

University of Stuttgart

Department Digital Humanities¹ Stuttgart Research Center for Text Studies² Germany



Best practice for digitising small-scale Digital Humanities projects

<u>Peggy</u> <u>Bockwinkel</u>1, Dîlan Cakir²

Governmental digitising plans:



https://www.huffingtonpost.com/2013/12/11/norway-digitizing-all-books-national-library_n_4427164.html

Aim of the presentation

This presentation is intended to

- 1. draw attention to the fact that there is no infrastructure that provides humanities scholars with machine-readable texts.
- 2. point out that third-party funding projects in the DH often start with an idea, that is tested in teaching.
- remind, that DH-teaching can be seen as a playground, where ,things are tried out. The support of DH-related teaching also supports DH research.
- 4. suggest some parameters that are important for digitising to make it easier for non-digitising experts to get their machine-readable text.

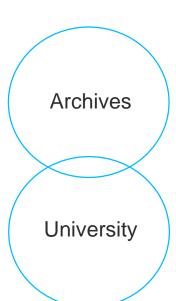
1. Digitising infrastructure in Germany

Infrastructure for:

Big-scale digitising

Digitising as a paid service

Third-party funding projects (digitising included)



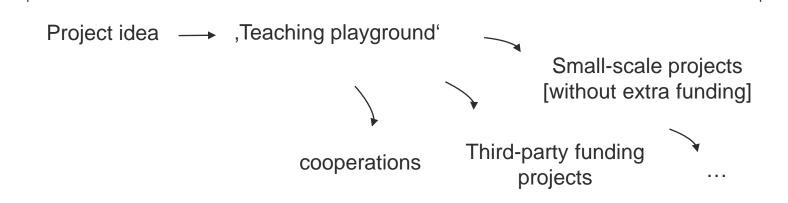
No Infrastructure for:

Digitising as a free service

Project ideas ' (with no digital corpus)

2. + 3. Importance of project ideas and teaching

Availability of machine-readable texts



If you boost project ideas with DH teaching, you boost DH research

Examples from the University of Stuttgart:

http://www.ts.uni-stuttgart.de/kaetehamburger/

http://www.germanliteratureglobal.com/index.php/Karten_und_Konjunkturgraphen_zu_%C3%9Cbersetzungen_

deutschsprachiger_Literatur

https://quadrama.github.io/index.en

4. Digitising (Scanning)

1st parameter: the book itself

Sample with good results (colour/400dpi):

Sample with unaccaptable results (settings: ?)

vnd vberall gankstill war / entschlieffe die Repses rin auch. Als aber das alte falsche Weib/deß Reps sers Mutter / gewar ward / daß die Renserin ents

→ Bad results due to

the bad quality of the book (stains, folds, etc.) the use of initials as part of the typography

4. Digitising (Scanning + OCR)

2nd parameter: settings (colour + dpi)

| colour | dpi | "sun picture" | millimetre paper | detail of gothic types | number of mistakes in one double page, gothic types | | |
|-----------------|-----|---------------|------------------|------------------------|---|--|--|
| colour | 300 | ** | | Vor | 7 | | |
| black/ white | 300 | *** | | Vor | 17 | | |
| grey scale | 300 | *** | | Vor | 9 | | |

→ Best setting: colour, 300dpi

4. Digitising (Scanning + OCR)

3rd parameter: types of errors

| | | e → c | ∪ → n | st →si | st → il | ss →st | st →ss | st →ff | b →d | m →n | → ! | s →j | s →f | b →h | † →f | i →I | c →: | e → o | e →h | L →T |
|-----------------|-----|-----------------|---------------------|-----------|-----------------------|-----------|-----------|-----------|---------|---------|------------|---------|---------|---------|---------|---------|---------|-----------------|---------|---------|
| colour | 300 | | | 1 | | | | | | | 1 | 1 | 1 | 2 | 1 | | | | | |
| black/ white | 300 | 1 | | 6 | | | | | | 3 | | | | | | 1 | 1 | 1 | 1 | 1 |
| grey scale | 300 | 1 | | 5 | 1 | 1 | | | 1 | | | | | | | | | | | |

- → Best setting: grey scale, 300dpi
- → if you train on "st": 5 errors less (per double page)

4. Digitising (OCR)

Postscript

For texts in Antiqua:

Also consider to OCR with Adobe professional

→ It might be faster with better results

Other OCR software, e.g.:

PoCoTo (Post Correction Tool):

https://github.com/cisocrgroup/PoCoTo/https://thorstenv.github.io/PoCoTo/

A list with more parameters on digitising:

Holley, R. (2009). How good can it get? Analysing and improving OCR accuracy in large scale historic newspaper digitisation programs. *D-Lib Magazine 15* (3/4).



Thank you! Questions? Comments?



Peggy Bockwinkel

github: https://github.com/Bockwinkel/OCR

e-mail peggy.bockwinkel@ilw.uni-stuttgart.de

phone +49 (0) 711 685-82279

fax +49 (0) 711 685-

University of Stuttgart
Department *Digital Humanities*Herdweg 51, D-70173 Stuttgart