An Overview of the Capabilities and Features of the Interface for the V3NLP System

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INTRODUCTION

The V3NLP Interface is designed for use by medical domain experts that are not necessarily well versed in NLP or advanced annotation tasks. The Interface for the V3NLP system simplifies and enhances the process of applying NLP to clinical medical text for research. It was designed to work within VINCI on VA data, but it can also be used outside the VA.

Common Problems and Challenges with NLP

Some of the common problems a medical researcher might experience when seeking to use NLP to extract information from clinical records could include the following:

• Knowing what annotators should be included in an NLP pipeline.
• Knowing what annotators are available to be used.
• Knowing the dependencies for each of the annotators.
• Having to pick a framework, and be limited to the annotators that are in it.
• Having to write code in order to create a custom pipeline.
• Having a good way to see the annotations for a document, and edit them.

Standard, Pre-Configured Pipelines

• The V3NLP Interface includes a set of pre-configured pipelines (similar to cTAKES[1]) that can be used as-is, or as templates for creating a pipeline.
• The Interface has the ability to save a pipeline, and then re-use or share that pipeline with others.

Selecting Annotators Visually

• Annotators are organized in categories (as buttons), and then selected from a drop-down list.
• Each includes a description.

Graphical Editor for Viewing and Editing Annotations

• An editor in V3NLP Interface allows visually adding, modifying and deleting annotations.

Annotator Dependency Checking

• As annotators are added, dependencies are automatically checked, and the user is alerted if a dependency is missing.

Common Model Mapping

• V3NLP components flow neatly into annotation tools such as Knowtator[4] and eHOST[5].

Drag and Drop Creation of Pipelines

• Pipelines can be created by arranging different annotators using a visual interface similar to Yahoo Pipes[6].

CONCLUSION

The V3NLP Interface allows someone to quickly and visually create a NLP pipeline. It addresses many of the common problems that are seen by people who are new to NLP methods, through an intuitive interface that follows a natural workflow.

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REFERENCES

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