Ditching Transkribus: Local Automatic Text Recognition with Loghi

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About Me

- background in software engineering
- Okt 2023: PhD in Computerised Image Processing
 - specialisation: handwritten text recognition
 - o focus: Astrid Lindgren's shorthand manuscripts
- since April 2023: software engineer at Popular Movements' Archive Uppsala
- Software Carpentries instructor
- Code Refinery ambassador

Ice Breaker

- your name
- 1-2 sentence about your field/background
- your favourite pastry/snack to have with coffee/tea

Today's Goal:

Learn how to use Loghi for Automatic Text Recognition (ATR)

What is Loghi?

- "comprehensive toolkit" for ATR
- developed by KNAW Humanities Cluster, Netherlands

Why Loghi and not Transkribus?

Transkribus

- business model not suitable for everyone
- requires data upload to foreign server
- no model export

Loghi

- fully open source and free
- locally hosted ⇒ full control of data and models

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Loghi

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- locally hosted ⇒ full control of data and models
- caveat: no transcription interface
 - o check out eScriptorium, for an open source Transkribus alternative

Scenario

From a previous project on Norwegian handwriting, we have a collection of transcriptions that were used to train a deep learning model.

We want to expand the collection with handwritten documents from **Person X** but don't want to spend endless hours transcribing everything by hand.

⇒ Learn how to make use of the prior work, in order to kickstart our new transcription project!

Plan for Today

- 1. Introduction to Automatic Text Recognition (ATR)
- 2. Setting up Loghi with Docker
- 3. Using a pre-trained model to recognise text
- 4. --- Break ---
- 5. Creating training data from existing annotations
- 6. Fine-tuning and using a small custom model
- 7. Final questions and wrapping up

Pre-Flight Checklist

Material

- downloaded?
- unzipped?
- know where it is?

Docker

• installed?

Nvidia GPU Users:

- drivers updated?
- Nvidia's docker extension installed?

Questions?

A Few Final Words Before We Dive In