

DIGITAL ARCHIVE

IIIF-COMPLIANT

**NAI**  
ARTIFICIAL INTELLIGENCE

**NU** **X<sup>2</sup>**  
IMAGES  
PHOTOS  
SCANS  
VIDEO  
AUDIO  
PDF & 3D

**WA** <sup>®</sup>  
DIGITAL ARCHIVE

GIVE LIFE TO YOUR DIGITAL TREASURES  
A I - P O W E R E D

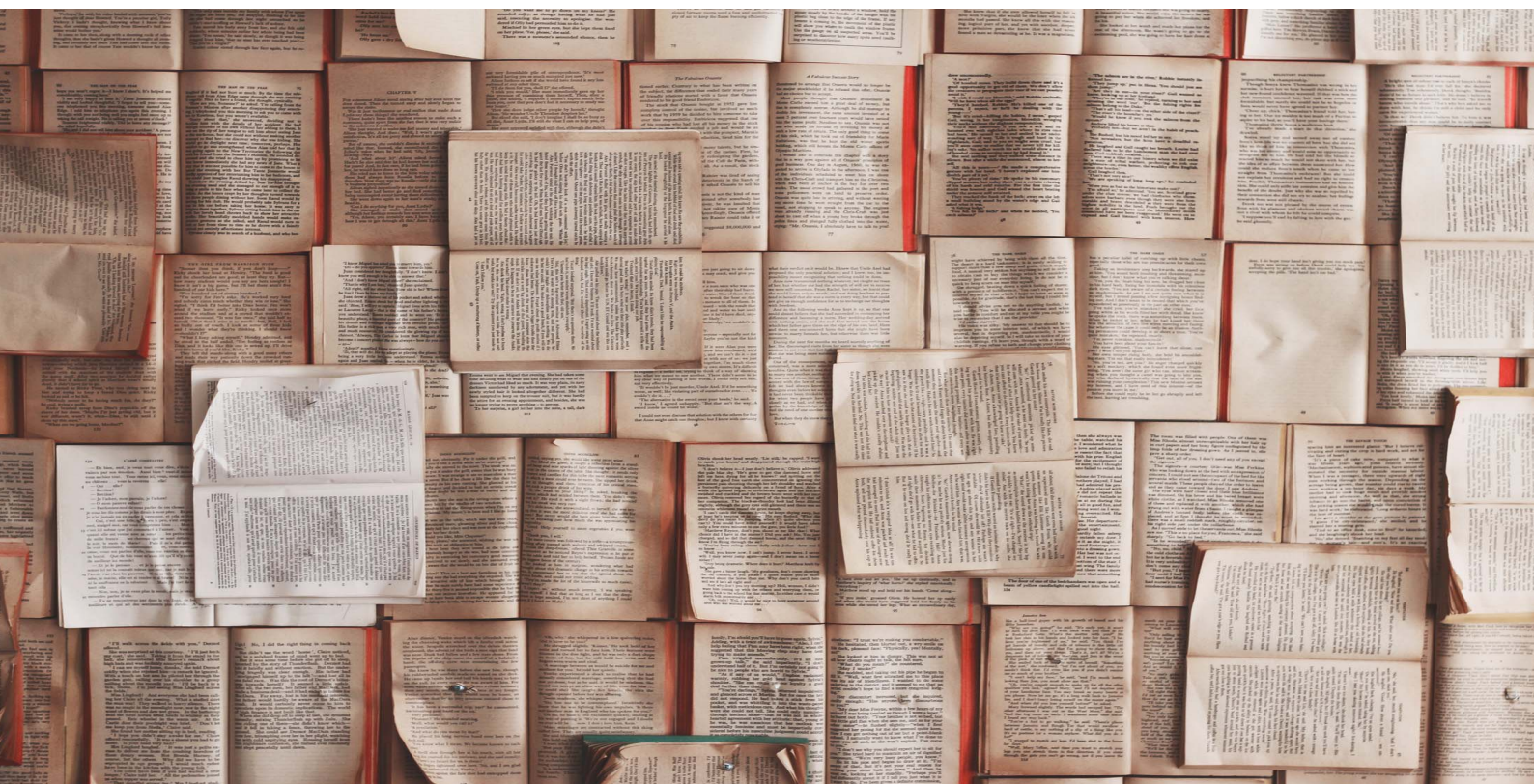
**NAINUWA** <sup>®</sup> **X<sup>2</sup>**  
AI-POWERED DIGITAL ARCHIVE SYSTEM

**TREVENTUS**  
MECHATRONICS

# CHALLENGES SOLVED BY NAINUWA<sup>®</sup> X2



**SAVING TIME**  
**FINDING THE RIGHT INFORMATION**  
**IIIF - COMPLIANT**



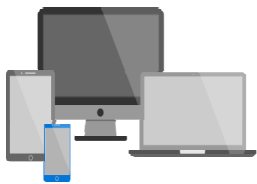
# WHY USING NAINUWA® ?

*NAINUWA® saves time & attracts users!*



## USER RIGHTS & ACCESS MANAGEMENT

The User Rights & Access Management within NAINUWA® X2 ensures secure and efficient control over who can view, edit or manage archived content. It involves setting permissions based on user roles, maintaining data integrity, preventing unauthorized access and ensuring compliance with legal and organizational policies. Proper management enhances system security and usability.



## RESPONSIVE DESIGN

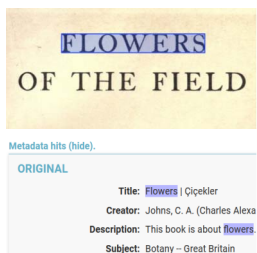
NAINUWA® X2 is ready for any device & display - whether it is a desktop, tablet or a mobile. Responsive design in a digital archive system ensures optimal usability. It automatically adjusts the layout and interface to fit different screen sizes, enhancing accessibility and providing a seamless user experience on any device.



## MULTIMEDIA - ALL CONTENT ON ONE PLATFORM

NAINUWA® X2 enables to upload various media types & formats and is in compliance with IIIF:

- + Books, newspapers, magazines
- + Documents, images, photos, maps, etc.
- + PDF, JPG, TIF, WORD etc.
- + Video & audio (optional)
- + 3D objects (optional)



## HIGHLIGHTING

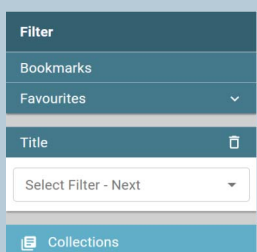
NAINUWA® X2 enables highlighting of full-text as well as metadata hits. This enhances search functionality by visually marking relevant search terms in documents and metadata fields. This feature helps users quickly locate important information within vast amounts of data, improving navigation and efficiency in accessing the desired content within the archive.



## DIRECT PREVIEW & STEPLESS ZOOM

Direct preview at any stage in a digital archive system allows users to instantly view documents without fully opening them. This feature speeds up the review process, enabling quick assessments of content during various stages of work.

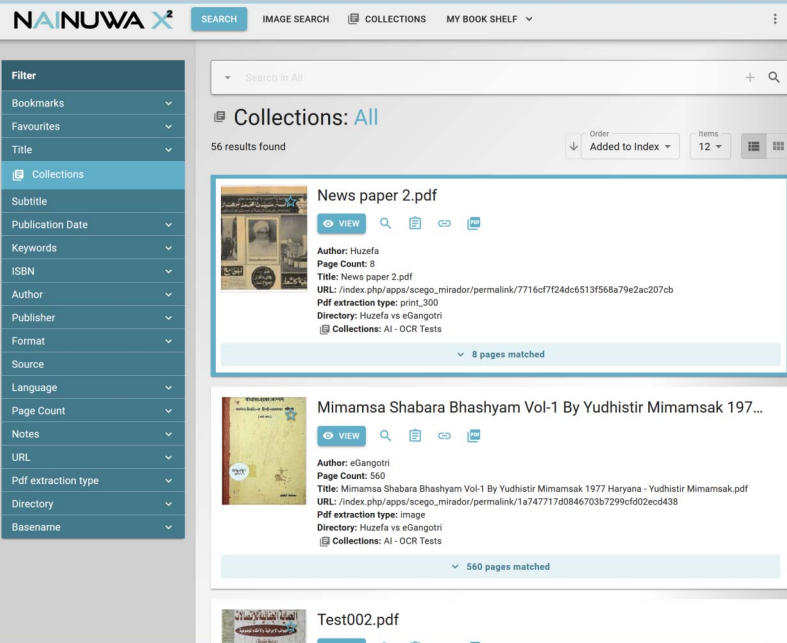
The stepless zoom allows users to smoothly and precisely adjust the magnification of documents and images. This feature provides enhanced viewing control and detail exploration.



## SEARCH BY FACETS / FILTERS

This feature enables users to refine search results by applying specific criteria such as date, author, document type or keywords. It helps narrow down vast datasets, making it easier to find relevant information quickly and efficiently.

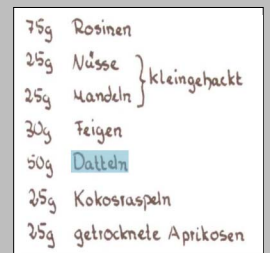
# SEARCH, VIEW & WORK EXPERIENCE



- + TEXT SEARCH
- + SEARCH BY IMAGES
- + FAST NAVIGATING



- + WORD BASED HIGHLIGHTING
- + METADATA & TEXT HITS



## IMAGE CLIPPING & PDF

NEW

NAINUWA<sup>®</sup> X2 offers advanced clipping and PDF functionalities. Those features within a digital archive system allow users to select and extract sections of documents, saving them as PDF files or exporting the clips as image files together with the recognized text. Moreover the PDF feature allows to export the found content - single pages, a selection of bookmarked pages or the entire book - into a PDF with individually selectable quality due to your needs.

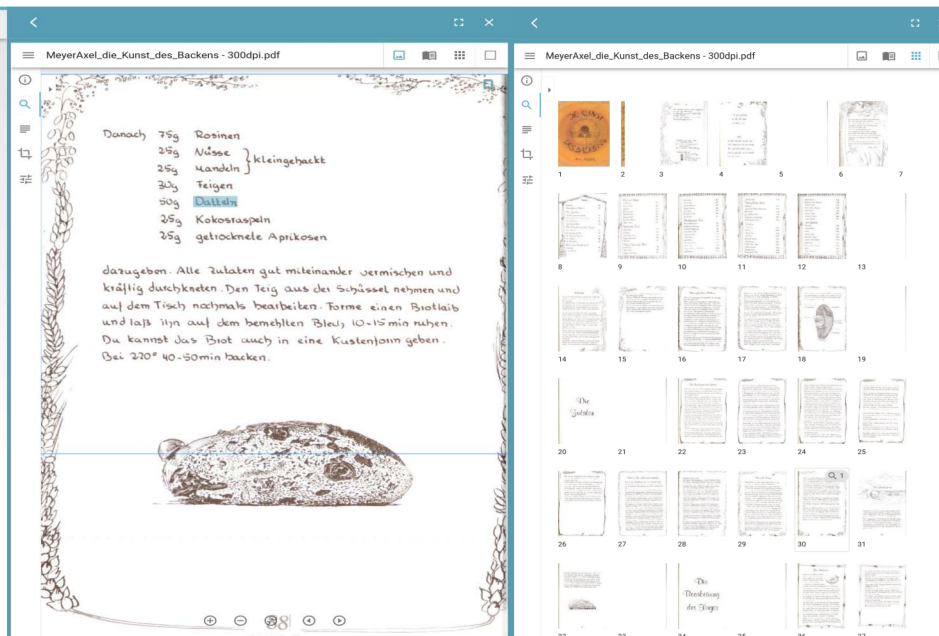
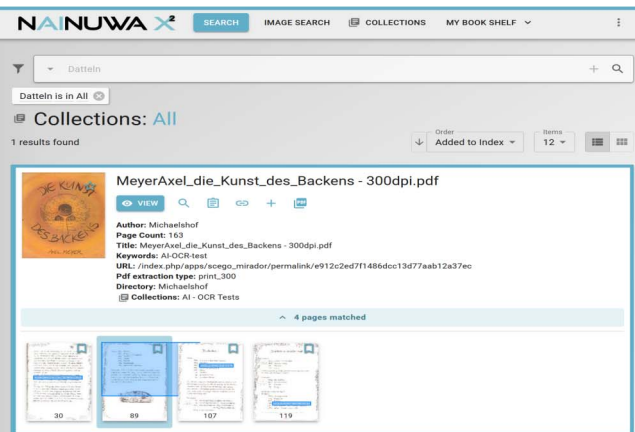


## BOOKMARKS & MY CUSTOM VOLUMES

NEW

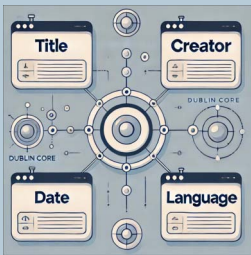
Those powerful tools help to enhance & accelerate the work of each user:

- + Bookmarks allow users to mark specific pages or sections for quick reference.
- + The Bookshelf feature enables users to organize and store frequently accessed documents.
- + My Custom Volumes let users create personalized volumes which can be used with the full feature set within NAINUWA<sup>®</sup> X2.



# WHY USING NAINUWA® ?

*Manage complex metadata with NAINUWA®!*



## METADATA EDITOR & MIGRATION TOOLS

The Metadata Editor and Migration tools allow content administrators to create, modify and standardize metadata across the platform. These tools facilitate the accurate organization and categorization of content. Migration tools ensure smooth transfer of data between systems, preserving metadata integrity and supports the integration of any international descriptive metadata standards such as e.g. Dublin Core, MODS, MARC, etc.

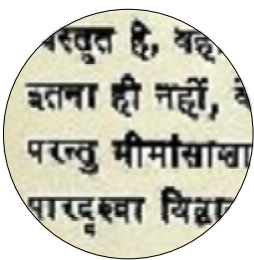
## AI - POWERED OCR (Optical Character Recognition) **NEW**

NAINUWA® X2 offers OCR processing by using bleeding-edge Artificial Intelligence models. Game changing benefits are:

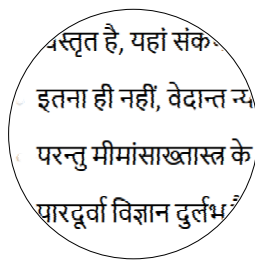
- + Over 190 available languages
- + Gothic/Fraktur recognition
- + Arabic, Chinese, Japanese, Vietnamese, Korean etc.
- + Handwriting recognition



ORIGINAL IMAGE



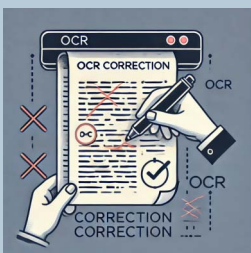
AI-OCR RESULT



ORIGINAL IMAGE



AI-OCR RESULT



## OCR CORRECTION

NAINUWA® X2 is equipped with an OCR correction feature which optionally enables users to collaboratively improve the accuracy of text recognition. After the OCR process, users can review and correct errors in the text, enhancing the quality of the digital archive. The corrected text can be either uploaded directly by the "community" (if users have the rights for that) or a supervisor can release each corrected text block individually.



## MULTI LANGUAGE FRONTEND NAVIGATION

This feature allows users to switch between different languages for the interface, enhancing accessibility and user experience. It enables to navigate the system in the preferred language and ensures that the archive's content is accessible to a global audience.



## STATISTICS

NAINUWA® X2 offers an interface to the open-source OpenSearch® analytics engine. This enables useful insights into user activity and document access. Metrics such as the number of views, downloads and search queries can be created. This supports administrators to monitor user behavior and optimize content.

# VIDEO & AUDIO with AI - Speech to Text



## VIDEO & AUDIO VIEWER

This feature enables users to watch, listen and navigate through archived video & audio material directly within the platform.

It supports various formats and offers the full compatibility with other NAINUWA® X2 features like bookmarking, fullscreen mode, clipping, etc.



## AI - POWERED "SPEECH TO TEXT"

This AI-powered service enables to transcribe and convert spoken words/language in video or audio files into searchable text. It supports multiple languages and adapts to various accents.

This ensures to quickly find and navigate to specific video & audio content by simply using the NAINUWA® X2 search.

**NAINUWA® X<sup>2</sup>**  
AI-POWERED DIGITAL ARCHIVE SYSTEM

## 3D VIEWER

The fully integrated 3D Viewer within NAINUWA® X2 enables users to interact with and explore three-dimensional models directly within the platform. This feature supports zooming, rotating and examining 3D objects from various angles.

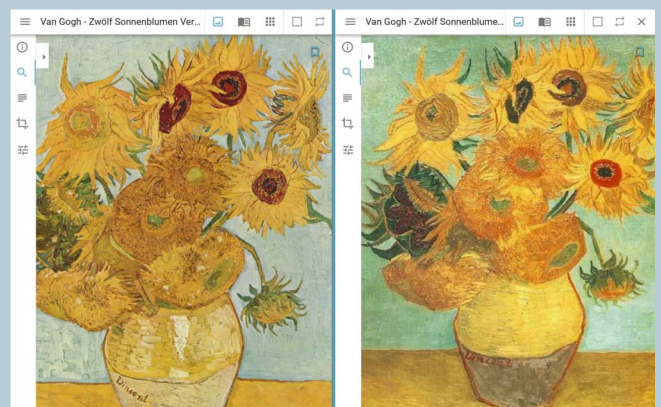
It enhances the visualization of art objects, artifacts, architectural plans, engineering models, virtual artworks and other 3D content, providing a more immersive and detailed analysis experience.



## COMPARE

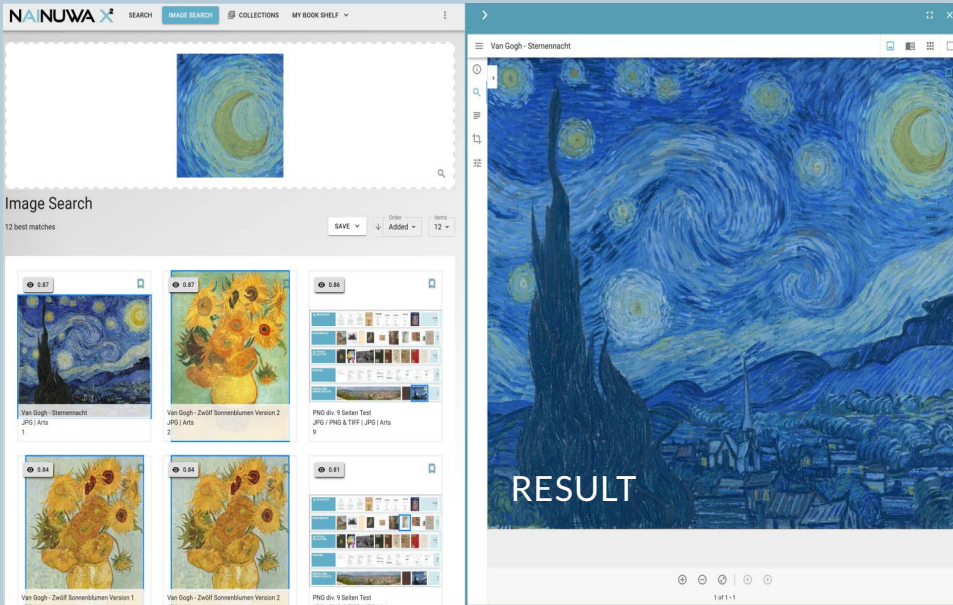
The "Compare" feature in NAINUWA® X2 allows users to view and analyze multiple documents side by side.

This functionality helps in identifying differences, similarities and changes between versions or related images, pages and books.



# SEARCH BY IMAGES

## AI - powered



### IMAGE

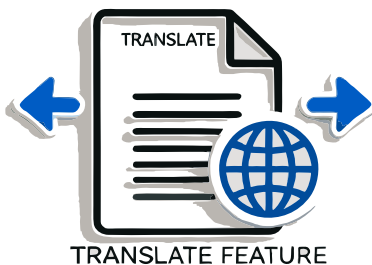
The shown image on the very left was used to trigger a search within the digital archive.

Any image, even a snapshot from a mobile, may be used to search for similar images within the platform.

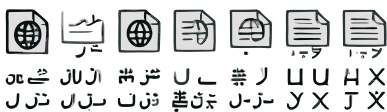
### SEARCH RESULTS

The module "Search by Images" within NAINUWA® X2 finds pages or images with similar content on the platform.

The embedded Artificial Intelligence ensures to enhance accuracy, recognizing patterns, objects and features for precise results.

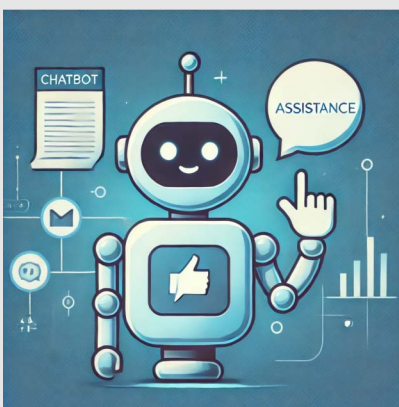


TRANSLATE FEATURE



# TRANSLATE

The "Translate" feature in NAINUWA® X2 allows users to convert text from one language to another directly within the platform. This tool enhances accessibility, enabling global users to understand and interact with content in their preferred language. Supporting multiple languages, it simplifies research and collaboration, making the archive more inclusive and versatile.



# CHATBOT

The "Chatbot" feature in NAINUWA® X2 supports users with instant assistance by answering queries to the found results. The interface is fully integrated in the results/image viewer of the platform which ensures a fast and intuitive access. This enables users to gather more information about the found results by simply asking questions within the interface like:

„Who is the creator of the painting? Please tell me more about the painter.“

This AI-powered chatbot upgrades the system with an additional huge information pool and ensures a powerful research for any user type.

# NAINUWA® X2 REFERENCES



**NATIONAL FUND**  
OF THE REPUBLIC OF AUSTRIA



**THEODOR KRAMER  
GESELLSCHAFT**



**UNIVERSITÉ DU  
LUXEMBOURG**



**UMEÅ UNIVERSITY**



**STANDESAMTS- UND  
STAATSBÜRGERSCHAFTSVERBAND**  
**EISENSTADT UND UMGEBUNG**



**ACADEMY OF SCIENCES  
OF TURKMENISTAN**



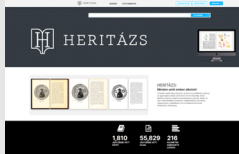
**OTTO VON HABSBURG  
FOUNDATION**



**STATE UNIVERSITY  
GORONTALO**



**STRATEGICAL AND  
BUDGETARY OFFICE (SBB)**



**TURKISH LANGUAGE  
INSTITUTE**

**NAINUWA® X<sup>2</sup>**  
AI-POWERED DIGITAL ARCHIVE SYSTEM

**AND MANY MORE...**

**NAINUWA® X2 is available as On-Premises & Cloud license.**

Customers are established in various sectors:  
Libraries. Archives. Universities. Ministries.  
Publishers. Museums. Art Galleries.  
Technical bureaus. Banks. Industries.  
Lawyer & Tax offices.

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