

Digging in documents: using text mining to access the hidden knowledge in Dutch archaeological excavation reports

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Propositions

accompanying the dissertation

Digging in Documents

Using Text Mining to Access the Hidden Knowledge in Dutch Archaeological Excavation Reports

by

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- 1. Using the pairwise averaged F1 score for the inter annotator agreement of named entity annotation is more useful than the traditionally used Cohens Kappa.
- While BERT models trained on out-domain data can lead to decent performance, further pre-training BERT models with more domain- and language-specific data leads to higher performance in the Dutch archaeology domain.
- Agile development, user centred design, and thorough system evaluation leads to better software, and should be used more in archaeology and the humanities.
- 4. Without text mining and other data science techniques, it will be impossible to tame the large influx of archaeological data, leading to incomplete and possibly biased research.
- 5. Uncritically accepting a machine learning outcome is unwise.
- Open science with free open source software published in open access journals leads to more transparent, more accessible, and overall better research.
- 7. GPU usage for Deep Learning in this research produced CO2 output equivalent to a flight from Amsterdam to Prague. Due to this, less computationally expensive methods are preferable, except in cases where deep learning substantially outperforms.
- 8. For interdisciplinary research between archaeology and computer science, a digital archaeologist is needed to facilitate information flow between the two fields.
- 9. Total liberation of all human and non-human animals is required for a just society.
- 10. When your only tool is a trebuchet, every problem looks like a siege.