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New digitization workflow of the National Technical Library in theory and practice

Řihák, Jakub; Kamrádková, Kateřina
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New digitization workflow of the National Technical Library

In theory and practice

Jakub Řihák

The Development of Electronic Services Department
National Technical Library, Prague, Czech Republic

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The National Technical Library

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- In the centre of technical universities campus
- 150 employees
- Mainly technical collections

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Outline

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- Previous state of digitization in the NTL
- Main issues of our digitization
- Changes made
- Conclusion and future work

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Things that were

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- Digitization began in the year 1998
 - Small scale
 - Primarily focused on document preservation
- Documents mainly on CD-ROM
 - Provided only on special computers
- Served as a base for future digital library

- An idea to provide something more
 - Our library acquired system for publishing of the digitized documents
 - Kramerius 3
- Change in digitization policy
 - University textbooks will also be digitized
 - Main criterium
 - Number of loans per year
- New working place was created for this purpose
- In 2009 NTL joined „eBooks on Demand: A European Library Network (EOD)“ project

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Main issues

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- Different image formats used for publishing
 - PDF for university textbooks
 - JPEG for EOD books

- Different image quality

- Different naming convention

- Different storage place for archived documents

- But ALL digitized documents had to be published in the same digital library
 - Files sometimes could not be found (!!!)
 - They had to be renamed often

- Different image formats generated inconsistency in the digital library
 - Great issue during upgrading to the newer version

- Between years 2008 and 2011
 - 2941 documents were digitized
 - Only 862 of them were published

- Caused by
 - Time consuming processes (OCR, metadata creation)
 - Only one employee for everything

- Solution: **automation and new workflow**

- At the end of 2011
 - Decision made to change the digitization policy of the NTL

- Main focus on:
 - Digitization for the EOD project
 - Digitization of thematic historical collection
 - Digitization of newly acquired university textbooks

- Update to the new version of the digital library
 - Kramerius 4 (K4)

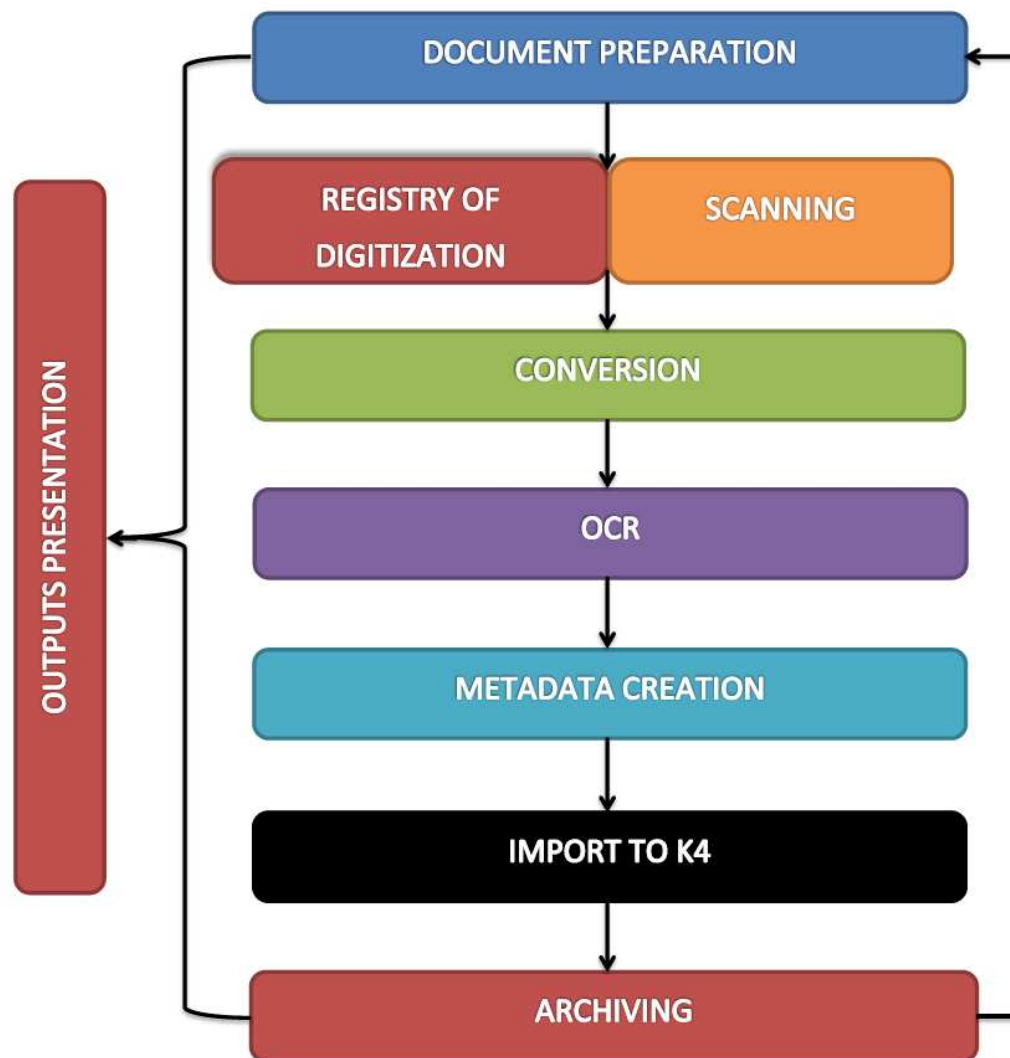
- Documents from Historical Collection (HC) could be published without restrictions given by the Copyright Law via the Internet
- Students didn't seem to care much about older textbooks which appeared in the digital library
 - This was caused by used selection criteria
 - Previously made lists of textbooks to be digitized were obsolete
- K4 is more user friendly

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New digitization workflow schema

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- We needed to write down each process in the workflow
- Image outputs were standardized
 - We only produce TIFF files
 - Archived
 - Converted to other formats when needed for publishing
 - JPEG
 - JPEG2000
 - Automated batch conversion
 - Stored on the image server

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What changes we made?

Image server

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- Used for providing digitized documents in JPEG2000 format
 - Allows streaming of large images via the Internet
- Very useful when providing digitized documents from our historical collection
 - In high resolution
- Short example

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What changes we made?

Naming convention

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- Redefined
 - Because of the automation and metadata creation
 - System numbers from library catalogue
 - Signatures marks added to the name in case of textbooks
 - Metadata editor works with them
- Finally no special characters and diacritic (!!!)

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What changes we made? Storage of the documents

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- Only one storage place
- Predefined structure in the file system
 - Easier to find the documents and track what is done and what is still underway
- This folder can be used in the OCR process as a „Hot Folder“
 - All documents in this folder are processed

- Previously
 - Abbyy FineReader 10
- Now
 - Abbyy Recognition Server 3.0
 - Network Shared „Hot Folder“
 - Six processing stations
 - One verification station (more are needed)
 - 25 000 processed pages/month
- Output
 - Text files (.txt)
 - We will change it to ALTO XML format

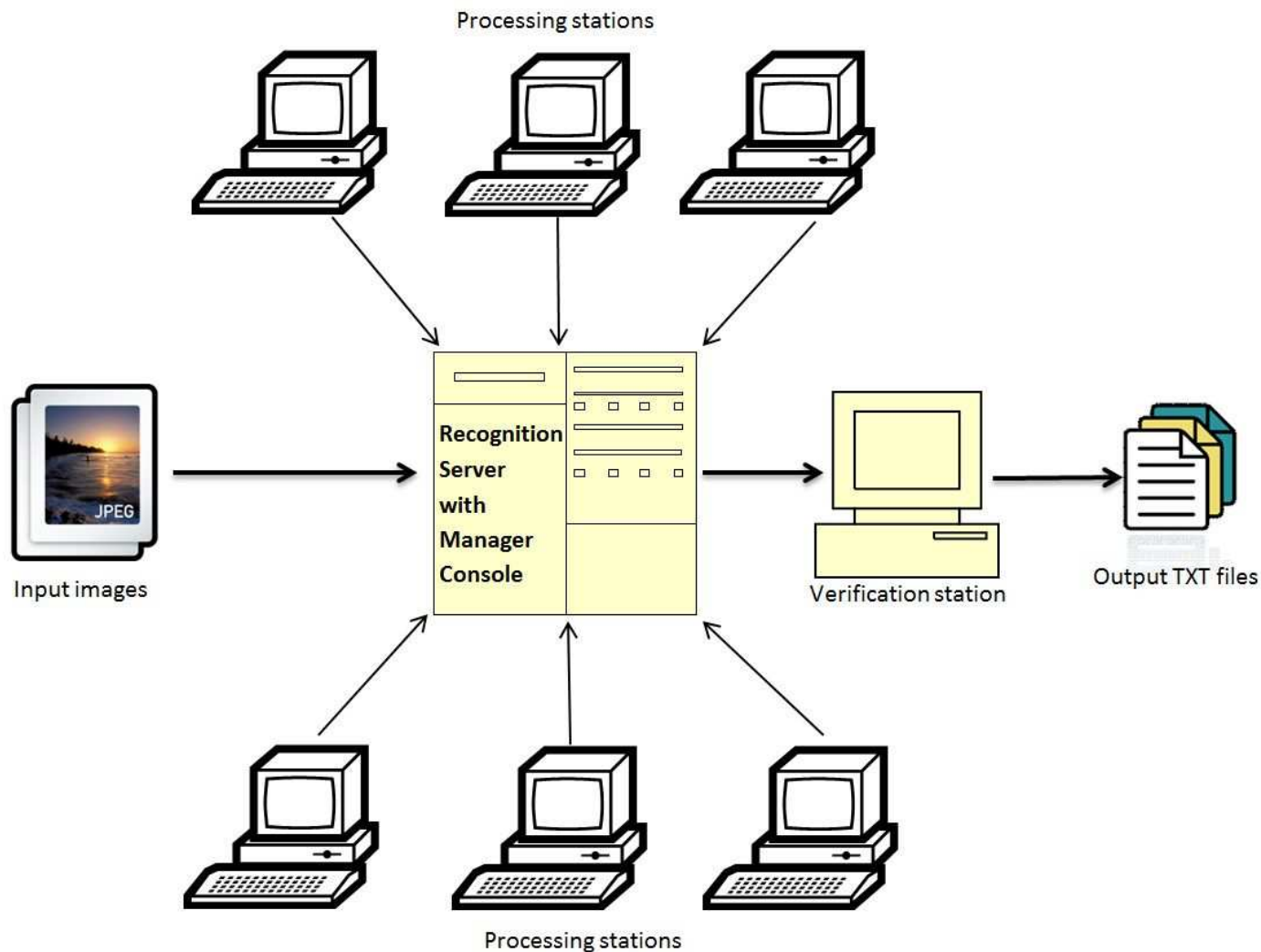
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What changes we made?

Changes in the OCR

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What changes we made?

Number of employees

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- Digitization takes place only in one department
 - 7 employees
 - 1 employee – digitization of textbooks
 - 6 employees – digitization of HC
- 1 intern working on OCR verification
- 1 intern for other administrative work
 - Good experience - we are looking for more

- Digitization focused more on providing an interesting documents to the library customers
- Processes can be easily tracked
- More automation brings more time to solve other issues and develop this service

- **Something to do in the future:**
 - Implement new metadata editor for K4
 - More automation
 - Cooperation with technical universities
 - Textbook collections for students
 - More focus on presentation

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Links to workflow schemes

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- [Document selection and preparation](#)
- [Register of Digitization update](#)
- [Scanning](#)
- [Conversion](#)
- [OCR processing](#)
- [Metadata creation](#)
- [Import to Kramerius 4](#)
- [Archiving](#)
- [Outputs presentation](#)

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Thank you for your attention! 😊

jakub.rihak@techlib.cz

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