a platform specialized in e-learning in the Arabic language, which benefits from the expertise and experiences of those wishing to document it on the platform, and the need for it came from the fact that most of the training courses are highly paid, and this causes an obstacle for those who wish to continue education, as the Absar project combines finding appropriate educational solutions, in addition to keeping pace with the global trend towards developing distance education means.

The Absar platform is directed to all Arab students around the world, and includes a group of Arab academics specialized in various scientific fields, in addition to Certified trainers by international universities. (Menasa website See, 2023)

Section Two: The most important experiences of foreign scientific digital platforms:

This section deals with the most important experiences of foreign scientific digital platforms, which focused on the process of digital learning and training, and they are several platforms in this field, the most prominent of which globally are the following:

1. IDEX Platform:

A non-profit online project, Professor Anant Agarwal and his colleagues from MIT and Harvard have created a platform that offers their courses free of charge online as interactive lessons, and access is open to anyone at the challenge level, established in February of 2012, the MIT course was launched by Professor Agarwal, more than (155,000) learners from (162) countries joined the platform and in 2021 (edX) joined with (U2) In a combination that redefines education's partnership with industry, providing new opportunities to accelerate the education and employment journey. edx website, 2023)

2. Udemy platform :

(Udemy) is one of the most famous higher education platforms that contribute to the training and education of more than eighty thousand visitors per day and more than (19) thousand trainer and professor participate in its programs. Udemy website, 2023).

3. Kocera Platform(Corsera)):

It is considered among the most famous international platforms that offer lessons in different sciences and disciplines, as it has more (121) An educational course specializing in machine learning programmed, business analytics and other machines The courses offer a smooth style and a format dominated by the academic method that makes its lessons very similar to those offered at prestigious universities, and the number of people enrolled in them (2.1) million people This platform also gives learners a certificate. (Website, 2023 Corsera).

Section Three: The most important experiences of research digital platforms:

This section focused on the most important experiences of digital research platforms, as it is noted that the previous two sections focused on the process of digital learning and training only, while this section focused on digital scientific research in all its fields, processes and

activities, and the most prominent of them can be reviewed as follows:

1. Research Gate platform:

The idea for the site came up in 2008, when researchers Dr. Sören Hofmayer & Dr. Sören Hofmayer realized that collaborating with a research fellow on the other side of the world was not easy; they founded the site in collaboration with computer scientist Horst Fickenscher. The site was admired by researchers and has received wide popularity, and is now used by more than (17) million members from all over the world. This platform provides – in addition to features Mentioned below – the possibility of searching for a job in the field of research, and sharing information about the research projects that the researcher is working on. (Research Gate platform, 2023).

2. Academia.edu platform:

A social platform dedicated to academics to share their research work. Launched in 2008 by the British (Richard Price), based in San Francisco, California. The disciplines on the platform vary to include most contemporary sciences, including computer science, health, engineering, physics... This platform attracts about (52) million visitors per month, and has more than (134) million subscribers, adding (26) million research papers. (Academia.edu platform, 2023).

3. Frontiers platform :

Founded in 2007 by two neuroscientists from the Swiss Federal Institute of Technology in Lausanne. Their vision is to empower researchers with academic publishing, communication and making science available free of charge for the benefit of humanity. This platform contains more than (100) thousand researchers in more than (680) disciplines, one billion views and downloads of research and more than one million citations. The academic publishing process is one of the biggest challenges facing researchers, due to the length of this process, which can take months. And even years, which hinders the process of research and innovation. Therefore, Frontiers has provided a solution to this problem, as it is one of the largest open-access publishers. Frontiers has achieved many achievements and received many awards, and has several agreements with prestigious scientific journals such as (Nature and Scientific American), and is a member of several prestigious scientific and academic institutions, including the Open Access Publishers Association and the Scientific Publishing Ethics Committee. (Frontiers platform,2023)

CHAPTER THREE: THE PROPOSED MODEL FOR ESTABLISHING A DIGITAL RESEARCH PLATFORM IN THE LIGHT OF GLOBAL EXPERIENCES:

Scientific research is an important source of information in local and international universities and libraries, especially as it represents the summary of the thought of researchers and scholars, and is an addition to human knowledge. Therefore, universities have been interested in digitizing their information containers in order to disseminate knowledge and expand the benefit of their intellectual production. Digital research platforms

provide theses, scientific theses, books, literature, etc. in digital form or converted to the number form, and in light of the exceptional global crisis and the unprecedented challenges faced by universities in general due to the consequences of the Corona pandemic (Covid 19), it has become necessary to advance scientific research through digital transformation remotely through the use of digital platforms to face those developments and changes in the research system, and digital platforms are working to create a partnership between scientific research and different sectors, which works To provide job opportunities through coordination between different institutions and companies and between people with diverse competencies and skills, and from the above, and in light of the conceptual and theoretical framework of the role of digital platforms in promoting scientific study, and the most important international models and experiences in adopting digital research platforms, all of which formed a background for building the proposed model, and helped to crystallize it in line with the circumstances and nature of Arab society, according to the following:

First: The premises of the proposed model:

The model was built in the light of a number of premises, namely:

- 1) The trend towards digital transformation has become an urgent necessity for researchers and scientific research, to maintain the integrated system of its study.
- 2) See the latest updates and additions that push scientific research forward and give it greater value.
- 3) Follow up on everything new in the field of digital research, and keep abreast of developments in other countries through communication and coordination with researchers of different nationalities.
- 4) Rights that must be preserved in value, avoiding violations and prohibited in the digital environment.

Second: Objectives of the proposed model:

Building the proposed model aims to achieve the following sub-objectives:

- 1) Providing a contemporary vision of scientific research in the digital environment by adopting digital research platforms.
- 2) Coordination between research institutions and other sectors to exchange experiences in the field of digital research.
- 3) Benefit from the results of research instead of being locked in drawers or quoted only as previous studies without referring to their results.
- 4) Provide an opportunity to exchange knowledge and benefit from diverse experiences by registering interest in a specific topic by researchers from different universities.
- 5) Spreading the culture of scientific research and the developments of various research topics on a large scale in society through the active involvement of civil society organizations and the private sector in research work.

- 6) Providing researchers with the skills required for digital scientific research in the field of organizing information sources, especially with the doubling of the amount of knowledge in the digital environment and other necessary research skills.
- 7) Educating researchers that the field of digital research, despite the value it adds to its research in terms of facilitating access to information, remains like its traditional counterpart in terms of the existence of frameworks and controls that must be respected and invoked.

Third: Components of the proposed model:

The construction of the proposed model included a number of components, as follows:

Therefore, the study proposed the establishment of an electronic platform dedicated to scientific research. The proposed platform consists of six basic components:

The first component: the wallet and the digital repository: It includes the management system of published research and university theses in addition to the names of researchers, their specializations and years of research activity, and therefore it represents the research memory. This part is of great importance as it gathers research in one place, documenting what has been done on the one hand, and facilitating the process of researchers to access the required research on the other hand.

The second component: digital training and teaching: It includes a system of managing materials, contents, courses and important research lectures for researchers before starting their work in any research project, as it prevents the repetition of the topics that are studied from the beginning, especially since the scientific publishing process may take a long period of time, which means that the repetition of the topics being studied is very likely. Existing projects may also be allowed to participate as needed.

The third component: The R&D market and classification: It includes the system of managing the proposed research topics and the studies required to be conducted by public and private sector institutions. Interested researchers register their interest in a particular topic, and then research groups are formed that compete in submitting their proposals on how to achieve the required goals and the necessary budget.

Thus, it becomes more like announced tenders so that all interested parties participate in the submission, instead of instructing specific researchers to conduct the required research and studies. To ensure capacity building National and utilization of existing competencies, it can put a number of appropriate requirements in advanced research teams.

Fourth Component: Entities Supporting Scientific Research: The system of managing bodies and sources supporting scientific research includes more than one option that can be implemented, so that the entity that raised the research topic can take care of the funding process, especially since this is the reality now. The second option is the participation of the private sector, in terms of social responsibility. The third option is to seek external funding opportunities, such as a program to fund research cooperation in specific topics, including grants and research loans.

Component V: Virtual Social Research Networks: This part contains a file management system for the findings of regional and international research that can be used in future research, while preserving the intellectual property rights of the researchers concerned.

The most prominent programs used in the analysis of quantitative and qualitative data, the organization and management of references and the names of those wishing to provide in-kind support to researchers such as computers or consumables in laboratories, and the providers of technical and technical support such as sample collection and analysis, whether Free or low-cost, in addition to volunteers and civil society organizations willing to participate, whether they have the necessary experience or not.

This part includes electronic courses that enhance the scientific research skills of those interested, references that enrich their knowledge, in addition to opportunities for graduate students to participate in research projects in exchange for sponsoring part of their study fees through communication with various virtual social research networks.

Component Six: Research Quality Assessment: It is a management system that provides assessments of the global importance of scientific research results using digital space tools.

It also includes ethical and legal identity which promotes adequate self-esteem, responsibility, dedication, deliberate self-organization, courage to overcome difficulties and other abilities, personality traits and research skills.

Fourth: Requirements for the application of the proposed model:

The most important requirements necessary for the successful application of the proposed model can be summarized as follows:

1) Legal requirements:

Scientific research is based on flexible legal rules that accommodate its requirements and keep pace with the demands and challenges of the times, and these laws must be translated into policies, legislation and plans to regulate digital scientific research, and mechanisms must be developed to monitor and follow up the implementation of these laws regulating scientific research.

2) Administrative requirements:

The platform needs an efficient structure and management structure that supervises and manages it, as good management positively affects quality and achieving the desired goals, building an organizational culture that encourages the transfer and exchange of various experiences, and emphasizes creativity and excellence, expanding opportunities for human capital participation in decision-making, establishing a system to activate communication channels between the platform and various sectors of society and international.

3) Material requirements:

The technical and material aspects represented by the requirements of the digital research platform of devices, equipment, technical and physical means and appropriate environments for the improvement of scientific research are of great importance for the preparation and completion of various scientific research.

4) Human requirements:

Providing researchers, specialists and integrated research teams with competencies, qualifications and experience, as highly qualified, efficient and experienced human resources are among the most important inputs and elements of work on the platform.

Fifth: Stages of application of the proposed model:

There are a set of stages to apply the proposed model as follows:

First Stage: Planning and Preparation:

This stage includes the pre-model procedures and includes the actual diagnosis and requirements for adopting the establishment of a digital research platform.

Second Stage: Implementation Phase:

This phase aims to adopt the establishment of a digital research platform according to clear mechanisms and procedures, according to the proposed components of the model.

Third Stage: Post-Development Evaluation and Feedback:

This stage aims to consider the pre-executive procedures to adopt the establishment of a digital research platform in the light of global models and experiences, and work can be done to ensure that all the objectives sought by the proposed model are achieved in accordance with the policies set for it, taking into account the extent of deviation from achieving the goals according to the specified indicators, taking corrective measures and providing appropriate feedback.

Sixth: Obstacles to the application of the proposed model:

Adopting a digital research platform may face a number of obstacles as follows:

1) Scientific obstacles:

1. Absence of clear policies and legislation in the field of digital scientific research.
2. Poor scientific preparation of researchers.
3. Inadequacy of databases in research institutions.
4. Ignorance of research institutions locally and internationally and poor communication with them.

2) Administrative obstacles:

1. Lack of awareness of administrative leaders of the importance of digital scientific research.
2. Inadequate procedures for publishing research digitally.
3. Lack of coordination and administrative cooperation.
4. Inadequacy of the basic regulatory rules for digital scientific research.

3) Digital Environmental Barriers:

1. Weak status of scientific research in society.
2. The difficulty of forming a team of researchers to conduct digital research.
3. Lack of necessary research tools and lack of modern literature and necessary references.
4. The weakness of the scientific and knowledge environment that encourages the ambitions of researchers, as well as the crippling bureaucracy.
5. Poor coordination between researchers and beneficiaries.

4) Self-handicaps:

1. Lack of trained researchers.
2. Lack of joint research projects.

5) Physical constraints:

1. Limited support to attend regional and global conferences.
2. Lack of financial support for scientific research.

6) Obstacles related to scientific research outputs:

1. Lack of balance in focusing on theoretical scientific research versus applied research.
2. Poor application of the results of scientific research.
3. Lack of linking research effort to comprehensive development goals.
4. Deficiencies in linking scientific research with the problems, requirements and needs of the local community.
5. Weak marketing of scientific research results due to the weak conviction of the local community and its various institutions of the feasibility and usefulness of scientific research.
6. Poor productivity of faculty members compared to researchers in developed countries.

7) Societal cultural obstacles:

1. The apparent absence of science's approach, concepts, values, and ethics in our lives.
2. The relative weakness of the concepts and values of criticism in our cultural and social life due to the absence of a scientific vision.
3. Focus on the past and present without considering the future.
4. Weak media interest in discussing scientific research issues.
5. Weak social demand for science and technology.
6. The migration of many researchers and scientists abroad, to improve the material and scientific level.
7. Weak community participation and civil society organizations in activating and activating scientific research.

8) Methodological constraints:

1. Lack of experience among faculty members, especially in the methodological approach.
2. The researcher's scientific background and the extent of his training and qualification to derive research ideas.
3. Lack of knowledge of his field and follow-up of the new and contemporary in it and the lack of desire for renewal.
4. Lack of creativity.
5. Lack of scientific communication through conferences and seminars.
6. Lack of languages and computer use.

9) Psychological obstacles:

1. Poor self-confidence of the researcher.
2. The psychological pressures suffered by the researcher resulting from the large number of burdens.
3. Low level of ambition of researchers.
4. The absence of factors of encouragement and motivation for conducting scientific research.
5. Poor motivation for achievement in the faculty member.

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