

## **Project Registration Form**

### **Language Technology and Web Applications**

**Project title:** Augmenting Bullinger Digital with additional tools for Latin and Early German

**Participants:**

1. Anna Bondar
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**Project Description:**

Bullinger Digital is a project, developed by Prof. Martin Volk and his group, that aims to digitize and provide online access to all available knowledge about Bullinger correspondence. The project involved digitally processing existing information and employing an automatic handwriting recognition system, resulting in transcriptions of 11,400 letters, including 3,000 previously untranscribed copies. Additionally, the researchers developed a machine translation system from Latin to German and implemented an automatic language change recognition (code-switching) model. More information about the system can be found here: <https://www.bullinger-digital.ch/about/project/projektziele>.

The letters, although transcribed, are in Early German and in Latin languages<sup>1</sup>, which might not be the easiest to work with, thus our project aims to develop some tools on the website, which would facilitate understanding of the letters content and might be a precious material source for the researchers working with historical texts. Particularly we would like to add morphological information and translations for the Latin words and add translations for the words in Early German where it is needed.

**Purpose:** For the Latin language we will enable users to click on any word in the text to obtain detailed information, including its conjugation, base form, and translations to both English and German languages. This task will be done by implementing a user-friendly interface for easy interaction. For now, our idea is to ask users to click twice on the word to obtain the details. For the Early German, the creators of the search system manually implemented a range of footnotes, presenting the translation or explanation of some Early German words in Modern German. However, these footnotes appear only in some of the letters and are missing in the others. Our goal is to make them consistent across the texts, presenting all the translations/explanations for the words where needed.

**End users:** Our project will provide students, scholars, and language enthusiasts with a powerful tool for exploring historical texts in-depth. By integrating advanced linguistic features, we aim to simplify the process of understanding and analyzing complex texts for anyone studying Latin, Early German, and related languages.

**Application usage:** The users will open the letters at the Bullinger Digital platform. For the Latin language: the users will be able to click on a word in the letter and see all the available

information regarding this word. For the Early German: the users will be able to click on the footnote of some words to see all its meanings.

**Technologies to be used:**

We will work with the Bullinger Digital Platform, SQL databases, XML files.

**Potential Challenges and Expected Issues in Development:**

One of the potential challenges might be to implement the changes to the Bullinger Platform, because we will need to get acquainted with the already existing structure of the website.