## The National platform for theses: How to promote Algerian dissertation fund ?

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### Abstract:

*This study deals with digital academic platforms and their role in promoting Algerian grey literature.  The Research Centre for Scientific and Technical Information (CERIST) has developed the National theses platform.  It's a national reservoir that allows the collection of the huge amount of theses that are discussed annually in Algerian universities. This paper helps to understand the role of this this digital platform in the management, visibility and protection of Algerian grey literature. To conduct this study, we chose to use a descriptive-analytical approach. It allowed us to know how the platform is managed and the actors involved in it. It has played an effective role in promoting Algerian theses and protecting it from plagiarism. The efforts of all parties and the joint cooperation between CERIST and Algerian academic institutions should be combined in order to notify all topics in progress and deposit all defended theses without exception at the level of the platform.*

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## Introduction

During the digital transformation, the world has undergone many changes that have shaken up all vital sectors, including higher education and scientific research. It is therefore imperative for academic institutions to experience this knowledge transformation in dealing with information due to its multiple sources and easy access to it.

To control the huge amount of information they need and produce, scientific and academic institutions have established information systems that facilitate the process of collecting, processing, and disseminating information to various parties in the sector, including professors, students, and researchers.

These systems first appeared during the 1960s (Bouchrika, 2024)and have evolved to the point of being fully automated through the extensive use of computerised information tools, as informatics allows the individual to process information quickly and accurately, and to store it in low-cost locations.

The application of technology to the educational process has changed the way education is delivered. Today we talk about e-learning and distance learning. Online platforms and portals have emerged that provide users with academic material such as articles and dissertations.

The enormous increase in the amount of information resulting from the master's and doctoral theses that are defended annually is difficult to control and manage, prompting university libraries to adopt new approaches in managing their thesis stock. They are using information systems, platforms and portals to connect readers to the notes in their stock. In this context, the Ministry of Higher Education and Scientific Research has asked the Centre de Recherche de l'Information Scientifique et Technique (CERIST) to develop a national platform for recording theses produced in Algerian universities, which will enable information specialists to identify the stock of theses of their institutions, track the topic of the thesis from the time it is notified on the platform until it is defended and published, and provide Algerian researchers with the full text of this huge amount of so-called 'grey literature'.

Digital platforms have become an educational tool for students and researchers to meet their needs and browse available articles and dissertations. From this perspective, this study came to identify the role of the National Dissertation Platform in providing Algerian students and researchers with access to completed and discussed theses and dissertations in Algerian universities, and to highlight its role in promoting Algerian grey literature by managing, tracking, and seeing the topics addressed by Algerian researchers.

The importance of this study lies in the following :
 -Demonstrating the importance and role of the national platform for university theses in promoting, managing and highlighting Algerian university theses
 -Demonstrating the positive impact of using the National theses Platform in providing the full text of dissertations
 -The role of the National theses Platform in creating a communication bridge between Algerian researchers and academic institutions

In this regard, our research aims to answer the following main question: How has the National Dissertation Platform contributed to the management, visibility and promotion of Algerian grey literature?

To facilitate answering this question, we ask the following sub-questions:

1- What is the National theses Platform and what are the main objectives of its establishment?

2- How are dissertations submitted, organised and published on the platform?

3- Has this platform contributed to the visibility of the research carried out by Algerian researchers at the national and international level?

To answer this question , we chose to use a descriptive-analytical approach. The latter is best suited for humanities and social sciences studies. The descriptive method can be defined as a way of describing the subject through a correct scientific methodology, and depicting the results in numerical forms that can be interpreted. (Aggarwal, 2019, p. 34)  It is based on two mechanisms:

Description and analysis, as befits the nature of this type of study. Description is achieved by examining the presence of theses in different languages and disciplines in the platform's archives and the way in which they have contributed to the dissemination and visibility of research at national and international level. On the other hand, the analysis aims to read the content of the platform. In this way, the study seeks to answer the research question.

The description and analysis of the theses notification database allows specialists to know the most important fields of scientific research available in Algerian universities on the one hand, and decision makers in Algeria to know the most popular fields of scientific research by Algerian researchers on the other hand.

Thirteen (13) research areas have been identified in the platform (CERIST, Portail National de signalement des thèses, 2024), in addition to the most important specialisations in Arabic, French and English are highlighted.

## 1.        Theoretical Framework

### 1.1.        Defining Terms :

In order to be able to delve into our current topic, we have decided to define the following important terms:

### 1.1.1  Platform:

A platform is a term used in a wide variety of contexts, by academics and practitioners alike. first of all, a platform is "something on which something else can be built/placed. A physical embodiment of this concept could be a plank or a raised floor. In a more abstract sense, we could talk about a set of ideas forming the basis of a programme in the sense of a political platform, for example" . (Rellier, 2018).

A platform is a horizontal surface, or a structure with a horizontal surface, raised above the level of the surrounding area. It has also been defined as a place for public discussion; a forum. (definition of platform, s.d.)

We can define a platform as a web portal concerned with providing interactive services that differ according to the nature and activity of this platform and the information that is provided through it as well. It is always affiliated with a real-life organisation, whether public or private.

It can also be defined as a system that provides us with easy and familiar tools and highly usable, easily accessible destinations that allow users to easily choose their favourite tools in different situations.

### 1.1.2  Website

A website is a collection of publicly accessible, interlinked web pages that share a single domain name. Websites can be created and maintained by an individual,

group, business, or organization to serve a variety of purposes. A website is also known as a "web presence" or simply "site." (Definition website, 15)

A website is a collection of web pages that are linked together and accessible through a web browser. It is usually designed using programming languages such as HTML, CSS, JavaScript, and PHP. A website can contain information, images, videos, files, applications, and much more.

### 1.1.3 The concept of educational digital platforms:

Digital educational platforms are distance learning platforms, based on web technology and consisting of a coherent technical and commercial offer of access to the universe of interactive or non-interactive distance services, broadcast or provided online, which may be paid for or free. With limited or unlimited access, this offer is based on the development of a community of users with each platform operator establishing a direct official link, enabling a large amount of information to be integrated quickly and efficiently (Rui Du, 2023).

It can also be defined as an interactive learning environment and the use of web technologies, combining the characteristics of electronic content management systems and social networks. It allows learners to publish lessons and objectives, set homework, apply educational activities, and communicate with teachers through multiple technologies. It also allows teachers to conduct electronic tests, distribute roles, divide students into work groups, support the exchange of ideas and opinions between teachers and students, share scientific content and allow parents to communicate with teachers and see their children's results, all of which contribute to high-quality educational outcomes.

### 1.1.4 Information System

An information system is a combination of software, hardware, and telecommunication networks to collect useful data, especially in an organisation. (Mukherjee, 2022)

It is a set of interrelated elements that work together to systematically collect, process, store and distribute available information about a subject in order to support decision-making, to support regulation, control and analysis in the organisation and to build a clear current and future perception of the subject matter.

It can be defined as software that is used to archive, manage and organise data and obtain outputs through certain procedures that are created according to the workflow of any organisation.

It is an organised procedure for collecting, processing, storing and retrieving documented information to satisfy various needs and make appropriate decisions.

The life cycle of information systems consists of:

### A-Inputs (data or raw materials):

Inputs are data such as employee numbers, employee names, phone numbers, residential addresses, job numbers, everything related to data that can be entered into the system. Within the framework of an information system specialised in thesis, the inputs are: Thesis title, researcher's name, specialisation, institution name...

### B- Processing process:

The processing process means taking the appropriate actions for the data according to the instructions, and the appropriate actions are taken either by an electronic system, or a manual system, each according to the system in which it works. The processing of grey literature includes the codification of keywords and summaries using special tools and techniques, including codified indexes.

### C- Outputs (information or products):

After the input and processing process, the output process comes, where the product or reports are output in order to make the decision as required and as required by the work, as well as the standards agreed upon within the system. One of the most important outputs of the thesis management system is the provision of a bibliographic record of the thesis with the full text of the thesis.

### D-Feedback:

Feedback refers to the feedback on the outputs, and also returns in case the conditions do not match the agreed upon conditions, and returns to be re-entered, processed and then output in the required form.

The main objective of this process is to improve the product in line with the desires of customers and beneficiaries, or to improve the performance of the organisation's administrative work and accuracy in producing reports and managing data as required.

### 1.1.5  The concept of Grey Literature

It'an"information produced on all levels of government", academia, business and industry in electronic and print formats not controlled by commercial publishing" ie. where publishing is not the primary activity of the producing body." (Finding and using grey literature as a research resource, 1997)

So, grey literature refers to publications that are produced outside traditional publishing and distribution channels, including administrative reports, government documents, international agreements, newsletters, speeches, etc. If we want to list everything that is published outside the traditional distribution channels, we find that the list is long and includes the following:

- Graduation thesis (Masters and PhD) - Conference papers - Articles and journals - University publications - Study materials - Media materials - Reports - Research plans (questionnaires, studies and analyses) - Websites (blogs, forums, institutional websites,...).

### 1.1.6 Doctoral Dissertation

A doctoral thesis is an examination that allows a researcher to obtain a doctoral degree. This is an important editorial process that requires significant research and long-term investment.

Deciding to undertake a doctoral thesis is not an easy decision. It is a real personal, professional and intellectual commitment that lasts (approximately) 10 years after the baccalaureate

The skills needed to complete a doctoral thesis: (Debret, 2020)

- A good research methodology.

- Publish results.

- Join a research team and develop scientific problems.

- Deepen theoretical knowledge.

- Know how to read, analyse and synthesise scientific data.

- Master scientific communication tools.

## 1.2 Characteristics of an online platform

The most important characteristics of e-platforms can be mentioned below:(OECD, 2019)

- Quick and easy access to information and services online

- Providing an interactive and participatory environment for users

- Providing effective means of communication and knowledge sharing

- Achieving social communication

- Increase efficiency and save time and effort for users


## 2.2 Types of digital Platforms

There are many types of online platforms, in the context of this research, we will only mention two types: (OECD, 2019)

### 2.2.1 Public platforms:

It includes general information and contains multiple links, and the most important types of public platforms are those that provide services to Internet visitors, communication and research, the most famous of which is, of course, the Google search engine portal.

### 2.2.2 Specialised Platforms) Professional and educational):

Targeting only a specific category of web users, they are the ones that are not directed to everyone. Among the most prominent examples of this are platforms that offer specialised training courses in a specific discipline or medical platforms and portals, or self-employment platforms, scientific platforms and others, as they provide information in a specific subject area and are prepared by specialists in the subject area, such as libraries and information specialists, and they serve the categories of researchers, students and specialists.

Examples of specialised platforms in Algeria, especially scientific ones, include the ASJP journals platform and the PNST thesis platform (CERIST, 2024). Both platforms provide Algerian professors, students and researchers with a huge amount of academic research in the form of articles as well as master's and

doctoral thesis. Access to these specialised platforms is only possible through a personal account opened at each researcher's affiliated institution.

## 2.      Applied framework

In this research, we chose to shed light on one of the most important specialised platforms in Algerian academia: the National thesis Platform. It is considered a national reservoir of Algerian grey literature.

### 2.1 : The National Theses Platform: The information system specialised in Algerian grey literature

The National Thesis Platform (PNST) is a tool that provides access to the scientific output of researchers in the form of theses (master's, doctorate, LMD). It covers all stages in the production of a thesis, from notification of the subject to approval of the thesis, then its defence and finally its publication.

In March 2014, at the request of the supervisory authority, the CERIST Scientific and Technical Information Research Centre developed this platform (CERIST, Portail National de signalement des theses, 2024), as a comprehensive repository of research works and a link between researchers and the national stock of theses in Algeria.

The platform aims to achieve the following objectives: (CERIST, Portail National de signalement des thèses, 2024)

* Exclusivity and protection of intellectual property.
* Creating networks for research and researchers
*The platform is a comprehensive repository of research in progress in Algeria and dissertations under discussion.
* Accelerate the process of approving research topics (Master's and PhD)
* Facilitate the process of depositing defended thesis
*Dissemination of research across the national territory
*Avoid duplication and plagiarism
* Providing access to the full text of the thesis
*Ensure permanent archiving of research work.
* Used as a base for research mapping and researcher networks

The National Thesis Platform is an efficient way to access the scientific output of researchers in terms of dissertations:

\* All master's and doctoral thesis in progress in Algeria

\* All master's and doctoral thesis defended in Algeria with access to the full text.
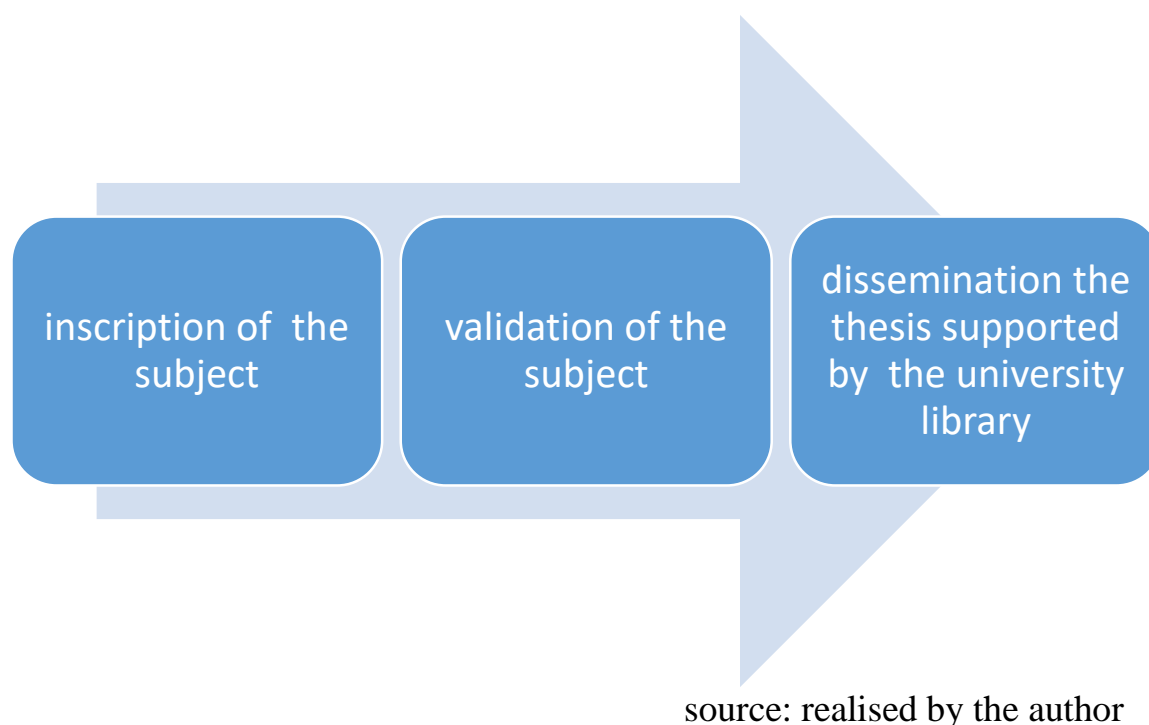
## 2.2 Stages of the thesis notification process in the platform

The success of this platform requires the efforts of two major departments at the university, namely: (CERIST, Portail National de signalement des theses, 2024)

- The post-graduate department to inventory all post-graduate research topics.
- The Central Library for processing and publishing the thesis.

The figure below shows the important stages that a thesis goes through at the level of the National Thesis Notification Platform.

**Figure 01: Stages of the thesis notification at the platform**



inscription of the subject

validation of the subject

dissemination the thesis supported by the university library

source: realised by the author

The creation of the National theses Platform required the combined efforts of several organizations, namely: (MESRS, 2024)

- Ministry of Higher Education and Scientific Research
- Research Centre for Scientific and Technical Information (CERIST)
- 54 universities
- 09 University Centres
- 37 National Higher Schools
- 12 Higher Normal Schools

## 2.3 The importance of the National Theses Platform as an information system

Among the  challenges raised by the National theses Platform as an information system are the following: (CERIST, Portail National de signalement des thèses, 2024)

- Valuing Algerian theses and contributing to its national and international visibility.

- Legal protection of the thesis: This is based on the provisions of Decree  No. 153 of 14 May 2012 on the establishment of a central file for the storage of theses and how to enrich and benefit from it. Registration on the platform gives the researcher the right of precedence over the subject of the thesis.

- The possibility of remotely tracking the thesis topic from the time it is notified on the platform until the thesis is defended and published

- Remote access to the full text of the thesis: It allows beneficiaries to view it remotely, and a large number of people can view the same thesis at the same time, because this system is multi-user, which expands the scope of benefit, as it is not limited to place and time, as the platform site works throughout the day and night hours and all days of the year without stopping.

- Ease of search: The National thesis Platform allows easy searching of the dissertation collection. It offers a multi-criteria search. It can be either by a word from the title, subject, thesis author, specialisation, institution...

- Efficient use: The platform enables efficient use of theses, as it provides the possibility of storing and retrieving a huge amount of thesis.

- Ease of communication and sharing: The platform seeks to create communication networks between researchers and university and research institutions

 - Minimise paper consumption: The use and consumption of paper can be minimised, which reduces the cost of paper and saves storage space.


## 2.4 Modules of the National theses Platform:


The thesis platform follows the thesis circuit from registration of the subject, its validation by the scientific council, then the defence of the thesis and finally its distribution by the university library. The following is a summary of the platform's main modules: (CERIST, Portail National de signalement des thèses, 2024)

2.4.1 Notification of topics in progress:

Notification of subjects in progress is an important scientific practice in the dissemination of research in the form of theses in Algeria. This approach guarantees the exclusivity of the doctoral student's intellectual property.. For this purpose, a platform has been put at the disposal of dealers under the following web address:

 **http://www.pnst.cerist.dz**

Browsing the database available on the platform's website is open to all its users (researchers, supervisors, the scientific community...). This enables them to accurately recognise the status of research on dissertations at the national level.

How are research topics notified on the platform?

Topics in progress are notified in two phases:


The first phase:

- The PhD student receives a special account (username and password) to notify his/her topic. This account is granted by the postgraduate department of the institution.

The second stage:

- Students themselves or a designated member of staff in the Postgraduate department can report current subjects by filling in a special electronic form available on the platform. The student can make changes before his/her topic is approved.

2.4.2 Approval of topics by the Scientific Council

The topic validation process is one of the most important stages that a topic goes through in the platform.

How are research topics validated at the platform?

There are three stages in the validation process:

The first stage:

- The topic goes through a verification phase at the database level for topics in the process of being finalised or discussed. This function is performed by the verification officer (a member of the Scientific Council or a staff member from the department.

Second phase:

- The Scientific Council examines the result of the verification to make a final decision on the topic.

Third stage:

- The Scientific Council's decision (approval, rejection or request to change the topic) is placed in the designated area of the online form for the topic.

**2.4.3 Deposit the thesis at the University Library**

One of the main objectives of the platform is to ensure the permanent archiving of theses and the visibility of research work at the national and international level. This justifies the necessity of depositing an electronic copy of each defended thesis in the national thesis archive.

How are defended theses deposited on the platform?

The electronic version of the thesis is deposited and processed in the Algerian Common Catalogue CCDZ.

The librarian in charge of depositing the theses must have an account on the catalogue website.  In order to deposit and process the defended theses that have already been deposited by the student in the central library of the institution. The links to the thesis can be found on the National Thesis Platform website, where the full texts can be examined.

## 2.5  The National Theses Platform: A management tool to track and visualise Algerian theses

One of the main objectives of the National theses Platform is to manage and track the Algerian dissertation archive from the selection of the dissertation topic until it is published on the platform to be exploited and downloaded by Algerian users. Researchers and interested parties outside Algeria can also  access the topics that attract Algerian researchers and students. As a result, the National Thesis Notification Platform has been named the Algerian Academic Research Dashboard in the field of theses.

Specialists, researchers and students can benefit from the platform as follows:

1- Placing the academic institution's thesis archive on the platform to enable researchers to access it. This process will spread research across the national territory and avoid duplication, in addition to avoiding the theft of research topics. Publishing and displaying research in an organised legal framework is the most effective way to protect it from theft and plagiarism.

2- Accessing research topics addressed in other academic institutions and downloading the full text of discussed theses. This process will create networks for research and researchers.

3- Knowing what language is most used by Algerian researchers during the completion of their doctoral thesis research

4- Knowing the tendencies and trends of the Algerian researcher with regard to the topics he/she seeks to research.

To enable Algerian specialists and researchers to benefit from this national reservoir of theses, and to ensure the smooth functioning of the notification of topics via the platform, a multidisciplinary team (computer science, law and administrative sciences, library science and documentation, translation) was created at the Research Centre for Scientific and Technical Information

(CERIST). The latter was tasked with developing the platform, managing it and training its users.

As a result, this team has conducted regular training sessions for librarians and post-graduation staff. It includes the following stages: (CERIST, Portail National de signalement des theses, 2024)

1- Creating user accounts for the users of the platform (postdocs, master's and doctoral students, central library administrator)

2- Entering master's and doctoral subjects in the process of completion

3- Entering the full text of the defended thesis in the platform

4- Indexing the defended theses

The team at the research center is constantly accompanying the documentary units to enable them to use and benefit from the platform.

## 2.6 Platform in figures

Since its inception in 2010, the platform has witnessed a great demand from Algerian academic institutions. Below we present these statistics showing the extent to which universities, schools, university centers and institutes have participated in its enrichment. (These statistics are taken from the National thesis platform  website and are set as of August 2024) (CERIST, Portail National de signalement des theses, 2024).

### table 1: Platform statistics

| number of theses defended | number of theses in progress | theses with full texts | theses in arabic | theses in french | theses in other languages | Total number of theses |
|---|---|---|---|---|---|---|
| 144116 | 85947 | 82826 | 106162 | 105657 | 4990 | 230063 |

Source: www.pnst.cerist.dz

The National thesis platform is the first of its kind in Algeria. It is the national reservoir of doctoral and master's theses. The concerted efforts of its stakeholders made it possible to identify 85947 topics.

This process is compulsory for every doctoral researcher before embarking on the research topic. As for the defended theses, they amounted to 144116 theses written in Arabic and foreign languages. Once the master's and doctoral thesis is defended, the university's central library puts a copy of the thesis in the portal. This number is constantly increasing due to the large number of theses defended annually in Algerian universities.

The use of this platform as a reservoir of Algerian grey literature has an important and positive impact on the research topics addressed by Algerian researchers.

This platform has contributed greatly to the management of theses and their dissemination to researchers both inside and outside the country.

In this regard, the platform has provided many advantages to serve the scientific research carried out in Algeria, for example:

-Promoting the Arabic language as one of the most important features of the Algerian identity and its use by Algerians in various areas of their lives (daily and professional), especially in the field of scientific research.

- Promoting Algerian scientific research, especially those related to the completion of master's and doctoral theses and making them available to beneficiaries at the national and international levels

- Work to develop the Arabic language in order to increase the number of its users and contribute to its dissemination.

-Working to create a national archive of theses

-Providing theses as one of the most important sources of scientific and academic research

- Work to implement a zero-paper policy in Algerian academic institutions

- Achieving cooperation between scientific and academic research institutions at the national and international level

- Assisting academic institutions in facing the requirements of the digital age by meeting the needs of researchers related to theses as a main source of research

- Long-term preservation of Algerian theses

-Valorising Algerian research.

**Conclusion**

Specialised scientific platforms have imposed their existence as a vessel for the disseminating of scientific and technical information and it promotion to its users. Development of digital tools have revolutionised the production and use of scientific and technical information which is the basic building block of the knowledge society. The Research Centre for Scientific and Technical information develops it through:

- Pooling resources, skills and teamwork to promote scientific research in Algeria

-Developement information systems that facilitate access to scientific and technical information. The National theses Platform is a link between Algerian researchers on the one hand, and a tool to deter all attempts to steal or plagiarise research topics on the other hand.

The national theses platform is just one example of a national reservoir at the service of researchers and scientific research in Algeria which guarantees the archiving and protection of theses, and also, the availability and visibility of this source, that is classified as grey literature.

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