

# A Paper Full of Things

## Quantitative and Qualitative Approaches to Early Modern Newspaper Advertisements

The **Basler Avisblatt**, one of many intelligence newspapers that became popular in the eighteenth century, contains all kinds of **classified advertisements**, for selling books, renting rooms, offering jobs or looking for lost poodles. It reflects myriads of ways to organise economic exchange, to link persons of complementary

interests, to spin the socioeconomic web of a town in transition, **from early modernity to the industrial age**. The huge mass of information found in seemingly innumerable advertisements – intelligence newspapers like this often appeared over many decades – is the main reason why this source type has not been

considered for closer systematic and content-related studies so far. By using **digital tools and computational methods**, we want to facilitate an **extensive and comprehensive analysis** of the Avisblatt, combining quantitative with qualitative approaches.

Evolution of the **Basel Avisblatt**, 1729–1844  
pages per year



The digitized collection of the Avisblatt, published in **6625 issues** from 1729 to 1844 with a total of **47 495 pages** and around **750 000 adverts**, has been uploaded into **freizo**, an online data base and working environment by **data futures**. Every year and every issue is now available as **IIIF manifest**. We enhanced the **Mirador** annotation mask to categorize the single ads, building up the data base.

environment

Every ad is annotated and classified on a first level, according to **content, type and transaction mode**.

The subprojects can **filter subsets** after the first annotation step and, with adapted masks, classify further, according to research interests.

Up to now, the classification is done manually. After annotating five years, the classified advertisements will be used for **machine learning** to enable the classification of all adverts in the whole corpus on a first level.

annotation



Generating a database through annotation

Verkauf. 13. Aechter moussirender Muskateller Rheinwein, das wir in merkwürdiger und höchst angenehmer Weise durch die Gabe eines feinen Geschmacks zur höchsten Beachtung hienächst empfehlen von Ambrosius Bohny, am Blumenmarkt.

14. Ein neuer kleinerer Mantel, der sich leicht anziehen lässt, und in jeder Hinsicht sehr bequem ist, zu haben in No. 120 am Blumenmarkt.

15. Es eben hat Unterzeichnete eine 16. Sehr benachrichtigen hienest C. C. Banknoten, das wir in merkwürdiger und höchst angenehmer Weise durch die Gabe eines feinen Geschmacks zur höchsten Beachtung hienächst empfehlen von Ambrosius Bohny, am Blumenmarkt.

17. Ein neuer kleinerer Mantel, der sich leicht anziehen lässt, und in jeder Hinsicht sehr bequem ist, zu haben in No. 120 am Blumenmarkt.

18. Interessante Insekten (Kannenecken, kleine Schmetterlinge) und Schmetterlinge aus allen Theilen der Welt, zu haben in No. 1120 Blumenmarkt.

19. Einige Wagen guter Bau, um billigen Preis; in No. 1138 Weisengasse zu melden.

20. Gutes ordentliches Baumöl zu 6 Btz. das lb, zum Essen, und auch in Fabriken zum Maschinenschmierer gebrauchbar; in No. 120 am Blumenmarkt.

21. Bei Unterzeichnetem steht ein schöner Ambo von dritthalb Centner, Lyoner Façon, zu verkaufen. Fr. Föhls, Schlossmeister.

22. Gut ordentliches Baumöl zu 6 Btz. das lb, zum Essen, und auch in Fabriken zum Maschinenschmierer gebrauchbar; in No. 120 am Blumenmarkt.

23. Gut ordentliches Baumöl zu 6 Btz. das lb, zum Essen, und auch in Fabriken zum Maschinenschmierer gebrauchbar; in No. 120 am Blumenmarkt.

text recognition

We have trained two different **HTR+** models for the gothic print before and after 1800 by using **Transkribus**. The Character Error Rate of both models is below 1%, the accuracy of the text recognition is very high. Given the not standardized writing, **text mining** has to deal with irregularities and **build vocabularies** that could be useful for other sources of the same time and area.

The layout of the Avisblatt changes over the years, switching between one, two and three columns, with multi-column or multi-page ads and special layouts for price lists, annual indices etc.

We are currently training a **layout model** with **dhSegment** that aims at a combination of automated layout recognition and post processing. The resulting coordinates for the single advertisements are fed into **Transkribus**, generating **full text page xml** on advert level.

layout recognition

### future research

Through the cascading classification of adverts, the whole body of the Avisblatt is being transformed into a source that becomes manageable for single research projects from various perspectives and for different questions, using different subsets. While Susanna Burghartz is interested in the comments of the editors, a family of the pious Herrenhuter community, Alexander Engel focuses on the economic realm by looking at prices, forms of allocations and lotteries. Anna Reimann is discovering the world of things, especially the second hand market, and Ina Serif is interested in ways of announcing, selling and projecting books.

Interested in real estate? Or poodles? Or prayer books? Contact us!

From a data point of view, the ad-based full text also enables comparisons with other intelligencers. Unsupervised machine learning will serve as a sensor for slipped patterns and as a corrective measure to question the designed annotation types and to evaluate categories.

**team**

- Susanna Burghartz, PI
- Alexander Engel, PostDoc
- Anna Reimann, PhD candidate
- Eric Decker, IT coordinator
- Ina Serif, PostDoc
- Lars Dickmann, student assistant
- Lars Kury, student assistant
- Matthias Bannert, data scientist

database

ID	issue	year	month	date	page	creator	ORCIDID	type	content	allocation	keywords	text	notes
112689	6	1842	1	6	250000-0001-8225-7851	Kauf Lebensmittel		Biete	Ort			8. Es wird hienest in Erinnerung gebracht, mit dem in No. 174 zum Brunnen am Fischmarkt immer schöne Forellen, Krebse und Aale zu haben sind, womit man sich bestens empfiehlt.	Abbildung
112690	6	1842	1	6	250000-0003-2419-4252	Kauf Lebensmittel		Biete	Ort; Preis			13. Aechter moussirender Muskateller Rheinwein, die große Flasche à 35 Batzen, wird hienest eines edeln, reinen Gewächses und Freunden eines feinen Geschmacks zur gefälligen Beobachtung hienest höflichst empfohlen von Ambrosius Bohny, am Blumenmarkt, auch zu haben in No. 69 St. Johannvorstadt.	typographische Hervorhebung
112691	6	1842	1	6	250000-0003-2419-4252	Kauf Landwirtschaft		Biete	Ort			19. Einige Wagen guter Bau, um billigen Preis; in No. 1138 Weisengasse zu melden.	
112692	6	1842	1	6	250000-0001-8225-7851	Kauf Werkzeug		Biete	Ort; Preis			21. Bei Unterzeichnetem steht ein schöner Ambo von dritthalb Centner, Lyoner Façon, zu verkaufen. Fr. Föhls, Schlossmeister.	
112693	6	1842	1	6	250000-0003-2419-4252	Kauf Lebensmittel		Biete	Ort; Preis			23. Gut ordentliches Baumöl zu 6 Btz. das lb, zum Essen, und auch in Fabriken zum Maschinenschmierer gebrauchbar; in No. 120 am Blumenmarkt.	

data export via API and UI yeah!

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