



**CENL**

Foundation Conference of European National Librarians

# **DIGITAL CULTURAL HERITAGE**

**OR:  
E-LEGAL DEPOSIT IN  
EUROPEAN NATIONAL LIBRARIES**

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Digital Cultural Heritage or:

E-Legal Deposit in European National  
Libraries

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E-Legal Deposit in European National Libraries**

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# Contents

Preface .....	3
Minna Karvonen: Digital Cultural Heritage - Connecting Times, Ideas and People .....	5
Linda Arnold-Stratford: The Inspiration of Collecting and Preserving our Nations' Written Heritage - Findings of the 2023 UK symposium .....	15
Gilles Pécout: BnF's Digital Legal Deposit – Update.....	17
Frédéric Lemmers: The Implementation and Evolution of Digital Legal Deposit in Belgium .....	21
Anna Chulyan: E-Legal Deposit in Armenia – Ensuring the Preservation of Digital Publications .....	25
Tamara Butigan: e-Legal Deposit in Serbia .....	33
Kristel Veimann: Estonian Electronic Legal Deposit .....	35
Cornelia Diebel: Let the Music Play – the Collection of Electronic Music Files at the German National Library (DNB) .....	39
Carlo Blum: Legal e-Deposit (Luxembourg) .....	43
José Luis Bueren: E-Legal Deposit (Spain).....	51
Taner Beyoğlu: National E-Legal Deposit System - From Legal Framework to Library Practices (Türkiye).....	53
Contributors .....	62

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# Preface

For centuries, national libraries have played a vital role in preserving the cultural and intellectual heritage of their countries, traditionally through the legal deposit of printed books and other physical publications. With the rise of digitisation and digital publishing, their role has expanded considerably. Today, the issue of legal deposit for digital publications has become a central concern for national libraries around the world. Traditional legal deposit legislation, originally designed for tangible materials, needs to be adapted to the digital landscape, requiring new legal frameworks, technical infrastructures and institutional cooperation.

Digital publications often exist in dynamic formats, can be modified or deleted without notice, and may be stored on servers outside national jurisdictions. These realities present significant challenges and call for innovative solutions for collection, preservation and long-term access.

Legal deposit in the digital realm requires careful balancing: between preserving digital materials and respecting copyright and licensing agreements; between facilitating public access and managing technical and security infrastructure; and between existing legal and institutional frameworks and adapting to technological change.

Recognising the importance and urgency of these questions, the Conference of European National Librarians (CENL) made digital legal deposit the central theme of its 2024 Annual General Meeting, hosted by the National Library of Poland in Warsaw.

The papers presented here reflect the current state of electronic legal deposit across a number of European national libraries. They offer valuable insights into the challenges and strategies shaping our collective efforts to safeguard digital cultural heritage.

We would like to thank all contributors to this conference for sharing their knowledge and experience so generously. Their input has helped to advance an essential dialogue for the future of national libraries.

Frank Scholze,  
Director General of German National Library,  
Chair of CENL



# Minna Karvonen: Digital Cultural Heritage - Connecting Times, Ideas and People

## Megatrends

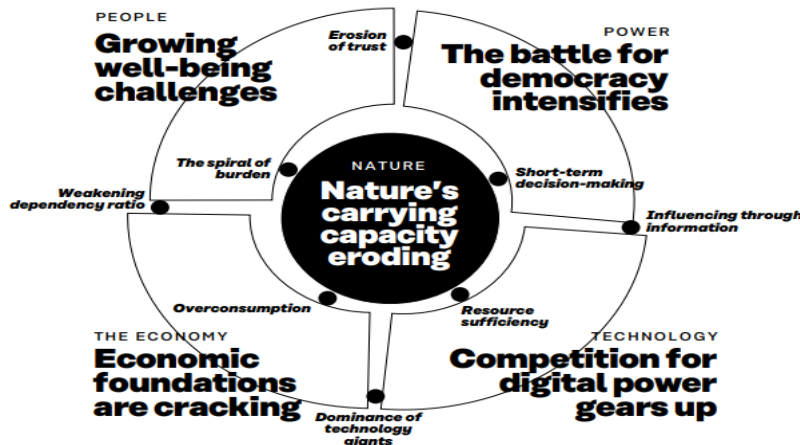


Image: Megatrends 2024. Understanding an era of surprises. Sitra studies 225, 2023

## The big picture of change and the challenges to be addressed

I'll explore the big picture of change through five themes: nature, people, power, technology and the economy. This is a frequently used framework in trend analyses and is helpful in preventing the analysis from focusing excessively on a single theme, such as technological change. Still, more important than the specific framework is examining the linkages between changes and the emergent challenges that need to be addressed.

Nature's carrying capacity is eroding as we are in the midst of an ecological sustainability crisis. The climate is heating up, biodiversity is declining at an alarming rate, natural resources are being over-exploited, and waste is increasing. Human activity places a burden on living and non-living nature beyond its carrying capacity and threatens the very basis of our economy and well-being. There is an urgent need for ecological reconstruction, which means transitioning to a society that improves the state of nature and human well-being.

Well-being challenges are growing as many simultaneous changes affect people's daily lives. The ageing of the population has implications for the size of the working-age population, the funding of the welfare state, the adequacy of social and health services, democracy and the uptake of technology. The population is diversifying and becoming concentrated in growth centres. Changes in working life, the ecological sustainability crisis, the pandemic and general uncertainty about the future are exacerbating mental health problems and testing people's resilience.

The battle for democracy intensifies. Societies are under strain as crises accumulate. Democracies have been both weakened and strengthened by the recent crises. Whereas the global pandemic

concentrated power and limited the freedoms that democracies value, Russia's invasion of Ukraine has galvanised civil society and awakened people to the crisis of democracy. Defending Ukraine is also a matter of defending democracy. At the same time, even in many well-established democracies, the ideals and principles of democracy are being questioned and authoritarian approaches are being applied, both in Europe and the United States. Trust is eroding and information manipulation is growing.

The competition for digital power gears up. Technology and data are increasingly embedded in people's daily lives. Technology is developing rapidly, and new technologies are being introduced in new areas of life. Digitalisation has been the most significant technological development of recent times, cutting across all sectors. Data is increasingly being collected and used to provide new customised services to individuals and organisations. At the same time, there are disputes about the rules of the digital world, the resources required by new technology and, more generally, the direction of technological development. The challenges include both the current dominance of the technology giants and the adequacy of critical resources.

Economic foundations are cracking. Growing global inequalities and the ecological sustainability crisis create a need to reform the economy. Wealth is being concentrated in the hands of an even smaller number of people, while increasing extreme weather events and the collapse of the ecosystem services erode the operating capacity of the economy. Many at the global level have realised that the current economic system is not sustainable for people and nature. We need to rethink the role of the economy and what it actually stands for.

## The big picture of future opportunities



Image: Megatrends 2024. Understanding an era of surprises. Sitra studies 225, 2023

I started by outlining the bigger picture of what has already changed, what is currently changing, and how the changes are interconnected. If we focus only on the push of the present and the weight of the past, we may miss the opportunities of other, alternative futures. Although we tend to think of the future as a continuum from the present, the future is not predetermined; we can influence it and even rapid change is possible. That is why it is worth paying attention not only to the big picture of change but also to future possibilities and the actions that take us towards a



future we want. This figure shows one overall picture of the possibilities of the future. At the heart of it all is ecological reconstruction, the rapid transition away from fossil fuels and overconsumption of resources. To achieve this, we need transgenerational decision-making, sustainable lifestyles, a digital green transition, and a shift to a circular economy. Sustainable lifestyles are also a precondition for holistic well-being, where the well-being of people and nature are seen as fully interdependent. Improving well-being requires long-term investment aimed at preventing health problems and strengthening social capital, and that the economy acts as an underlying driver of change. In a restorative and regenerative economy, the handprint of the economy is larger than its footprint.

The crisis of democracy can be addressed by building trust in democratic institutions and individual empowerment. This requires democratic innovation and new ways to exercise influence and digital Bildung. The concept of Bildung is probably best understood in Nordic countries and in German-speaking Europe; it is a term that encompasses both education and culture. The impact of Bildung is seen in our society in the form of creativity, inclusion, global and social responsibility, an understanding of diversity, caring for others, and well-being. Digital Bildung requires knowledge and skills, participation opportunities and capabilities to play an active role and express oneself creatively and safely in the digital world.<sup>1</sup>

## Age of ever growing and fragmented information and data



Image: controlled digital lending, Wikimedia Commons, CC BY 4.0

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<sup>1</sup> Source: [Megatrends 2023 \(sitra.fi\)](https://sitra.fi/) last visited 11/03/2025

## Legal deposit

In Finland, the National Library of Finland has a shared duty with the publishing industry to jointly preserve all Finnish publications for academic and public access. This preservation applies to printed materials, sound and other recordings, as well as digital publications and other online material. The work is based on the Act on Collecting and Preserving Cultural Materials. The goal is to preserve Finnish publications and to ensure their present and future availability for researchers and the public. Legal deposit collections furthermore preserve materials that would otherwise become quickly unavailable or that other libraries do not collect.

Legal deposits are a very interesting area, as they are at the heart of the questions of digital availability, preservation, and utilisation. Regardless of whether the material is physical or digital, the management of legal deposits requires an understanding of the whole chain of the publication, collection, and preservation of the publications. The management of all of this also requires strong process management and cooperation with different actors, such as publishers, and technology providers, and other stakeholders.

This demands understanding of technological and juridical development, such as metadata formats, as well as legislative issues and balancing between the usability of content and copyrights. At the same time, legal deposits are at the core of questions related to the huge increase in digital data and information and its management.



Source: The National Library of Finland / Statistics Finland

The statistical data collected from Finland describe a generally known trend: the number of printed published data has started to decline, and the number of digital published data is on the rise, for which there is no end. It is worth noting from the point of view of the role of libraries that the

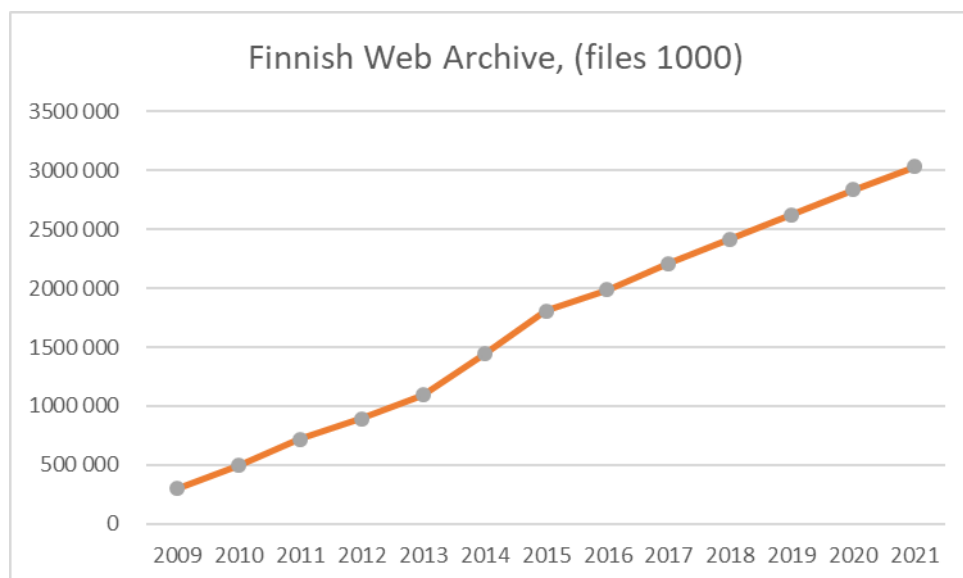
production of printed material has by no means stopped. Instead, we are in a situation where we must take care of both printed and digital material.

## Global increase of the data

Today, digital data surrounds us everywhere, and its importance in the economy, culture and entertainment is growing all the time. The physical world can be seen as just a platform on which the virtual data world is built. In the past, paper was the most commonly used data storage medium. The transfer of data meant transporting paper and copying was laborious copying from hand. The difficulty of transferring and copying effectively curbed people's desire for data.

Nowadays, copying, storing and transferring data is practically free of charge thanks to computers, digital storage media and the internet. When nothing really limits the growth in the amount of data, it has turned out that people's desire to produce, share, use and own data is completely insatiable. At the turn of the millennium, an age of exponential data explosion began, which we are still living in.<sup>2</sup>

## Web archives



Source: The National Library of Finland / Statistics Finland

This amount of information poses a huge challenge to organisations responsible for cultural heritage, and naturally only a fraction of the published information can be saved. However, some indication of the increase in the volume of data published online is the increase in the number of files in the national Library's web archive from 2009 to 2021.

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<sup>2</sup> (Source: [Dataräjähdys muutti datan merkityksen yhteiskunnassa – miten siihen pitäisi reagoida? | Tieto&trendit \(stat.fi\)](#) last visited 11/03/2025)

We have a huge responsibility for choosing and preserving digitally published cultural heritage for future generations. The collecting must be comprehensive, enough to take into account scattered publishing activities and ensure the diversity and representativeness of the data. This can be partly answered with thematic or event-based collections. At the same time, we must be realistic about the resources available and take into account that the choices we have made now will be sustainable in all ways also in the future. It may be that we have had a relatively short time in history when we were really able to preserve all the published material in the collections of the national libraries, but that period is probably coming to its end. It is important to note here that museums and archives have similar tasks and digital environments pose a similar challenge to their collection activities as to libraries. In order to consider possible solutions or future choices, we should look at cultural heritage more extensively, especially its links to social megatrends and challenges and opportunities that we have ahead of us.

## Digital cultural heritage as a bridge between people



Picture: Local History Museum of Kupiansk. State Emergency Service of Ukraine.

Cultural heritage is a bridge that connects

- Time: past, present and future
- People and communities at any time to share experiences, knowledge, values and cultural practices with each other
- As cultural heritage is a bridge, belittling, neglecting and destroying it are effective means of harming individuals, dividing communities and destroying states

## We need to take care of the bridge so that it carries us.

The more we care about and look after cultural heritage, the stronger we are when crises arise. The better we have maintained cultural heritage and related information in digital format, the easier it is for us to live through crises and to recover from them.

## How is the bridge built?



Picture: Teiskola bridge. Sarasmo, Esko photographer. Tampere Historical Museums

The most unique task of cultural heritage institutions among cultural organisations is to preserve cultural heritage for future generations. Bearing this responsibility in a society that is becoming more culturally diverse, and where awareness of cultural diversity is broader than before, is far from simple.

In a pluralistic society, cultural heritage actors play a key role in identifying and recognising the cultural needs of individuals and groups with different backgrounds, in creating equal opportunities in relation to cultural heritage, and in strengthening the dialogue with different stakeholders and audiences.

We are getting more aware of the ecological footprint of our activities and we recognise the environmental impact of our physical infrastructure and operations. And this also concerns digital activities. While the negative environmental impact of intangible assets such as digital cultural heritage can be lower than with many tangible assets, we need to recognise the impact of digital infrastructures and data transmission and design our services to be as environmentally friendly as possible.

On the other hand, digital cultural heritage and the information and knowledge embedded therein contain potential for developing new sustainability solutions based on traditional knowledge and creative interpretations of heritage. This is one example of the potential of culture as an instigator and enabler of change towards the green transition.

## Who walks on the bridge and what do they carry over it?



Charlotta Bridge, Pori. Englund, John, photographer. Satakunta Museum.

Everyone is invited to go on the bridge, and everyone can decide what to carry over it. In February 2023, the Finnish government adopted a resolution on the National Cultural Heritage Strategy 2023-2030. One of the main themes of the strategy is people and communities' ownership, responsibility and opportunities for participation in cultural heritage.

The right to cultural heritage means opportunities to act for the benefit of one's own cultural heritage while also respecting the cultural heritage of others. These rights belong to everyone.

Everyone must have the opportunity to participate in defining cultural heritage, implement their cultural heritage and identify themselves from it. Individuals and communities have the opportunity to adopt and create cultural heritage, but also to place themselves outside it or give it up. Cultural heritage actors have the opportunity to act as forums for societal, communal, and participatory debate that promotes sustainability. The cultural heritage sector and cultural heritage actors can be involved in strengthening democracy by inspiring a debate and providing space for negotiation from different perspectives.



## Conclusions

### Critical reflection on traditional models of operation

I often find myself thinking

- Have cultural heritage actors focused too much on transferring their traditional practices to the digital environment?
- Do cultural heritage actors have enough willingness and ability to build value chains based on cultural heritage in cooperation with experts from other fields that result in products and services that genuinely interest users?

In my opinion, to be able to respond to societal challenges cultural heritage actors must

- genuinely strive for a continuous, goal-oriented dialogue with different communities
- document and record current phenomena through continuous observation
- strive for more co-operation between archives, libraries and museums
- be mindful of their own attitudes and commit to learning

Only this way will we have enough information on the cultural present in the future.

### New positioning and new roles of the heritage organisations

Digital data, open databases and digital technologies reach more and more people more equally, both regionally and globally. Extensive digitisation can be used to support everyone's right to access their own cultural heritage. However, the utilisation of technology alone is not enough.

Duties & opportunities for cultural heritage actors are widely acknowledged:

- Digital interactive tools provide communities with means to record their cultural heritage also themselves and to share and use information about it
- Participation in cultural heritage should be actively supported by removing obstacles to participation and inspiring interest in cultural heritage in the digital environment
- Accessibility of the information and services related to cultural heritage can be improved considerably by developing digital services and content
- Digital tools open up opportunities for more diverse ways of participation
- And... we should also ensure that digital skills and the ability to acquire information are developed and enable the presentation of new interpretations of cultural heritage

### Connecting times, ideas and people

To conclude my speech: we are all aware of the exponential growth of data, but I dare to say that the majority of that data doesn't have any relevance the next day after it has been published. But some of the data is extremely valuable for creating new ideas, making something beautiful and developing our societies, and cultural heritage organisations are at the front line of the sense-making of all this mess of data we are living in.

- I therefore have a question: Could we think that the purpose of cultural heritage actors is to provide a basis for a meaningful life for both present and future generations?



## Linda Arnold-Stratford: The Inspiration of Collecting and Preserving our Nations' Written Heritage - Findings of the 2023 UK symposium

In 2023, we celebrated 10 years of digital legal deposit, and to mark that milestone, we held an international symposium entitled "A Celebration of Legal Deposit: The Inspiration of Collecting and Preserving Our Nation's Written Heritage".

The location, the Stationers' Hall London, was symbolic. The Hall is the home of the Stationers Company, which in 1610 came to an agreement to give a copy of every publication it registered to the Bodleian Library, the forerunner of legal deposit. So, the location connected the very modern digital legal deposit with the origins of legal deposit and was also symbolic for the publishing industry. The early presentations in the symposium were about the history of legal deposit in the UK and how some of the principles remain today. It was really interesting to note that the difficulties we have to get publishers to deposit today have been an issue for librarians for over 400 years. It was also a great reminder about why we do what we do "for the enhancement of learning" and what we do; we collect as comprehensively as possible for users today and for generations to come. In fact, that first publication from the Stationers Office in 1610 is still available to read in the Bodleian today. But the truly inspirational part of the symposium was hearing from colleagues across the world about their experience with legal deposit and how they have dealt with the challenges. The whole event was a really pertinent reminder that what we do as a legal deposit is so valuable and important. The breadth and depth of our collection is the cornerstone of a democratic society, and now more than ever we have a role in ensuring that our users have access to facts and the truth.

There were presentations from BnF, the Library of Congress, KBR, Australia, and Hungary, along with presentations from researchers who use the collections, UK legal deposit colleagues, and publishers. As soon as we started sending out invitations, we had messages from all over the world asking to participate; we soon realised we would not have enough time for everyone who offered to present. Highlighting a need that our legal deposit community has to get together and share experiences.

The symposium was well attended with 102 people in person and a further 192 joining online. Online delegates joined from 36 different countries. With the top five being the UK, Sweden, South Africa, Ireland, and Slovenia. Once we confirmed we would be running simultaneous Spanish translations, our delegates from South America increased. Indicating the importance of having English and Spanish subtitles, the heat map showed where the delegates came from. But more importantly, it showed where they didn't come from. This may give an indication of where we need to improve engagement for any future legal deposit events.

People still comment about how wonderful it was to get together with other librarians who deal with legal deposit. They found it inspirational. They particularly enjoyed having a space where other people understood the complexities of being responsible for legal deposit and the unique challenges, such as storage and preservation, that come with being a legal deposit library. The day

following the symposium, several international colleagues held a meeting where we established that we would like to set up an international forum for legal deposit librarians. A small group was tasked with looking at what this might look like and what we would need to consider.

Unfortunately, the planning for that came to an abrupt halt following the British Library cyberattack; however, the need is still there, and in fact, it is probably even stronger now as other legal deposit libraries want to learn how to deal with such scenarios and share best practices for all elements of legal deposit. So this will be picked up in the coming months.

We're all at different stages of getting digital legal deposit; we can learn from each other and hopefully avoid some of the pitfalls that those who have had digital legal deposit for a long time have discovered. We can collaborate on research projects. We can collectively develop solutions to some of the issues we all face, such as self-publishing work on Amazon. Many of us will be collecting the same material because we live in a globalised economy, and the national borders are blurred in the publishing world. We can collectively advocate for better standards or better publisher deposits, etc.

## Gilles Pécout: BnF's Digital Legal Deposit – Update

### General framework

Instituted in France by King Francis the 1st in 1537, the legal deposit plays a central role in the BnF's model, based on the continuous growth of collections that are conserved with no time limit. As such, it provides a snapshot of French society over time. Today, it represents the main BnF's collections growth mechanism.

Legal deposit does not entail the transfer of intellectual property rights, and the consultation of documents protected by these rights is limited to research purposes within the walls of the BnF and of libraries authorised by order of the Minister of Culture.

### The legal deposit of the web, a first step towards the adaptation of the legal deposit to our digital era

In 2006, the French legislator passed the "Law on copyright and related rights in the information society" (called loi DADVSI in French). This new legal framework paved the way for the enlargement of the legal deposit to digital collections, making the BnF responsible for collecting all "signs, signals, writings, images, sounds and messages communicated to the public by electronic means in France."

While the BnF had begun archiving the web and building up collections of French websites long before 2006, as its first web archive collections date back to 1996, this law legally enshrined the legal deposit of the web. Since then, the library has collected more than 50 billion URLs representing 2.3 petabytes of data.

Over the years, the heritage mission of collecting everything that is disseminated on the French web in order to build up a national digital memory developed technically and scientifically and therefore became a major component of BnF's historical legal deposit mission. Nowadays, web archives are widely used for research purposes.

### Looking for new ways of collecting all digital patrimony

Despite the successful development of the legal deposit of the web, it became apparent that many digital objects distributed electronically were not collected through this process, due to the inaccessibility of some parts of the web for automatic harvesting robots for both technical and legal reasons.

Therefore, digital books and scores; digital periodicals, journals, magazines and newspapers; digital maps and plans; digital photographs distributed by agencies and authors; videos distributed on streaming and VOD platforms; applications and software; and born-digital audio documents

such as music production distributed on platforms were escaping the scope of the legal deposit while constituting a major testimony of French intellectual and cultural patrimony.

In order to guarantee the continuity of the BnF collections from the physical to the digital world and to avoid any disruption to the BnF's legal deposit system, the library started designing a new model aiming to collect all born-digital documents, comparable to its historical legal deposit system, collaborating with publishers, producers, authors and distributors to complete its digital collection. In this model, these players would deposit their digital files along with their metadata at the BnF to guarantee their preservation, their recording in the library's general catalogue and their accessibility for consultation in reading rooms.

## Conducting pioneering experiments

While waiting for the legal framework to evolve in order to carry out this project aimed at implementing new ways of processing born-digital documents, the BnF began designing a new technical architecture for the digital deposit to cover all stages of document processing.

This new technical architecture allowed for the BnF to lead some early experimentation. Thanks to a partnership with the publisher publie.net, the first eBooks entered via legal deposit were added to the collections in 2018. Since then, on the basis of experimental agreements signed with other partner publishers, almost 2,000 EPUBs have been added to the collections. In France, around 80,000 eBooks are produced each year.

## Legally entering the digital legal deposit era

In 2021, the "Law aimed at strengthening the book economy and reinforcing fairness and trust between its players" enshrined the digital legal deposit, following the initiative designed and experimented with the BnF. Fifteen years after the legal creation of the legal deposit of the web, the digital legal deposit now applies to all digital documents, enforcing the library's mission of collecting France's digital heritage.

This deposit has therefore been made compulsory by the French legislator for all born-digital documents to be deposited at the BnF and the other bodies responsible for legal deposit, such as the National Audio Visual Institute for Broadcasting and the National Centre of Cinematography for films shown in cinemas. The unprotected version of the digital document should be accompanied by the metadata needed for automated catalogue processing.

## The digital legal deposit scientific challenges

The BnF is currently working with the French Ministry of Culture to draft the implementing decree for the 2021 Law, which is expected by 2025 and will fully specify the conditions for the deposit, preservation, cataloguing and communication of born-digital documents.



The implementation of the law raises some questions and challenges, which can be perfectly illustrated by the case of the legal deposit of born-digital sound recordings. While having experimented with the deposit since 2019, the BnF now works with three majors (Universal Music France, Sony Music France, Warner Music France) and an aggregation service provider (Kantar Media). Tests of deposits have been held and will continue intensifying throughout the year. These tests have raised three main questions.

First, the question of the exhaustiveness or the selectivity of the documents' collection. The spirit of the law aims for exhaustiveness. However, given the exponential growth in the volume of digital sound recordings, a principle of selectivity and gradual implementation is envisaged and will be formalised in the BnF's scientific policy on legal deposit.

Second, the question of the collection's territoriality. The law on physical legal deposit defines the scope of the collection as documents distributed in France, whether published in France or imported into France. With digital legal deposit, the issue becomes even more complex, as the production and distribution of this type of document do not respect borders. The French Ministry of Culture has decided to apply a strictly territorial digital legal deposit, in other words, an application only for editors and producers established in France.

Third, the question of the substitution of physical documents by digital ones. This question doesn't arise for most documents, such as sound recordings, as they are now mainly exclusively produced in a digital form, or press collections, because their physical and digital editions are not homothetic. But it does arise for certain types of media, particularly monographs, and especially for self-publishing.

## The digital legal deposit technical challenges

In order to make the digital legal deposit possible, the BnF has thoroughly reinforced its technical infrastructures to collect, describe, preserve and distribute natively digital documents. To take full advantage of the automation of input and reporting processes, two technical deposit methods will be implemented:

- digital legal deposit by flow, enabling digital files and their metadata to be retrieved and processed en masse. This mode of entry, which is particularly well-suited to depositors with large production runs, is already operational for digital books and dematerialised sound, and will officially be deployed in 2026, as soon as the decree is published.
- a digital legal deposit by unit system, designed to collect one-off productions and metadata from smaller publishers and depositors. This system is already operational for videos. It will be gradually rolled out from 2026 to satisfy all other types of documents.

## Exploiting the opportunities offered by artificial intelligence

With its 20 years' intensive digitisation policy, BnF was already facing the question of exploiting massive datasets. The digital legal deposit will increase this phenomenon.

Using AI will become a necessity to optimise the collection, the cataloguing, the preservation and the distribution of its born-digital collections, as well as enhancing the discoverability of these new collections. This is why BnF is considering, in its AI roadmap, using AI in metadata creation, data mining and data provision for academic, industrial and innovation purposes.

This AI strategy, considering digital legal deposit, should be implemented taking into consideration the question of intellectual property rights, as documents deposited are protected under the law as copyrighted content. The alternative is either to restrict data exploitation on our premises and servers or to envisage a new framework for the remuneration of authors and content producers, as it has been done for the copyright exception for persons with disabilities.

# Frédéric Lemmers: The Implementation and Evolution of Digital Legal Deposit in Belgium

## Introduction

The significance of legal deposit lies in its role in preserving the literary and cultural heritage of a nation. In Belgium, the Royal Library of Belgium (KBR) has been entrusted with the responsibility of managing and enforcing legal deposit laws. This document aims to explore the evolution of digital legal deposit in Belgium, the challenges faced in adapting to the digital age, and the strategies employed to overcome these challenges.

## Current situation of e-legal deposit in Belgium

Belgium, a relatively young country founded in 1830, saw the establishment of its National Library, KBR, in 1837. However, it was not until 1965 that the first law on legal deposit came into force. As the sole institution responsible for enforcing legal deposit in Belgium, KBR plays a crucial role in compiling a unique collection that provides a comprehensive overview of the nation's literary production, ensuring its preservation for future generations. Additionally, KBR publishes the Belgian Bibliography monthly, which includes all title descriptions received at the library, acting as a permanent showcase of Belgian published heritage.

## Adapting to the digital age

The transition to the digital age has presented significant challenges that necessitate adaptation. Addressing new topics such as technology, intellectual property rights (IPR), and privacy legislation (GDPR) is imperative. Furthermore, user needs and expectations have evolved, with data mining, chatbots, and immediate access to information becoming essential. The rapid technological developments in the publishing industry have introduced new types of collections, making legal and technical issues more complex than in the analogue world. Libraries can choose the formats for digitisation, but the market continues to develop new formats and publication concepts, requiring a shift from proactive to reactive storage and long-term preservation (LTP) strategies.

## Legislative evolution

Although there was an initial extension of the legal deposit law in 2006, it was insufficient. The 2018 law marked a positive evolution by including all electronic Belgian publications. However, the challenges were merely postponed to the publication of application decrees, leaving out web archiving and social network content. This necessitated a comprehensive review and upgrade of the legislation to integrate digital publications and reset the entire legal deposit framework, both administratively and technically.

## Scope of legal deposit

In Belgium, publishers and author-publishers officially established in the country are required to submit their publications. Given Belgium's small size and cultural influence beyond its borders, a unique provision obliges authors residing in Belgium but publishing abroad to deposit their works. This is crucial as many French-speaking authors publish in France, and Flemish authors in the Netherlands or elsewhere. The required deposits include two copies of non-periodical printed publications, one copy of printed periodicals, microfilms, and all digital documents on physical media since 2006. Digital publications were included in the law in 2018, but a royal decree has yet to define their organisation.

## New digital content for legal deposit

The new collections to be included in the digital legal deposit obligation encompass traditional digital publications such as EPUBs and PDFs, the Belgian web, social networks, and digital publications incorporating complex computational means. Preparation for these inclusions involves agreements with partners for the deposit of publicly funded eBooks, the start of voluntary web archives, and the extension of legal deposit legislation to online content. Additionally, new workflows for digital-born content deposit and the development of APIs and access platforms for researchers are being established through projects like BELGICAWEB, in cooperation with Belgian universities. BELGICAWEB aims to make Belgium's born-digital heritage accessible and FAIR.

## Proposed legal and royal decree changes

To achieve a robust legal context, broad definitions of digital publications are proposed to avoid frequent legislative amendments. Specific requirements include replacing the second copy of printed monographs with their digital versions, clarifying who should deposit, handling excess copies, and simplifying administrative processes such as deposit statements and registration numbers. In order to create a robust and adaptable legal framework for digital legal deposit, several significant changes to the law and Royal Decree are being proposed. These changes aim to address current gaps, simplify administrative processes, and ensure the effective preservation of Belgium's digital heritage.

## Broad definition of digital publication

A central aspect of the proposed changes is the introduction of a broad definition of digital publication. This is intended to encompass all current and future forms of digital media without the need for frequent legislative updates. By defining digital publication broadly, the legislation can remain relevant and effective as new technologies and forms of digital publication emerge. Publications must be in an interoperable and DRM-free format to ensure they can be preserved and accessed long-term.

## Specific requirements for web archiving

To support comprehensive web archiving, specific requirements are being proposed. This includes guidelines on how web content should be captured, stored, and preserved. The proposed changes aim to establish a systematic approach to web archiving, ensuring that the vast amount of digital content on the internet, including social media platforms, is preserved.

## Replacement of second printed monograph copy with digital version

A significant administrative simplification is the proposal to replace the requirement for a second printed copy of a monograph with a digital version. This change recognises the growing importance of digital formats and reduces the burden on publishers. By allowing the submission of an e-book or prepress PDF instead of a second physical copy, the process becomes more efficient and aligned with contemporary publishing practices.

## Clarity on who should deposit

The proposed changes aim to clarify who is responsible for depositing publications. Currently, publishers and author-publishers in Belgium are required to submit their works. The new proposal seeks to extend this requirement to include importers of foreign publications by authors residing in Belgium. This ensures that works by Belgian authors, even if published abroad, are included in the national archive, preserving a comprehensive record of Belgian literary output.

## Handling excess copies

The new legislation will also address the issue of excess copies. Currently, multiple copies of certain publications must be deposited, leading to storage challenges. The proposed changes will streamline this process, defining clear guidelines for handling excess copies to ensure efficient use of resources and space.

## Simplification of administrative processes

To make the deposit process more user-friendly, the proposal includes the simplification of deposit statements and registration numbers. This administrative simplification aims to reduce the bureaucratic burden on publishers and author-publishers, making it easier and more straightforward to comply with legal deposit requirements.

## Consultation and involvement of stakeholders

Throughout the legislative process, a broad consultation approach has been adopted. This involves engaging with various stakeholders, including those in the book chain, to ensure that the proposed changes are practical and address the needs of all parties involved. Stakeholders are invited to

participate in filing tests to refine procedures and provide feedback. This collaborative approach aims to create a legal framework that is effective, efficient, and widely accepted.

## Broad consultation process

The consultation process from the start of discussions has been inclusive, involving various partners in the book chain. These partners are made aware of proposed changes and are encouraged to provide feedback. They are also involved in filing tests to refine procedures and address their concerns. The discussions are split into two main topics: the collection of digital collections, governed by legal deposit laws, and access to collections, governed by other legal texts and licenses.

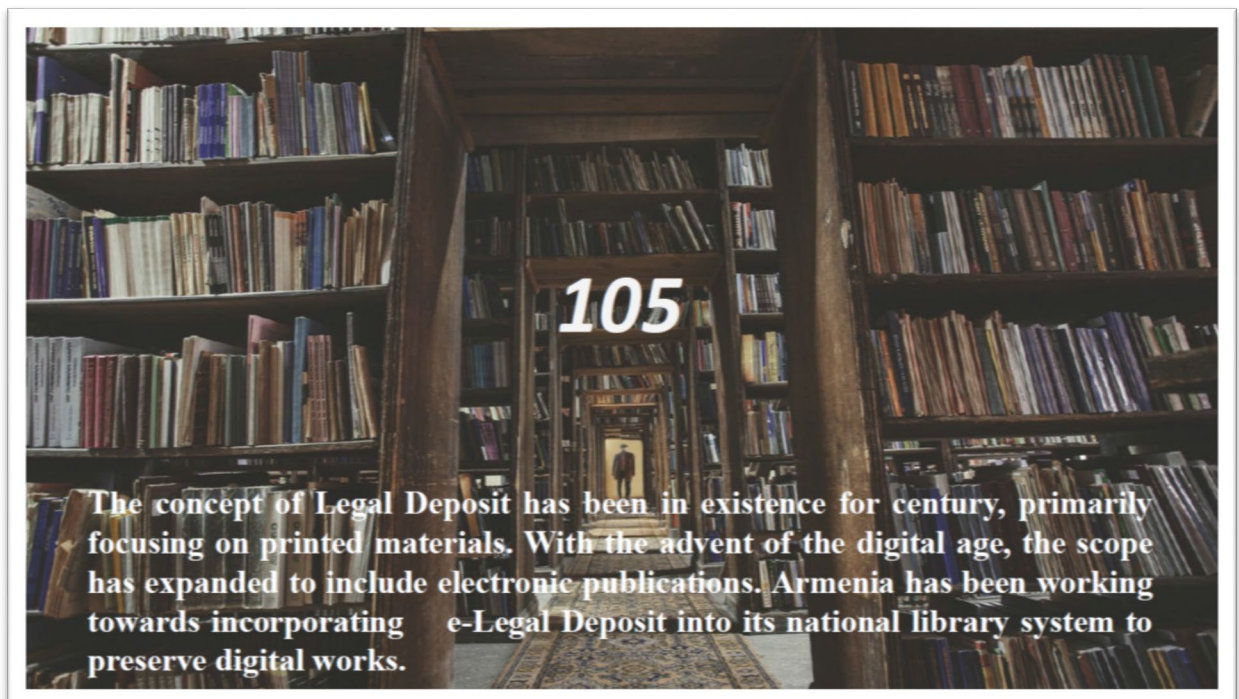
## Next steps and future challenges

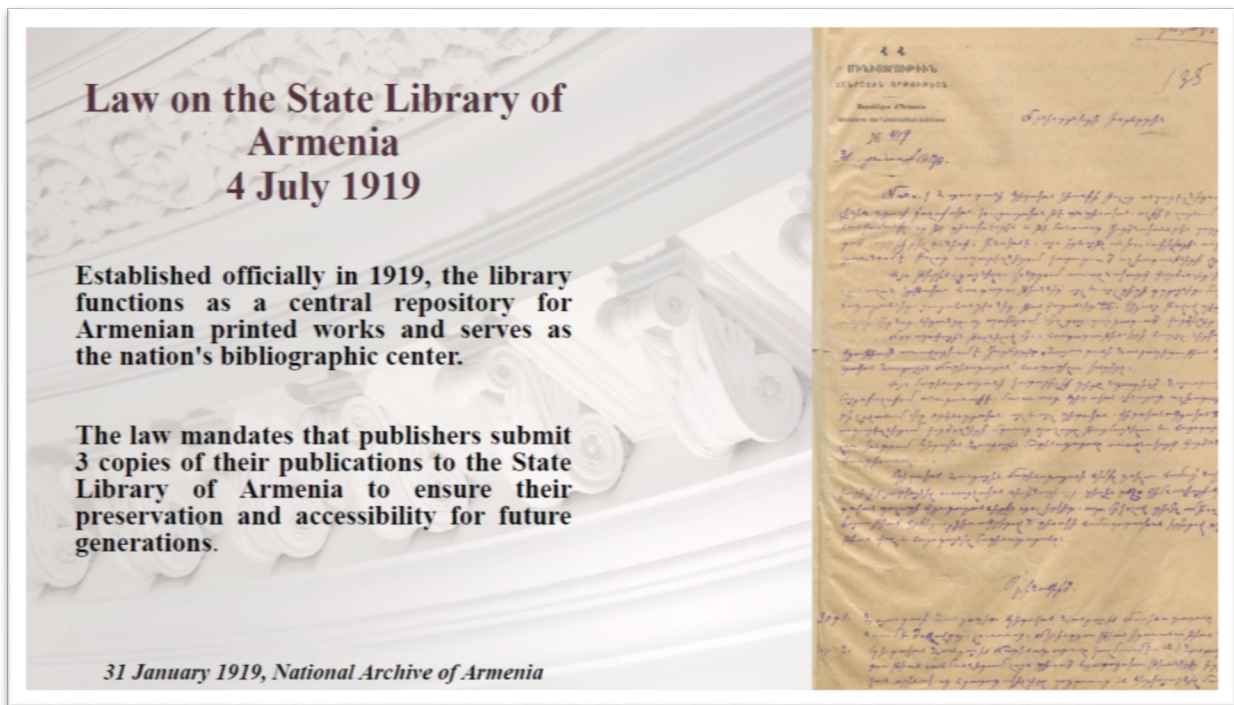
In the dynamic landscape of digital information, Belgium's eDeposit system plays a pivotal role. This system facilitates secure archiving and efficient document submission, ensuring the preservation of valuable content. The eDeposit platform streamlines the process of depositing digital materials, benefiting researchers, institutions, and individuals with its user-friendly interface and robust infrastructure. By embracing eDeposit, Belgium contributes to the global effort to safeguard knowledge for future generations.

However, several challenges remain, particularly concerning access. Questions about controlling restricted access conditions, applying exceptions for research and teaching, determining embargo periods, developing technical solutions for rights management, including institutional deposits, and ensuring long-term preservation of digital collections are still under discussion. Collaboration with the publishing industry, lawyers, and technicians continues to address these issues. Additionally, the evolution of the directive on out-of-commerce works and its transposition into Belgian law is being monitored to assess its added value within the context of digital legal deposit.



## Anna Chulyan: E-Legal Deposit in Armenia – Ensuring the Preservation of Digital Publications







## First Publishing House in Armenia was established in Etchmiadzin (1772)



*Printing Museum  
National Library of Armenia, 1771*

## First Publishing House in Yerevan (1875)



*Printing Museum  
National Library of Armenia*



## Publishing Houses in Armenia 220

The National Library of Armenia is the official agency responsible for issuing ISBNs to Armenian publishers since 2017.

NLA is leading the initiative to implement e-Legal Deposit

- development of legal frameworks
- technical infrastructure
- collaboration with publishers and authors

The goal is to ensure comprehensive collection and preservation of Armenia's digital publications.

CENL | 2024

## Collaboration and Support

Successful implementation of e-Legal Deposit relies on the collaboration between the National Library, publishers, authors, and other stakeholders. Efforts are being made to raise awareness and provide support to those involved in the publication process. This collaboration ensures a comprehensive and inclusive approach to digital preservation.

CENL | 2024

## Legal Framework

To support e-Legal Deposit, Armenia is working on establishing new law and regulations. These law will mandate the submission of digital publications to the National Library of Armenia. The framework is designed to cover various types of digital content, ensuring they are archived and accessible for future generations.

CENL | 2024



## Benefits of e-Legal Deposit

- **e-Legal Deposit provides numerous benefits, including:**
- **Preservation of digital heritage**
- **Increased accessibility to digital publications**
- **Ensuring the longevity of digital content**
- **Supporting research and education**
- **Enhancing the cultural and intellectual wealth of the nation**

CENL | 2024

## Future Directions

**Looking ahead, Armenia aims to continually improve its e-Legal Deposit system**

- **updating legal frameworks**
- **enhancing technical capabilities**
- **fostering international cooperation**

**The ongoing development of e-Legal Deposit will ensure that Armenia's digital cultural heritage is preserved for future generations.**

CENL | 2024







## Tamara Butigan: e-Legal Deposit in Serbia

The institution of e-legal deposit is one of the greatest achievements the National Library of Serbia has had in recent decades. It was set up in 2011 during a very favourable social moment for Serbia and its national library, which was fully dedicated to digital transformation.

This year, I joined the IFLA National Libraries Section Standing Committee, where the topic of e-legal deposit is highly prioritised. The colleagues from the section approached the topic very seriously and produced a benchmark schema for national libraries, which I used as the basis for the content of my presentation: legal background, documents covered by the law, library policy for printed and digital copies, and cataloguing policy. At the end, I will provide a brief overview of the publishers' perspective.

The Legal Deposit Law was a true milestone for establishing the infrastructure for collecting e-publications. Adopted in July 2011, it was followed by two by-laws regulating details and has been in use since October 2011. The two by-laws are Regulations on the Delivery of Mandatory Copies of e-Publications to Deposit Libraries and Their Use and Regulations on the Preservation, Protection, and Use of Mandatory Copies of Publications in Deposit Libraries. There are two deposit libraries: the National Library of Serbia in Belgrade and the Matica Srpska Library in Novi Sad. At that time, it was a pioneering law, not only in Southeast Europe but more broadly. The law defines the publications to be collected as e-legal deposit. There are three types of e-documents covered by the law:

1. A publication released in electronic form as a separate physical unit (on various media: floppy disk, CD, DVD, Blu-Ray Disc, USB, etc.)
2. A publication that is available on the internet
3. A publication prepared for printing in a format that corresponds to international standards of universal information accessibility (digital copy of the printed publication)

The National Library of Serbia focused on the digital copies of printed publications, the files used by publishers as "prepress." For each printed publication, there must be one PDF file that is identical to the printed publication, from cover to cover, and the submitted PDF should comply with the following requirements:

- It should be produced by Adobe version from 1.0 to 1.7 and beyond
- 72 dpi resolution, RGB colour palette, with JPG image compression
- The main text must not be vector
- All publication pages should be in one PDF file, with covers, impression, and content

The collection policy in Serbia is partly inherited from the former Yugoslavia, where the legal deposit comprised 10 copies of each printed publication. The legal deposit requirement for five printed copies, defined by the law in 2011, was increased to six copies by the law amendments in 2016. One digital copy of each printed publication has been required by the publishers since 2011, when the law was adopted.

The cataloguing policy in Serbia is still not fully defined for all e-publications. Pure e-publications

(ePub, azw, etc.) are still not catalogued regularly. However, the e-publications collected as e-legal deposits are catalogued in an offline database with the following metadata:

- Title
- Author
- ISBN / ISSN / ISMN
- ID of the record for the printed version
- Volume / Number
- Date of release
- Access level

There are three levels of access to the e-publications, so publishers can opt for:

- Open access
- Access from the deposit library
- Dark archive

Statistics show that most publishers opt for access from the library (around 70%), open access is in second place (15-20%), and the dark archive is in third place (10-15%). Regarding the type of material collected as an e-legal deposit, the largest number of publications belongs to periodicals (around 70%), followed by books (around 20%), with the rest reserved for non-book materials. The total number of PDFs collected since 2011, over 12 years, is nearly 38,000.

Publishers in Serbia are quite distrustful when it comes to making their publications available in some form of open access. This is partly due to the very active grey market for e-books, mostly on social networks. A regular e-book market simply doesn't exist. I would say that we have a kind of coexistence of publishers, libraries, and book pirates. The successful e-legal deposit project balances the publishers' fear of leaks from the e-legal deposit system with the need for digital preservation of current publishing production for the future.

## Kristel Veimann: Estonian Electronic Legal Deposit

The mission of the National Library of Estonia is to protect the country's cultural heritage. As we value openness and innovativeness, we have to understand how the changes in the digital world affect our legal deposit principles, ecosystem, workflows and e-solutions. Collecting and preserving legal deposit is connected with the national library's strategic goals, as the digital transformation not only means developing e-services; it also means that we must understand how the changes and possibilities of digital society affect our services and processes. We have to understand the relevance of the services we offer to publishers, the touchpoints and key challenges, which are mainly connected with rapidly evolving AI solutions.

The topic of archiving online publications has been on the table in Estonia since 1997, when the National Library started to collect information about Estonian online publications. At the beginning of 2000, Estonian publishers started to actively publish online and it became obvious that the National Library of Estonia had to expand its activities from monitoring and selecting web resources to archiving web publications. The test project of archiving online publications was carried out from 2000 to 2005. This project created a basis for building a test environment to collect, register and archive online publications important for Estonian culture.

In 2006, the Legal Deposit Copy Act was updated to cover the collecting of online publications that are made accessible to the public on the Internet and contain information important for Estonian culture. As the receiver of legal deposit copies of web publications, the National Library of Estonia had the right to make a copy of the online publication. The depositor of the legal deposit copy was required to enable the making of a copy. So in Estonia, the archiving of online publications has been regulated by law since 2006. In 2009, the Estonian Ministry of Culture initiated another review and updating of the Legal Deposit Copy Act. The new act was adopted on 15 June 2016 and entered into force on 1 January 2017.

With the Legal Deposit Copy Act, the Riigikogu (Estonian Parliament) updated the arrangement of collecting legal deposit copies and gave digital publications equal importance along with the previously listed printed publications, sound recordings and DVDs. The new law also regulates web archiving and the collecting of the output-ready files of films. There are four main changes in the legal deposit system: the creation of a legal deposit centre at the National Library; the number of printed publications reduced from 8 to 4 copies; the number of deposit libraries reduced from 10 to 4; and starting the collection of output-ready files of printed publications and films as legal deposits. The most significant change introduced by the new Act is related to digital publications. The Act updated the collection and storage of publications important for Estonian culture and enabled the National Library to collect all output-ready files of Estonian printed publications into our digital archive. So Estonia became the first country in the world to legislate the collection and storage of output-ready files of publications and films. The new Act ensures that it is no longer necessary to separately digitise publications and films that are published since 2017. Output-ready files of films are deposited and preserved in the National Archives.

To fulfil our obligation, the National Library created the Publisher Portal, an environment that assembles all e-services that the National Library provides to publishers. We opened the Publisher Portal in January 2017; now the environment is under development and the new version will open at the beginning of 2025. Via the portal, our publishers can inform the National Library of their new publications and apply for the international standard numbers ISBN, ISSN and ISMN. The portal also makes it easy for publishers to submit their e-books and the output-ready files of books for archiving, manage the legal rights of their publications, and view the statistics on the use of their publications.

The files received from publishers are safely stored and accessible in the National Library's digital archive, DIGAR. Our digital archive has three interfaces for end-users: one for monographs, online and preprint files, containing books, maps, sheet music, photos, and postcards. Digitally born or digitised periodicals are available in another environment where all periodicals are accessible at the article level. The third environment is for web archives: we collect and preserve online publications that have been made available to the public (1) via the domain .ee or other top-level domain geographically linked with Estonia; (2) via another top domain, being important for Estonian culture; (3) by any citizen or a legal person registered in the Republic of Estonia, or by a natural person residing in Estonia, and being essential for Estonian culture. Today, the web crawling of Estonian sites is carried on at three levels: Selective Crawl: we collect websites of state institutions, local governments, etc.; we create Special Collections: Estonian Republic 100, Olympics, Song Festivals; Broad Crawl: sites ending with .ee are collected once a year.

The primary objective of the National Library of Estonia today is to unify three access environments into one unified DIGAR portal. The new environment will open at the beginning of 2025. In terms of access, the main rule is that publishers will decide about access rights. By law, legal deposit copies may be used at an authorised workplace/computer. These workplaces are located in five legal deposit libraries. It is a computer workstation where digital legal copies are made available while at the same time disabling the copying to external media. If the copyright holder gives us permission for the publication, it will be made available to everybody, freely accessible. Cooperation and collaboration with publishers were not easy at the beginning. But we decided that the most important issue was communication. We organised information days for printing houses and publishers and had a lot of seminars. Today all the necessary information for publishers is available on our website, and we also have a small group of publishers who are, for example, testing Publishers Portal developments.

Good cooperation guarantees that we are able to develop new and additional services. For instance, we are currently discussing how to legally make e-books and audiobooks available for lending services, as well as whether or not our e-book lending program can serve as a sales channel for publishers. Our main objective is to give end users options, including the option to purchase the same book after the free license expires. Since 2023 the National Library also works as the Library for the Blind. We opened for publishers' audio files that we make available to the readers of the Library for the Blind to produce more audiobooks for Estonian people. In this way, we avoid duplication in our book market, and the National Library will also have an additional budget to buy more audiobooks.

Considering digital transformation and the e-legal deposit ecosystem, we see that the changing world is also impacting our workflows and challenging our traditional principles. As we all know, AI is developing in all spheres and the meaning of national cultural heritage and national bibliography is being reinterpreted. Publishers who are creating AI-generated books can be given Estonian ISBNs, provided that all the other criteria for ISBN assignment are met and the AI-generated book can be considered national cultural heritage. We see that the number of such creations is growing, and by initial analysis we guess that 12% of the Estonian book market in 2023 was produced by AI. In the digital world, it is quite easy to produce different formats of e-books. Is it still in force that we have to collect all of them: online PDF, preprint PDF, EPUB, MP3, etc.? Maybe it is time to think more about the content, not the digital format.

The digital world brings us new content and raises new questions: for example, what is the best way to collect video games? What about Estonian e-residents whose only connection with our country is digital registration to use our e-services - do the works created by them belong to our country's heritage? And as our obligation is to make legal deposit also accessible for research as an Estonian language corpus, we have to find a solution to make the hitherto quite closed e-legal deposit more accessible to researchers.

As the world is rapidly changing, we think it is time to restart negotiations – not only for the need to amend the law but with a broader aim – to discuss what is a legal deposit collection in the digital world.



# Cornelia Diebel: Let the Music Play – the Collection of Electronic Music Files at the German National Library (DNB)

## Background – the collection mandate

The German National Library's collection mandate encompasses all texts, images and sound recordings published in Germany that have been issued since 1913. The mandate includes all physical publications. In 2006, the collection mandate was expanded to non-physical media works, including online publications. Such publications are those that are available online, including e-books, e-journals, e-papers, digital audiobooks, musical performances and websites.

In order to fulfil the E-Legal-Deposit for the online resource collection a step-by-step approach was adopted. The initial phase of the project focused on the collection of monographic works, followed by journal items and, most recently, music files. Right from the start, it was evident that the German National Library would require automated processes to cope with the upcoming amount of data<sup>3</sup>. As a result, we started the implementation of automatic workflows across the entire life cycle of online resources, which include the stages of transmission, processing, transfer to the long-term archive and the provision of online resources. This approach enabled the German National Library to reach the 16 million mark in June 2024, covering the entire spectrum of online resources published in Germany. In accordance with our step-by-step approach, we have been preparing to collect music resources for some time now. To fulfil the automatic approach for our collection, five requirements have been defined. But the most significant concept is the collection of the object and its associated metadata. This requires dealing with the relevant community and their respective metadata formats. In the context of monographic works, ONIX has become the industry standard, with such widespread adoption that it is clear that ONIX metadata must be imported. In the area of e-journals, recent years have seen significant developments, with the advent of standardised metadata formats such as JATS and CrossRef. These formats are utilised by the German National Library for its collection. A comparable trend can be observed in the music industry, where the DDEX standard is gaining prominence.

## DDEX as an industry standard

DDEX stands for "Digital Data Exchange" and represents an international standard, established in 2006 by a consortium of organisations within the music industry. The objective is "to improve efficiency and aid the automated exchange of information along the global digital music value chain"<sup>4</sup>. At present, there are ten families of DDEX standards that can be implemented. The DDEX ERN standard enables the exchange of data between record companies and distributors and service

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<sup>3</sup> <https://library.ifla.org/843/1/087-diebel-en.pdf>, last visited 11/03/2025

<sup>4</sup> <https://ddex.net/standards/>, last visited 11/03/2025

providers. It allows the description of releases and resources made available by the record company or distributor. ERN stands for Electronic Release Notification and constitutes the focus of our analysis. Furthermore, DDEX has established mechanisms for the exchange of ERN messages between two business partners. One such mechanism is a defined Secure File Transfer Protocol standard, which describes the way in which SFTP should be employed for the exchange of messages and other files. DDEX ERN is a complex standard that cannot be immediately implemented. This may be the reason why there are currently several versions of DDEX ERN in use. The latest version of the standard is ERN 4.3. However, the majority of live implementations are still based on ERN 3.8. Both versions are not backwards compatible. The German National Library has decided to implement the latest version, primarily due to the fact that version 3.X is no longer under maintenance and its sunset has already been announced.

## New data model for automatically collected music resources

Once the decisions about the right standard family and versions of the standard had been made, the most suitable way for the automatic recording of the music data had to be determined. How should the data model look in the catalogue system? It should be noted that this differs from intellectual cataloguing. The result is that we concentrate on the track level and not on the album level. Our approach involves the independent entry of each track, with the album being recorded as a string in each track record. This requires solutions to manage the materials included in the album, such as the artwork or lyrics. A further crucial aspect of the implementation process was the manner in which the names of artists are handled. The term "artist" has a different meaning in the context of the music industry than it does in a library context. It is irrelevant whether a name refers to an entity or a person and information provided about artist names is less detailed than we are used to seeing in the library sector. It was therefore decided that a new category of name information will be created. This will enable future automatic processes to handle names more effectively. In the context of DDEX, the use of ISNIs is strongly encouraged. We support this approach and will attempt to link the names to as many identifiers as possible.

## DDEX – get in touch with the community

Also for DDEX, one of the key steps in the implementation as a new import format for metadata was to establish contact with the relevant community. The DDEX secretary is extremely helpful and we found a competent pilot partner in the community who will mirror and test our implementations. Our pilot partner is Morr Music<sup>5</sup>, a Berlin-based record label. In addition to the theoretical description of the standard, insights were gained into its real-world use, even though the specific form of DDEX ERN 4.3 not yet widely adopted. In October 2022, we held a virtual workshop, "Delivery of music files to the DNB"<sup>6</sup> with representatives from the music industry,

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<sup>5</sup> <https://www.morrmusic.com/> , last visited 11/03/2025

<sup>6</sup> <https://www.dnb.de/DE/Ueber-uns/DMA/DDEXWorkshop/ddexWorkshop.html> , last visited 11/03/2025



including associations, labels, and service providers. We established a dialogue that we will pursue once we have gained practical experience in the process of music collection.

## Let the music play – Status Quo and prospects

The digital transformation of the music industry presents unique challenges and opportunities for national libraries, particularly in the realm of legal deposit. To address these, the German National Library has spearheaded initiatives that could serve as a model for others. We have developed a new import format, a new automated workflow, and comprehensive documentation. In addition to the work that focused on the standard, a significant objective within the DNB was to modernise the existing technical solution. In order to implement the new workflow, a workflow engine was introduced to facilitate the necessary processes. The new technical solution is now implemented and the process of importing musical files was initiated at the end of June 2024. However, to further advance in this field, national libraries need to take additional steps, considering the global nature of the music industry and the associated constraints in the implementation of e-legal deposit in this field. These limitations will be observed at both the national library level and within the music industry itself. Furthermore, the legal and technical aspects, in addition to the considerable volume of data, must be taken into account. It would be beneficial for national libraries to evaluate the potential advantages of collaboration on this issue and to explore alternative methods for aggregating musical files, such as a collaborative approach. By deeper collaboration and cross-border partnerships, national libraries and music industry stakeholders could create a more unified approach to digital music legal deposit. This could help in standardising processes and addressing common challenges. By addressing constraints, technical, legal, accessibility, preservation and policy issues collaboratively, national libraries can effectively navigate the complexities of digital music legal deposit, ensuring that they continue to fulfil their role as custodians of cultural heritage in the digital age.



## Carlo Blum: Legal e-Deposit



## Legal and Regulatory Framework - 1

[Règlement grand-ducal du 6 novembre 2009 relatif au dépôt légal.](http://data.legilux.public.lu/eli/etat/leg/rgd/2009/11/06/n8/jo)  
<http://data.legilux.public.lu/eli/etat/leg/rgd/2009/11/06/n8/jo>

The following digital publications published in Luxembourg are subject to legal deposit at the BnL:

Art. 1.2

\* digital publications on a **physical medium** of any kind produced by a process other than printing, including expert systems and other artificial intelligence products, databases, software and software packages;

Art. 1.3

\* publications **without a physical medium** made available to the public via an electronic network, in particular **Internet sites** and content...

Art. 6

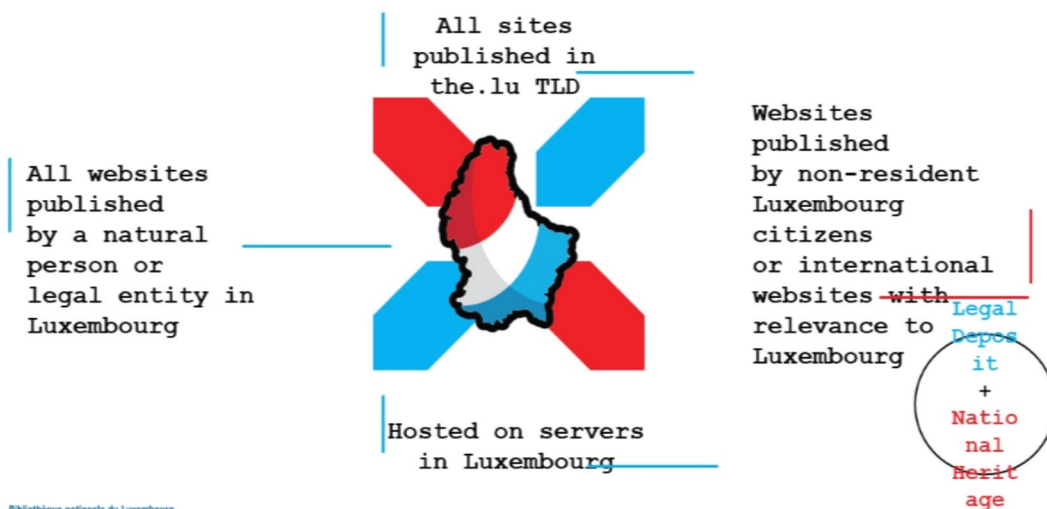
... the producer must provide the National Library, on request, with all the information and tools necessary for copying these publications.

## Legal and Regulatory Framework - 2

### What is missing?

- Obligation to transfer high-resolution files from publishers of physical documents  
→ BnL wants to avoid to continue to digitize physical materials
- Amendment to existing legal deposit laws to include all web content (print, audio and video)

## Webarchive.lu



## Webarchive.lu

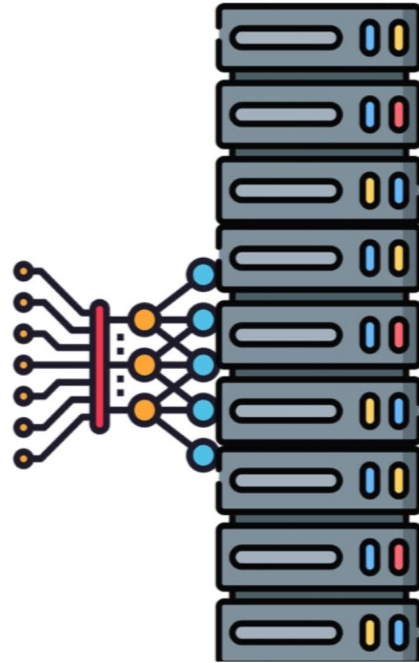
WARCs at the BnL:

- Current total:  
400 TB

-Broad crawls: 72  
TB/year

-News media: 18  
TB/year

-Paywall media: 10  
TB/year



## Webarchive.lu

### FACETS

#### domain

- woodlee.lu (5,771)
- facebook.com (2,759)
- google.com (2,242)
- google-analytics.com (815)
- googletagmanager.com (20)
- batself.lu (14)
- globus-baumarkt.de (5)
- drinx.lu (1)

#### content\_type\_norm

- other (7,811)
- image (1,603)
- text (1,190)
- html (992)
- video (31)

#### type

- other (7,811)
- image (1,603)
- document (1,190)
- web page (992)
- video (31)

#### crawl\_year

- 2023 (11,627)

### RESULTS

Showing 0 - 20 of 11,627 entries matching query.

[See available export options](#)

[Previous 20](#)

[Next 20](#)

#### WOODEE

Type: html, web page @ woodlee.lu  
Date: 15/03-2023  
Url: <https://woodlee.lu/de/uber-uns>

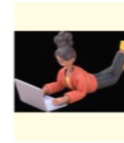
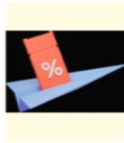
#1  
score: 23.781841

#### Highlighted content:

unsDEENFRPTWoodlee?Und wie!Wer sind wir?Woodlee ist die zu 100% digitale und zu 100% innovative Lösung, die alle Arten

Images: showing 4 out of 5

[See all images](#)



[View data fields](#)



## Why consider files?

- **Better discoverability**
- **Continuity** in collection (from print to digital)
- **Consistency**: Digital files offer a fixed format which makes them easier to preserve in their original form
- **Authenticity**: Maintaining the integrity of digital files is simpler
- Clear **Ownership** / Licensing
- Fewer **Technical Challenges** : Archiving digital files is easier for **Long-Term Preservation**
- **Metadata** Integration: Embedded metadata in digital files facilitates could ease cataloging

## Content Acquisition and Ingestion

Data from	Action	Source
governmental bodies	Letter addressed to governmental bodies to remind legal deposit obligations and describe process. (Print PDF is included)  Lobbing: Legal deposit contact person per institute	Upload to a drobox like platform (BOX)  Following the law of 29 November 2021 on open data, administrations and State services are required to publish most of their data via the <b>Luxembourg Open Data public portal</b> . ( <a href="https://data.public.lu">https://data.public.lu</a> )
local authorities	Letter addressed to local authorities to remind legal deposit obligations and describe process . (Print PDF is included)  Lobbing: Legal deposit contact person per institute	Upload to a drobox like platform (BOX)
selected publishers		Scheduled uploads to BnL via sftp (print PDF's), email, BOX, wetransfer ....
curated content	Download of selected documents by the BnL DC	Internet

## Public Awareness and Outreach



**Regular trainings** for employees from local authorities and governmental bodies at the **National Institute for Public Administration**

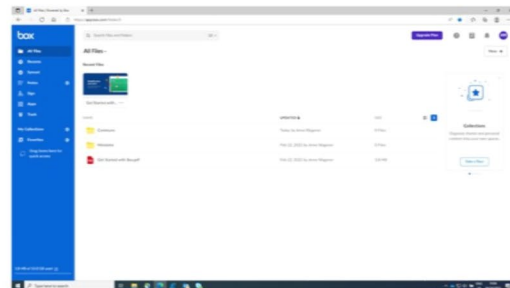
When: twice a year

Attendance: 15-20 persons per training  
56% governmental bodies  
68% local authorities

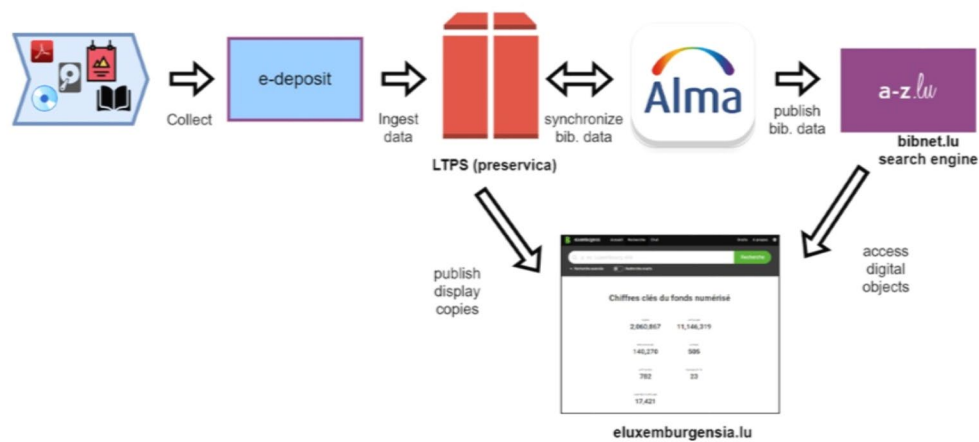
## The Box (<https://www.box.com/>)

### Issues

- Costs (270€ /user per year)
- Configuration
- Automation: Inventory and claims
- Synchronization with ALMA/Preservica
- Management of bibliographic Metadata (Excel)



## Ingest workflow



## (E)-deposit

### What we need

- One platform for e-deposit and legal deposit (one stop shop)
- Integration with Preservica and ALMA
- Collect structured Metadata
- Link to the authorities database of the national library
- Claiming tools
- Self registration of content providers
- Additional services for content providers

**Coming in 2026**

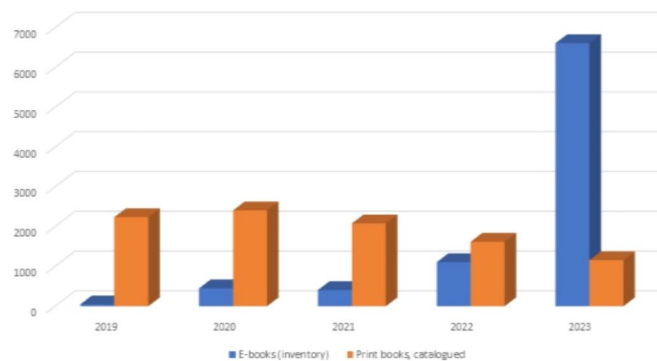


## Automatic layout recognition?

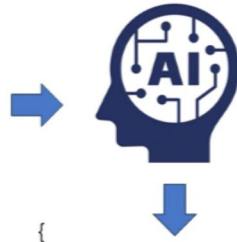
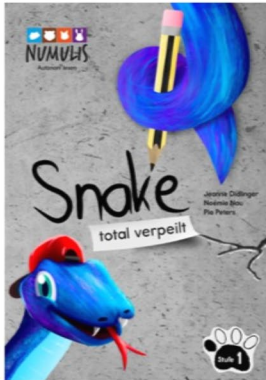


## Digital wave?

E-books & print books



## Metadata generation?



```
{
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  "subtitle": null, "author": "Jeanne
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Noémie Nau, Pia Peters",
  "publisher": "Numis SARL-S",
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  "last printed page number": "36"
}
```

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  <subfield code="a">Snake total verpeilt </s
  <subfield code="c">Jeanne Didlinger, Noémie
</datafield>
<datafield tag="260" ind1=" " ind2=" " >
  <subfield code="a">Lintgen :</subfield>
  <subfield code="b">Numis SARL-S,</subfield>
  <subfield code="c">2022.</subfield>
</datafield>
<datafield tag="300" ind1=" " ind2=" " >
  <subfield code="a">36 pages</subfield>
</datafield>
</record>
```

Can you format the following json data as a marc21-xml record?

**Questions?**  
carlo.blum@bnl.etat.lu

**B** Bibliothèque nationale du Luxembourg  
Nationalbibliothek



## José Luis Bueren: E-Legal Deposit

In this presentation, the situation of electronic legal deposit at the National Library of Spain (BNE) will be briefly outlined. A first important aspect to take into account is the legal framework in which this activity has been developed. The main milestones in this regard are, on the one hand, the reform of the Legal Deposit Law of 2011; the approval of a Royal Decree on the legal deposit of online publications in 2015; and, finally, a new version of the Law itself in 2022. Currently, work is being done on a new Royal Decree that will develop the recent law. As can be seen, despite the fact that the processing of legal changes is not simple, the BNE has tried to adapt the regulations to the changes that have occurred in the publishing world in this period. When talking about electronic legal deposit, we can distinguish three different areas:

1. The web archive
2. The deposit of digitally born publications
3. The deposit of preprints

### The Web Archive

It began at the BNE in 2009 thanks to an agreement with the Internet Archive, which carried out the deposit at the request of the BNE. From 2014, the BNE began to launch its own collections independently. Three types of collections are carried out:

- On the one hand, massive collections of the different Internet domains linked to Spain: “.es”, “.cat”, “.gal” and “.eus”
- In addition, selective collections are carried out daily from websites chosen by the BNE itself and by the conservation libraries of the different regions
- Finally, in the case of notable events, specific collections are made to keep a record of their impact on the Internet

Technologically, the BNE uses NetArchiveSuite (NAS), developed by the Royal Library of Denmark, OpenWayback, from the IIPC and Cweb, developed by the BNF as a collaboration tool with the Regions. As can be seen, international collaboration has been essential for the BNE to be able to implement the necessary technology and national cooperation is also key to trying to preserve the most relevant websites. Currently, around 2.5 % are preserved in WARC format.

The selection criteria used are:

- Risk of disappearance
- Variety and relevance
- Political neutrality
- Diversity of points of view (cooperation with the regions broadens the perspective that the BNE would have on its own). There is also collaboration with universities and research centres.

## The deposit of born-digital publications

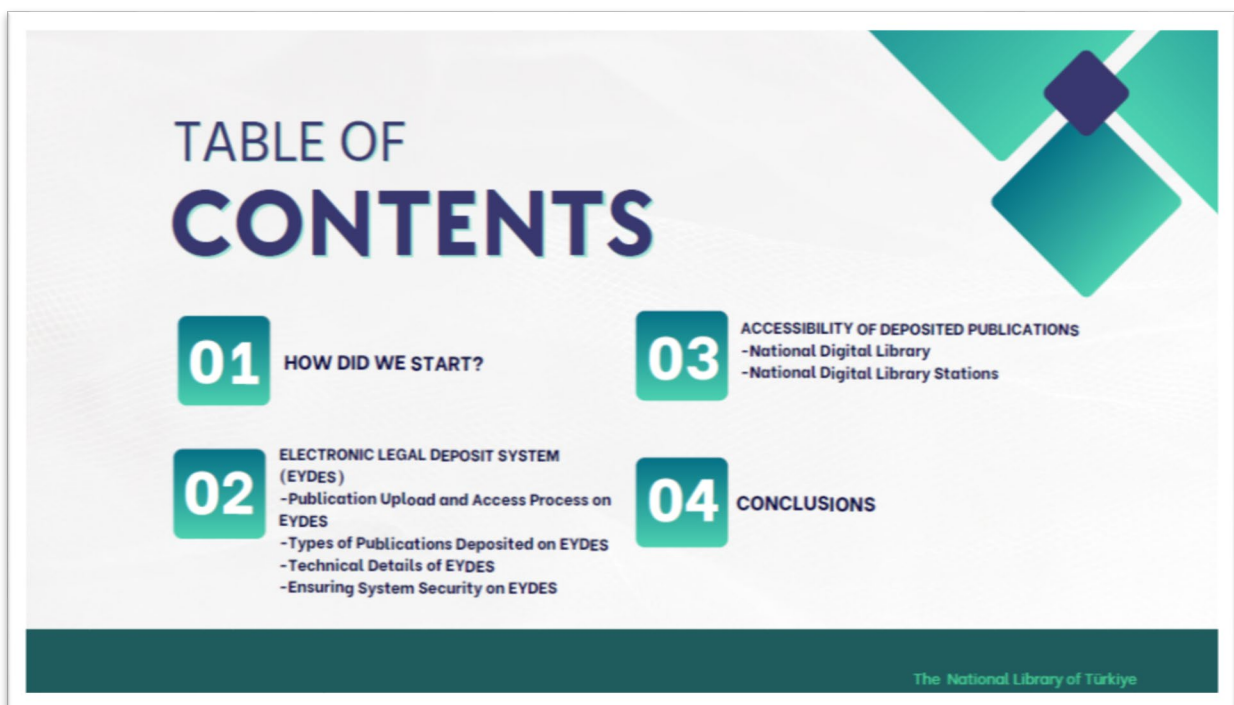
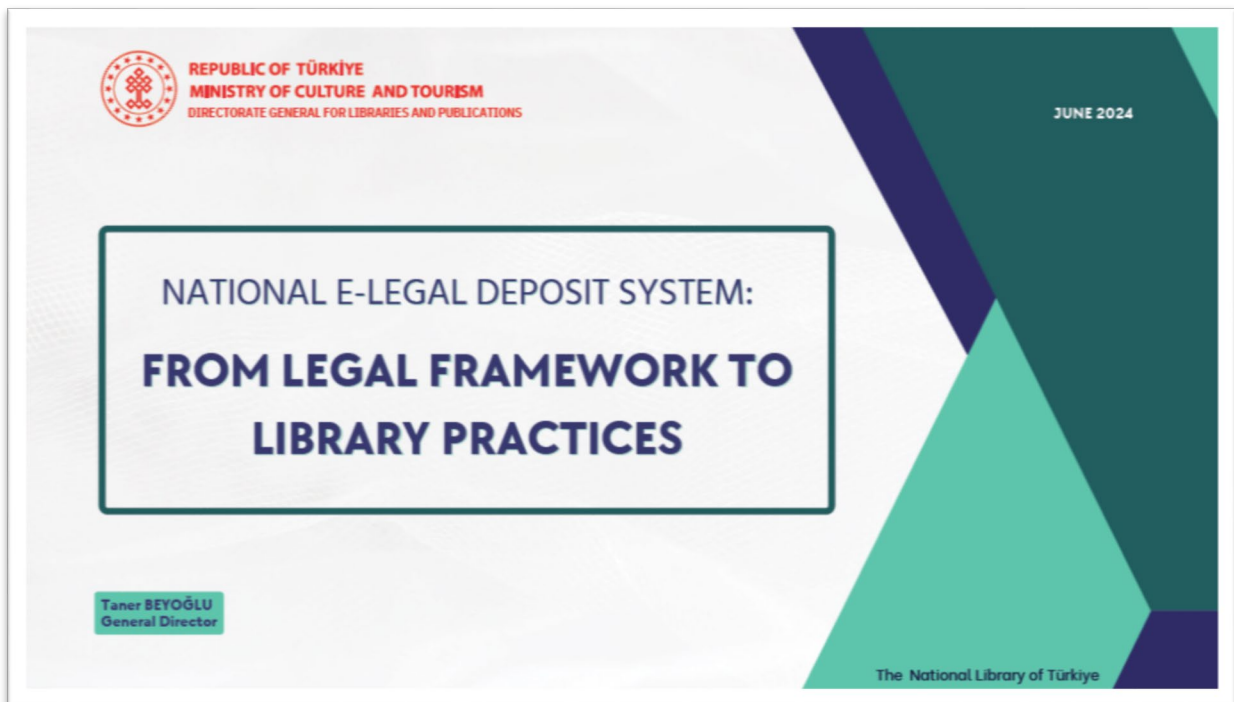
In order to be as efficient as possible, the BNE has sought to deal with the main distributors of born-digital books such as Librandia, Bookwire, AENOR, Unebook, and the Official Publications Publisher. To date, more than 200,000 born-digital publications have been received.

## The deposit of preprints

One of the main novelties of the Legal Deposit Law approved in 2022 was to include the obligation to deliver, together with copies of printed books, newspapers and magazines, the digital versions of said materials. The main objective was to avoid the future digitalisation of works that were printed from a digital file as well as to provide quick access at the library's headquarters to this digital version. As in Spain, the regions also have jurisdiction over legal deposit; it has been decided that the deposit can be made in the regional libraries or in the National Library (but only in one of them). In the case of deposits at the BNE, a very simple system has been chosen that has proven to be robust: the only obligation for the editor is to name the files with a standard number, which can be the legal deposit number, the ISBN, or the ISSN. Thanks to an agreement with the book rights management society, the editor can authorise that the deposited file be used to generate a digital fingerprint that facilitates the pursuit of illicit uses. To date, 40,000 books have been received (compared to 3,135 last year) and 70,000 copies of newspapers (compared to 19,828 last year). In general terms, we at the BNE are satisfied with the development of aspects related to electronic legal deposit. However, there is no doubt that there are important challenges in the short and medium term:

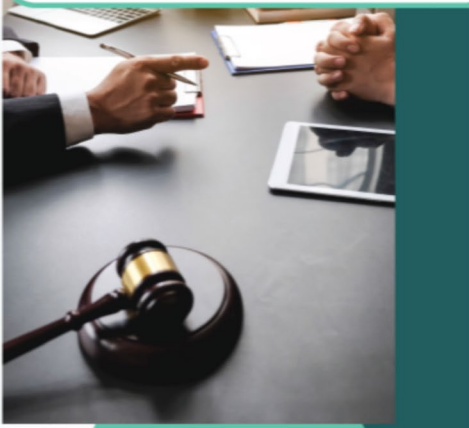
- Achieve full compliance with the preprint deposit
- Widen access to e-LD in more libraries and in the national e-lending system
- Use e-LD as base of AI developments, particularly in large language models
- Cooperation with right holders
- Including new contents: audio visual, podcasts, music, videogames
- Digital preservation
- Security of the information
- Try automatic cataloguing

## Taner Beyoğlu: National E-Legal Deposit System - From Legal Framework to Library Practices



The National Library of Türkiye

## HOW DID WE START?



### Legal Mandate

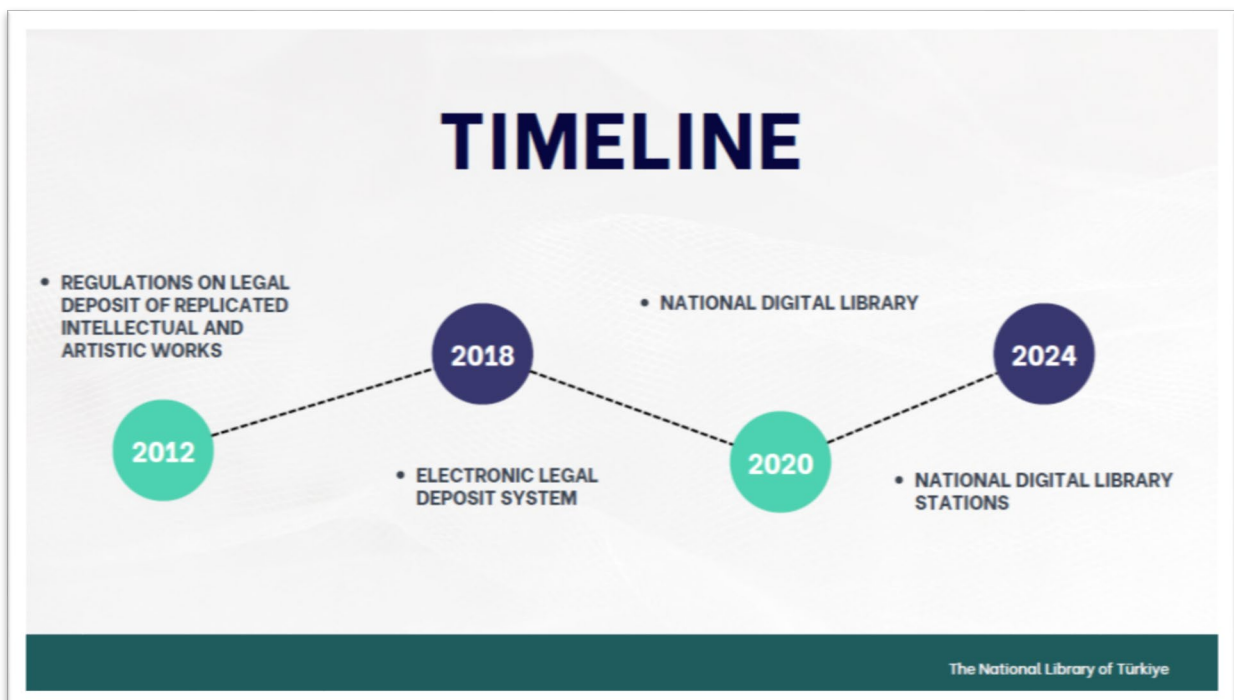
In Türkiye, the journey of legal deposit of electronic publications began in **2012** with the enactment of the Deposit Law. This law assigned the responsibility of depositing electronic publications to our National Library.

### Secure System Development


Following this legal mandate, we prioritized creating a secure system that respects copyright and prevents violations, while also being user-friendly for publishers.

### Stakeholder Engagement

Our efforts involved consulting with e-legal deposit obligators, authors, publisher associations, relevant public institutions, and various stakeholders, as well as examining similar implementations globally.








# EYDES

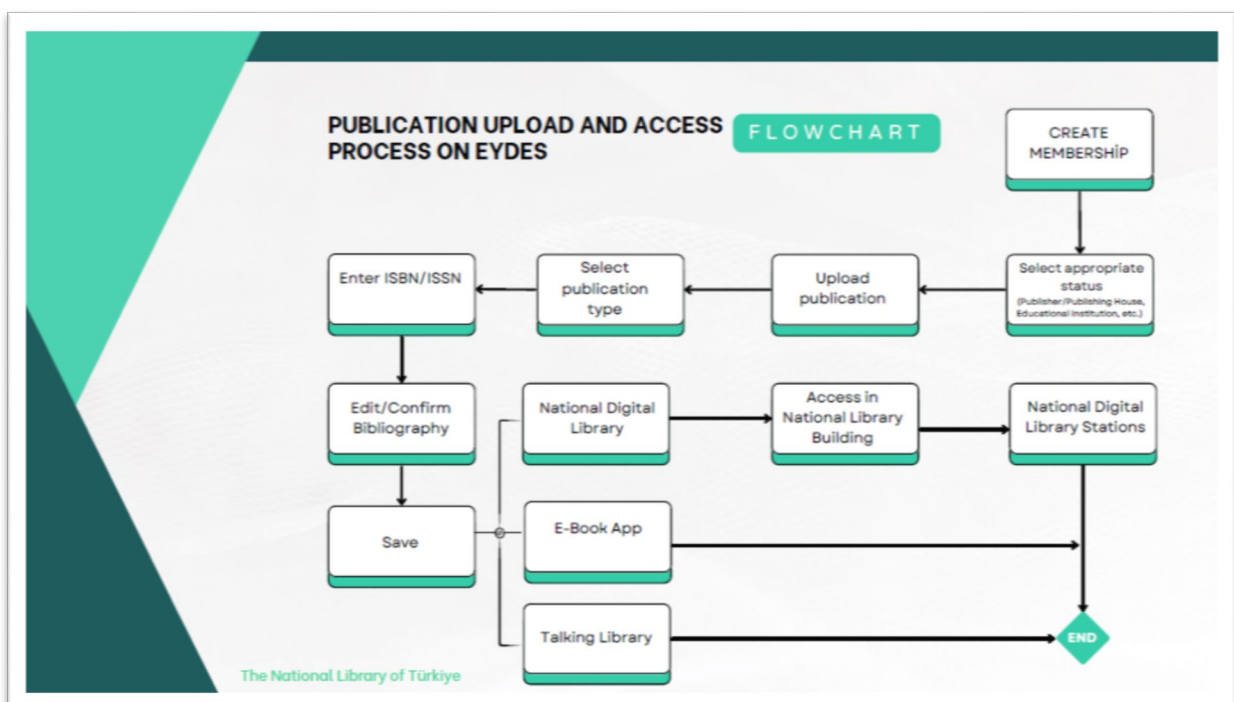
## ELECTRONIC LEGAL DEPOSIT SYSTEM



Following primary legislation in February 2012, new regulations came into force in the Türkiye in August 2012 enabling the National Library to deposit electronic publications (e-books, e-journals, e-thesis).

Electronic Legal Deposit is also referred to as Non-Print Legal Deposit (NPLD).

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## TYPES OF PUBLICATIONS DEPOSITED ON EYDES



### BORN-DIGITAL PUBLICATIONS

These are works created and made available in digital form. In Türkiye, this includes books, encyclopedias, albums, atlases, sheet music, and periodicals like newspapers, magazines, yearbooks, bulletins, and calendars.

Publishers are required to upload online electronic publications within **fifteen days** of their initial online transmission.



### PUBLICATIONS FOR THE VISUALLY IMPAIRED

These include both born-digital works and digital versions of hard copy publications, specifically formatted for accessibility. We currently request these in PDF format.

Publishers are required to upload offline electronic publications within **fifteen days** of reproduction.

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## TECHNICAL DETAILS OF EYDES

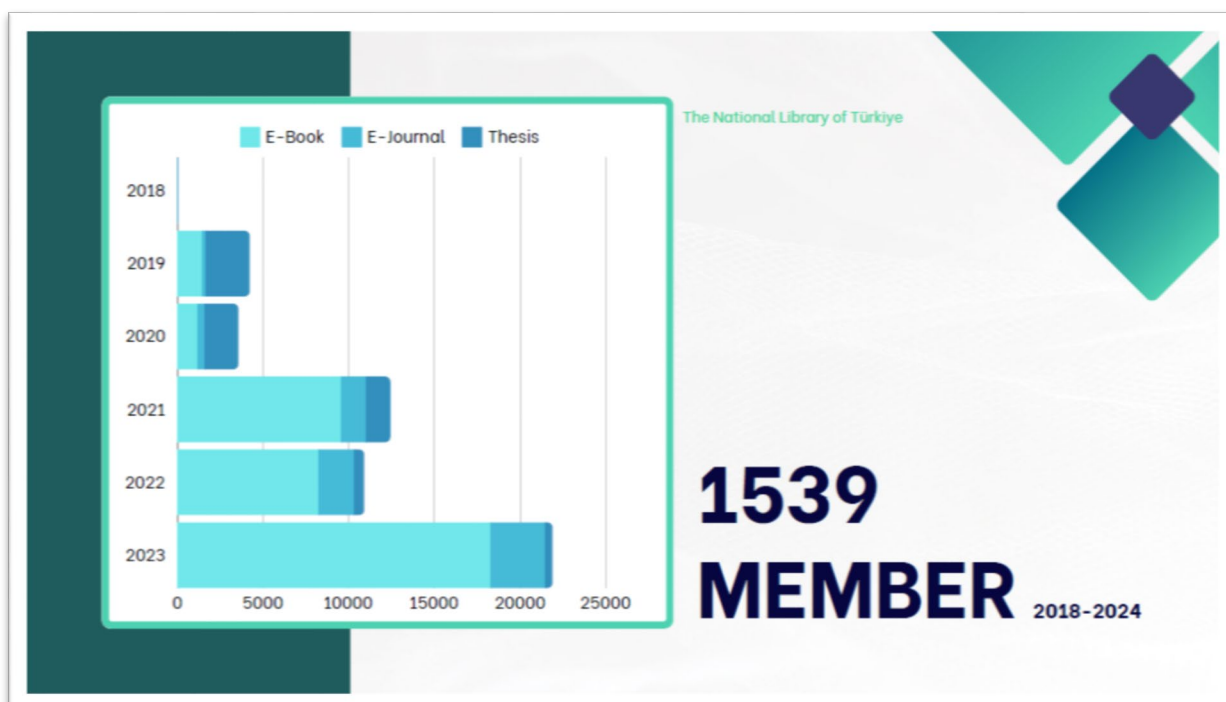


### SUPPORTED FORMATS

The system now allows e-legal deposit obligators to upload their publications in various formats, such as audio (mp3) and visual (pdf, epub, word).

The National Library of Türkiye





## ENSURING SYSTEM SECURITY ON EYDES

- THOROUGH SECURITY CHECKS**  
Before launching EYDeS, we performed thorough security checks and established robust protective measures in collaboration with TÜBİTAK, the Scientific and Technological Research Council of Türkiye.
- VERIFICATION PROTOCOL**  
We set up a verification protocol with the Ministry of Customs and Trade for identity checks of depositors.
- SECURE ACCESS**  
Six dedicated computers were configured with unique usernames, passwords, and IP addresses to ensure secure access to EYDeS within the National Library premises.


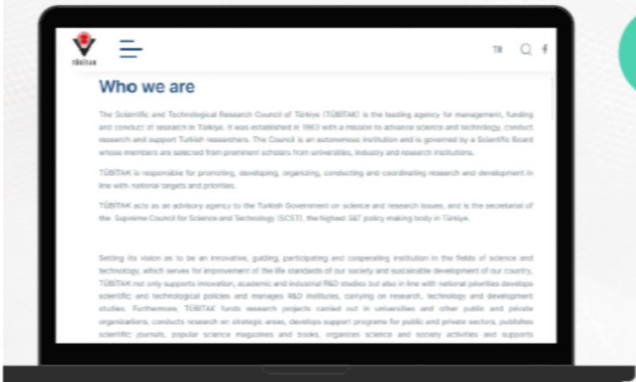
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### ROBUST SECURITY MEASURES

The technical development of EYDES involved creating a system with sufficient protection measures to prevent any infringement. Given the potential legal liabilities associated with even minor security breaches, we worked meticulously on these protections.

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### COLLABORATION WITH TÜBİTAK

Collaboration with TÜBİTAK ensured that multiple security tests and measures were put in place, including a user verification mechanism and data sharing protocols with the Ministry of Customs and Trade.



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**ACCESSIBILITY OF DEPOSITED PUBLICATIONS**



### IN-LIBRARY ACCESS

Due to copyright restrictions, the electronic works deposited on EYDES can only be accessed within the National Library building.



### SECURE VIEWING

Access is limited to secure computers designated for full-text viewing and reading, with restricted copying capabilities (no downloading, saving, or printing).  
Remote access to the deposited works is not available.

The National Library of Türkiye

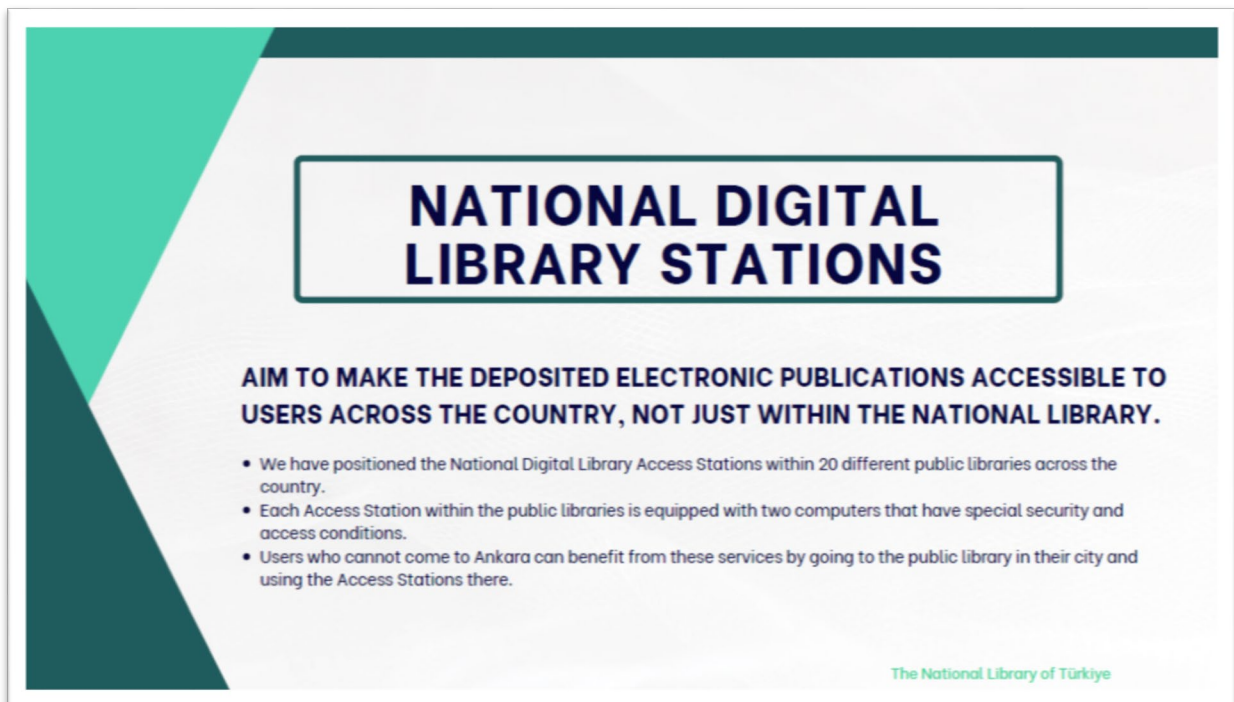
# NATIONAL DIGITAL LIBRARY

For nearly 10 years, the National Library has been serving its users through our Digital Library System, providing access to our digital collections, including manuscripts, rare works, non-book materials, periodicals, databases, and e-books/e-journals (digital-born). Recently, we have been working to make the collected works available through EYDeS, in compliance with copyright rules, to our users within the library building.

## WHAT ARE THE ADVANTAGES OF THE NATIONAL DIGITAL LIBRARY?

- Current publications are offered to our users through the National Digital Library system without requiring additional digitization efforts.
- Especially for visually impaired users, the opportunity to access current publications through programs that instantly convert **text to speech** is provided.
- In addition to born-digital publications, a digital copy of all physical publications is included within the scope of collection, making a significant **contribution to library archiving**.
- Consequently, the budget allocated for digitization efforts is also expected to decrease.

The National Library of Türkiye



**NATIONAL DIGITAL LIBRARY STATIONS**

**AIM TO MAKE THE DEPOSITED ELECTRONIC PUBLICATIONS ACCESSIBLE TO USERS ACROSS THE COUNTRY, NOT JUST WITHIN THE NATIONAL LIBRARY.**

- We have positioned the National Digital Library Access Stations within 20 different public libraries across the country.
- Each Access Station within the public libraries is equipped with two computers that have special security and access conditions.
- Users who cannot come to Ankara can benefit from these services by going to the public library in their city and using the Access Stations there.

The National Library of Türkiye



**ADAPTING TO THE DIGITAL AGE**

The National Library of Türkiye has taken significant steps to adapt to the digital age with the establishment of the Electronic Legal Deposit System (EYDES).

**SECURING AND ACCESSING WORKS**

We are committed to ensuring that our deposited publications are secure, accessible, and serve the needs of our diverse user base.

**CONTINUOUS IMPROVEMENT**

We look forward to your questions and discussions on how we can continue to improve and innovate in this vital area.

**CONCLUSIONS**

The National Library of Türkiye





## Contributors

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