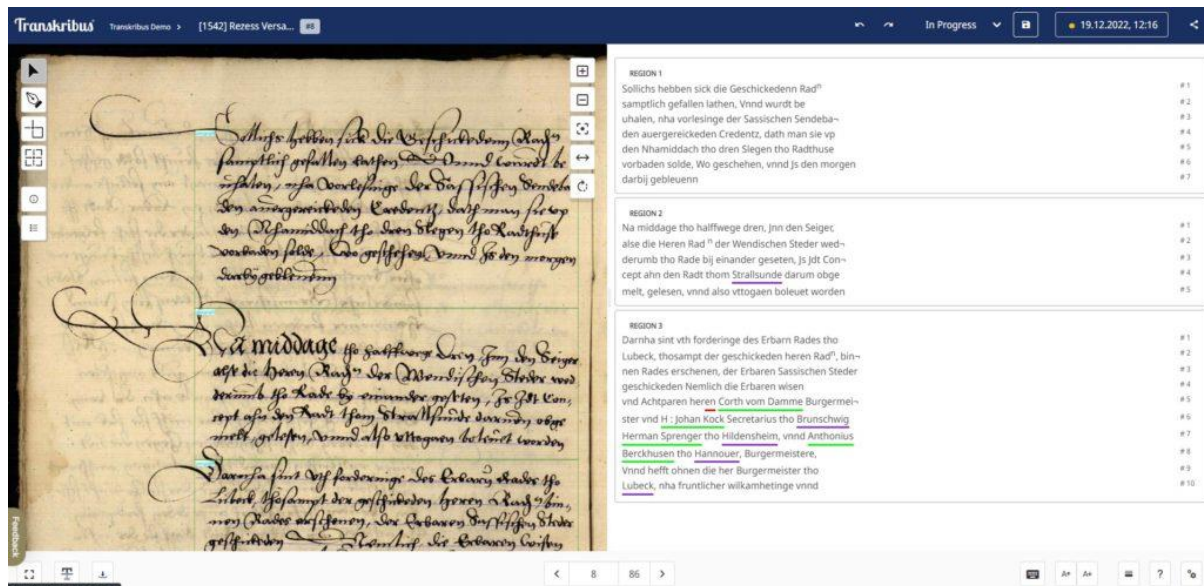


AI in Historical Document Transcription - Understanding Transkribus



Subject: History, Technology, AI Literacy

Level: Secondary Education (12-15 years old)

Duration: 60 minutes

Curriculum Links:

This lesson aligns with the following **Junior Cycle History learning outcomes:**

- 1.5: investigate the job of the historian, including how s/he finds and uses evidence to form historical judgements which may be revised and reinterpreted in the light of new evidence
- 1.6: debate the usefulness and limitations of different types of primary and secondary sources of historical evidence, such as written, visual, aural, oral and tactile evidence; and appreciate the contribution of archaeology and new technology to historical enquiry
- 1.11: make connections and comparisons between people, issues and events in different places and historical eras

Key Skills:

- Managing information and thinking: Students will gather, record, organise and evaluate information about historical documents and Transkribus.
- Being creative: Students will explore options and alternatives for using AI in historical research.
- Communicating: Students will listen and express their ideas clearly during class discussions.
- Being literate: Students will express ideas clearly and accurately in their homework assignments.

Learning Outcomes:

By the end of this lesson, pupils will be able to:

1. Analyse and discuss challenges associated with historical documents.
2. Understand what Transkribus does and why it's useful for historical research.
3. Recognize how AI helps in transcribing historical documents.
4. Discuss benefits and challenges of using AI in historical research.
5. Think about how technology might change the way we study history.

Materials Needed:

- Computer with internet access and projection capability
- Projected image of the historical document (provided)
- Video: "Transkribus: Bringing Historical Documents into the Digital Age"

https://www.youtube.com/watch?v=R1RLfaH_Xeg



- Printed copies of Worksheet: Transkribus Comprehension
- Whiteboard or digital board for class discussion

Lesson Structure:

1. Document Analysis and Discussion (10 minutes)
2. Segue and Introduction to Transkribus (5 minutes)
3. Video Viewing (5 minutes)
4. Individual Work: Comprehension (15 minutes)
5. Group Discussion: Video Content (10 minutes)
6. Introduction to AI in Historical Document Transcription (5 minutes)
7. Class Discussion: AI in Historical Research (10 minutes)

Detailed Lesson Plan:

1. Document Analysis and Discussion (10 minutes)

Begin the lesson by projecting the image of the historical document.

Say: "Let's start our lesson by examining this historical document. Take a moment to look at it carefully."

After giving students a minute to observe, facilitate a discussion using these questions:

- What's your first impression of this document?
- What features of the document stand out to you?
- Can you identify any specific elements in the document? (e.g., text, illustrations, symbols)
- How old do you think this document might be? What makes you think that?
- What challenges might a historian face when trying to read or understand this document?
- If you were tasked with transcribing (writing out) all the text in this document, how long do you think it would take you? What difficulties might you encounter?
- Why do you think it's important for historians to be able to read and understand documents like this?

2. Segue and Introduction to Transkribus (5 minutes)

Segue:

"You've all made excellent observations about the challenges of working with historical documents like this. Historians have long faced these difficulties, often spending years deciphering and transcribing important texts. But what if there was a way to make this process faster and more efficient? This is where modern technology comes in."

Introduction to Transkribus: "Today, we're going to learn about an interesting tool called Transkribus. It uses artificial intelligence to help read old documents like the one we just looked at. Transkribus can potentially do in minutes what might take a historian months or even years to complete manually. As we explore this technology, think about how it might change the way we study history. What new possibilities might it open up? What problems might it solve?"

3. Video Viewing (5 minutes)

"Let's watch a short video that explains how Transkribus works and why it's so exciting for historians and researchers."

Play the Transkribus video for the class.

4. Individual Work: Comprehension (15 minutes)

"Now that we've watched the video, let's see what you remember and understand about Transkribus. I'm giving out a worksheet with some questions. Answer these on your own. Don't worry if you're not sure about everything - we'll discuss it as a class afterwards."

Distribute the Transkribus Comprehension Worksheet and allow students time to complete it.

5. Group Discussion: Video Content (10 minutes)

Go through the worksheet together, encouraging discussion and clarifying any misunderstandings.

6. Introduction to AI in Historical Document Transcription (5 minutes)

"As we saw in the video, Transkribus uses artificial intelligence. AI is becoming increasingly important in studying history. It can help read old handwriting or printed text much faster than a person could. Sometimes it can even read writing that's hard for us to understand."

7. Class Discussion: AI in Historical Research (10 minutes)

Facilitate a discussion using the following questions:

- How do you think tools like Transkribus might change the way historians work?
- What are some benefits of using AI to read old documents?
- Can you think of any potential problems or ethical concerns that might arise when using AI for this purpose?

- How might our understanding of history change if we can easily read and analyse many more historical documents?

Differentiated Homework Assignments*:

Option 1 (Beginner):

Make a poster about Transkribus. Include:

1. What Transkribus does (in 1-2 sentences)
2. Draw or find a picture of an old document
3. List 2 good things about using Transkribus
4. Write one question you have about using AI to study history

Option 2 (Intermediate/Advanced):

Write a short story (150-200 words) about a historian's experience with Transkribus. Include:

1. The historian's frustration with trying to read old documents before using Transkribus
2. Their first experience using Transkribus and how it changed their work
3. One challenge they still face even with the new technology
4. How they feel about using AI in their research now

Assessment Criteria:

- Participation in class discussions
- Completion of worksheet
- Understanding of Transkribus and its use of AI
- Creativity in presenting information or creating a story
- Ability to think about both benefits and challenges of the technology
- For Option 2: Demonstration of empathy with the historian's experience and critical thinking about the impact of new technology

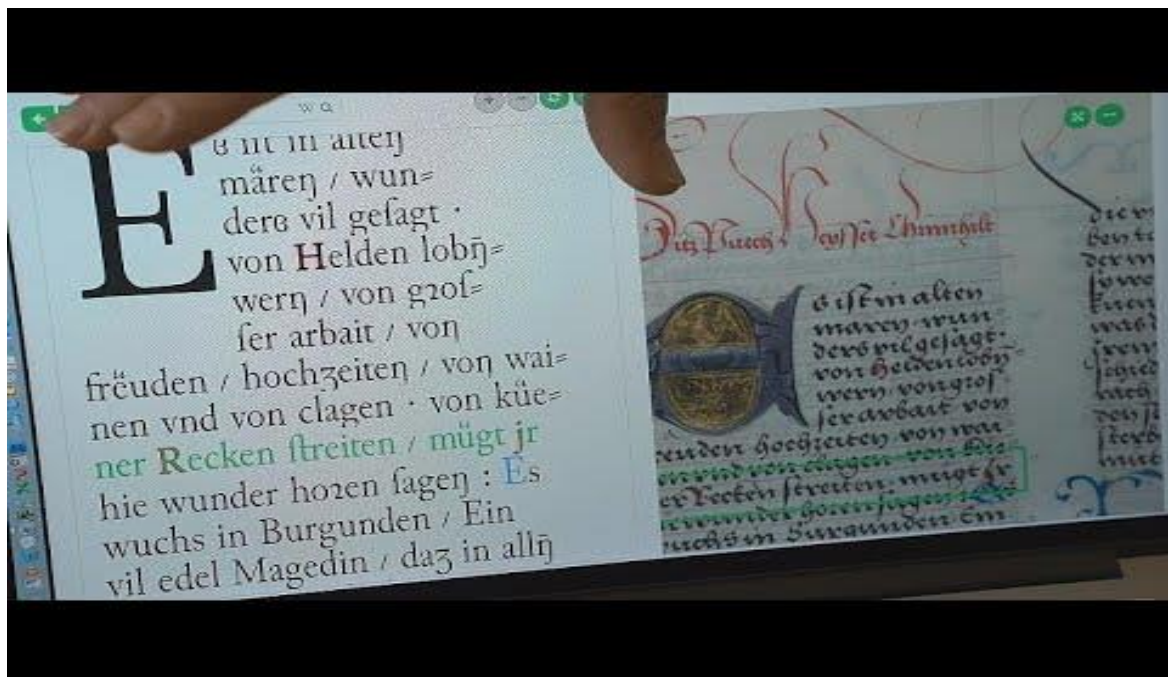
*Teachers should choose the most appropriate homework option based on individual student abilities and interests. These options allow for differentiation while ensuring all students engage with the key concepts of AI in historical research.

Additional Resources:

- Transkribus website: <https://readcoop.eu/transkribus/>

- EuroNews feature (4mins)

<https://www.youtube.com/watch?v=TCfBaOxN8Hw>



Appendix

Old manuscript:



Transkribus Comprehension Worksheet

The screenshot displays the Transkribus software interface. On the left, a handwritten manuscript page is visible, with a blue selection box highlighting a portion of the text. On the right, the transcription of the selected text is shown, organized into three regions. The transcription is in German and discusses historical events related to the 'Geschickedenn Rad' (Wheel of Fate) and the 'Wendischen Steder' (Wendish Places).

REGION 1

Sollichs hebben sich die Geschickedenn Rad⁹ samptlich gefallen lathen. Vnnd wurd be-
uhalen, nha vorlesinge der Sassinischen Sendeba-
den auergereickeden Credentz, dath man sie vp
den Nhamiddach tho dren Slegen tho Radthuse
vorbaden solde. Wo geschehen, vinnnd js den morgen
darbij gebleuenn

REGION 2

Na middage tho halffwege dren, Inn den Seiger
alse die Heren Rad⁹ der Wendischen Steder wed-
derumb tho Rade bij einander geseten, js Jdt Con-
cept ahen den Radt thom Stralsunde darum obge-
meit, gelesen, vinnnd also vttogeen boleuet worden

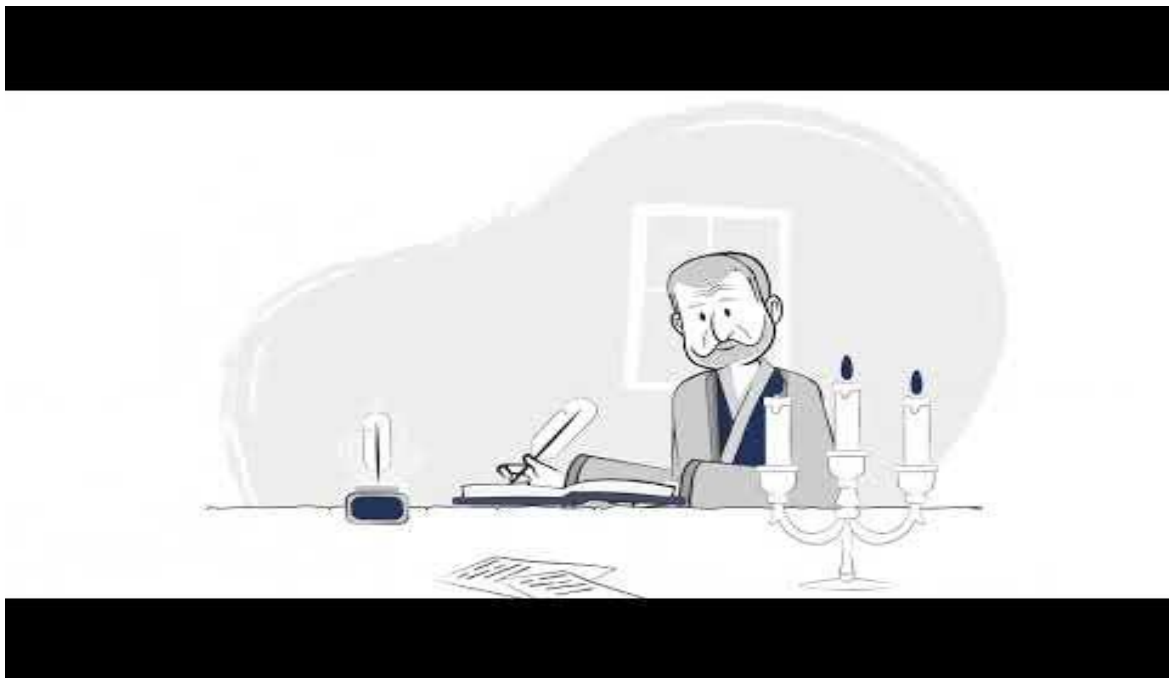
REGION 3

Darnha sint vth forderinge des Erbarn Rades tho
Lubeck, thosampt der geschickeden heren Rad⁹, bin-
nen Rades erschenen, der Erbarn Sassinischen Steder
geschickeden niemlich die Erbarn wisen
vnd Achtparen heren Corth vom Damme Burgermei-
ster vnd H: Johan Kock Secretarius tho Brunschwig
Herman Sprenger tho Hildensheim, vinnnd Anthonus
Berckhusen tho Mannouer, Burgermeistere,
Vinnnd hefft ohnen die her Burgermeister tho
Lubeck, nha fruntlicher wilkamhetinge vinnnd

Instructions:

Read the passage about Transkribus or watch the video here

https://www.youtube.com/watch?v=R1RLfaH_Xeg



Answer the following questions in complete sentences and choose the correct answer for the vocabulary questions.

"Today, we are used to writing things down with our computers and smartphones. We have almost forgotten that we used to write in a completely different way for hundreds of years. We have produced millions of books, letters, and documents. Accessing those materials has become a real challenge, for professionals as well as everybody else. Bringing this written heritage into our digital world of today is exactly what Transkribus is for. Transkribus helps you turn your historical material into digital text. It helps you with manual transcription, but the real power of Transkribus lies in artificial intelligence. Automatically transcribe thousands of pages using the public AI models shared by our wonderful community, or even train your own model for your specific material. And this is where the fun really starts. Editing, annotating, and enriching your material with metadata can easily be done with Transkribus—make the most of your documents! Finally, now that your material has come to the digital world, you can provide access to it and share it with others."

Comprehension Questions:

1. What are we used to doing with our computers and smartphones today?
2. Why has accessing millions of books, letters, and documents become a challenge?
3. What is the purpose of Transkribus as described in the text?
4. In what ways does Transkribus assist with manual transcription?
5. What is described as the 'real power' of Transkribus?
6. How can users of Transkribus utilize AI models?
7. What activities can be done once historical material is digitized using Transkribus?

8. What are the benefits of bringing historical materials into the digital world, according to the text?

Vocabulary Questions:

9. What does "artificial intelligence" refer to in the context of Transkribus?

- A) Creating intelligent robots.
- B) Using human-like intelligence in machines to perform tasks.
- C) Developing new computer games.

10. What does "transcribe" mean as used in the context of Transkribus?

- A) To scan and store images of documents.
- B) To convert handwritten or printed text into digital text.
- C) To translate texts from one language to another.

11. What does "accessing" imply in the text?

- A) Preventing entry.
- B) Obtaining entry or retrieval of digital information.
- C) Locking data.