A Laypeople Study on Terminology Identification across Domains and Task Definitions

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Motivation

- Neither term annotation nor automatic term extraction follows consistent rules
  → Estopà (2001): terminologists, domain experts, translators and documentalists are given the same task, and they select different kinds of terms
- One step back: How do laymen agree in a term annotation task?

Annotation Task

- Lay annotators
  - no terminology theory background
  - not told that they are doing term annotation
  - no restrictions on annotation
  - Highlight domain-specific phrases (DS)
  - Create an index (IND)
  - Define unknown words for creating a translation lexicon (TR)
  - Create a glossary (GL)

Example for annotation in WebAnno:

Domains

- DIY
- Cooking
- Chess
- Hunting

Annotation Procedure

- Overall: 4 tasks * 7 annotators = 28 ("concordance")
- Per task: max of 7 annotations ("agreement")

Agreement across Tasks & Domains

- As expected: in absolute numbers, there are more annotations for broader term annotation tasks than for narrower ones
- Not as expected: agreement for broader term annotation tasks is higher than for narrower ones
- Across all tasks: agreement is similar for the same terms → laymen have an intuitive, common understanding about a term’s domain specificity

Word Classes

- What constitutes a term? A noun? A verb?
  - Terms are typically regarded as noun phrases
  - Laymen accept verbs as terms, too, but with a low agreement
  - Verbs are often used in MWEs: *Eigelb schaumig schlagen* (‘beat the egg yolk until frothy’)

Complex Terms and Subterms

- High concordance for compounds, low concordance for MWTs
  - But: for MWTs, concordance for subterms is higher with decreasing concordance for MWT → if unsure for the MWT, annotators rely on components
- Compounds: other way round

Ambiguity

- General and domain-specific senses: Wiktionary, Duden and Wikipedia
- Results: ambiguous terms were often not selected (although often being highly specific)
- Either overseen or not considered relevant due to general language shape

Automatic Term Extraction

- Term ranking by annotator concordance compared to ranking by hybrid term-candidate extractor (Rösiger et al., 2016) → term extractors rank compounds and MWTs higher than the laypeople do

Conclusion

- Laypeople generally share a common notion of termhood
  - i. High inter-annotator variance for more specific tasks
  - ii. Little awareness of the degree of termhood of ambiguous terms and
  - iii. Low agreement on MWTs with high reliance on subterms
- Show that laypeople’s judgments deteriorate for specific and potentially unknown terms

References

- https://www.robost.com/corporate/terminology/Structural_Eigelb_schaumig_schlagen.png