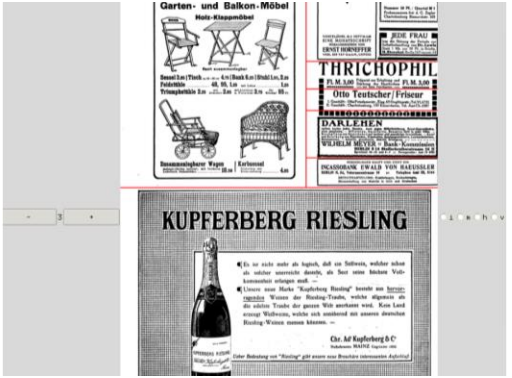
MMD01 Interactive Page Segmentation

Background

While the problem of Page Segmentation can be considered 'solved' in many applications, reliably detecting and extracting visual material from historical newspapers remained a problem. Recently the "Newspaper Navigator" project gained some remarkable success by training a model based on detectron 2 with millions of crowd-sourced annotations on american historical newspapers. It would be desirable to make this model usable for page segmentation in various applications in the field of digital editing.



Goal

- Incorporate the predictions from Newspaper Navigator into a graphical user interface that allows to view, but also easily correct the predicted bounding boxes of visual material.

Tasks

- Get familiar with Newspaper Navigator and Detectron 2 and set up a pipeline to perform visual element detection
- Show the results of the process in a graphical user interface. Depending on the scope of the project and interest of participants, an existing python-based interface can be used or a new one can be created
- Export the segmented images and a json file containing the coordinates of the bounding boxes.

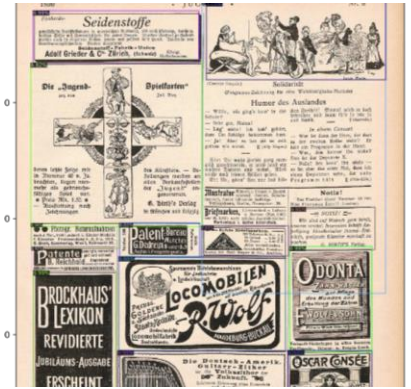
Johanna Sophia Störiko

johanna.stoeriko@uni-goettingen.de

MMD02 Evaluating the Newspaper Navigator Model

Background

While the problem of Page Segmentation can be considered 'solved' in many applications, reliably detecting and extracting visual material from historical newspapers remained a problem. Recently the "Newspaper Navigator" project gained some remarkable success by training a model based on detectron 2 with millions of crowd-sourced annotations on American historical newspapers. In this project you will examine the accuracy of the model on advertisement pages from the German cultural magazine "Die Jugend".



Goal

- Process the provided data with the Newspaper Navigator Model and compare the results to the given ground truth.

Tasks

- Find a common data representation for both, the outputs from newspaper navigator and the provided ground truth
- Decide on a metric to use to compute accuracy
- Compute the accuracy of the visual element detection on the data given

Johanna Sophia Störiko
johanna.stoeriko@uni-goettingen.de