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brat Rapid Annotation Tool. Web-based annotation and visualization tool.

Natural Language Processing Laboratory (NLPLab), non-affiliated virtual lab, 2010. Accessed 25 October 2018. brat.nlplab.org/index.html.

Introduction

brat combines a web-based text annotation tool with a visualization environment that allows users to add customizable, structured markup to text documents via mouse clicks and menu selections. Instead of showing the underlying code structure, this markup is then graphically represented as highlights, floating tags, and visual links between parts of the original text. In other words, *brat* offers a way of encoding a document via a WYSIWYG (what you see is what you get) graphical user interface rather than within a traditional XML (eXtensible Markup Language) editor, expanding the uses and visualization potential of tagging beyond simply preparing a document for text analysis or machine readability. Annotation categories, types, and constraints can be fully customized to incorporate various markup schemas and standards or to create a unique schema. This flexibility means that the tool can be adapted for use in any project that requires an existing text document to be annotated. *brat* supports the following annotation types:

- **text span** (categorical annotations for entities)
- **relation** (connecting entities via simple edges)
- **n-ary** (linking annotations to specific roles)
- **normalization** (linking internal annotation to external weblinks)
- **freeform notes** (while designed primarily for structured, computer-readable markup, *brat* also allows users to annotate documents with non-standard comments)

Project scope and intended audience

brat was initially created as a tool for use with science-related data, biomedical documentation, and biocuration, but its customization options enable applications well beyond this original intention. This review focuses on how