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Translation Studies Assistant for Master Students with Different Abilities

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ABSTRACT

Learners with special needs are in the focus of modern digital pedagogy. They are part of a wide field of inclusive education that covers a whole range of physical, cognitive, sensory, behavioral, and emotional disorders. Such students enter higher educational institutions to study foreign languages and theoretical disciplines in the Applied Linguistics programme. To date, in Russia there are few educational platforms for the students with special needs. The methodology for teaching such students to work with children in schools or with the computer software for translation is in the process of its development. Our project aims to identify the existing problems in the system of higher inclusive education in Russia and suggest the ways to address these problems. Our special attention is focused on human-computer assistive technologies enabling to teach foreign languages, linguistic disciplines, and translation. The poster reveals the main principles and methodology of working with the source and target texts in Translation Studies class using an interactive application that allows students with learning disabilities to take their first steps in translation. The application is planned to be implemented and tested at University of Tyumen where the master students study the methodology of teaching foreign languages and explore the theory and practice of translation.

1. INTRODUCTION

In the modern educational process, a number of students with diverse learning disabilities is steadily growing. To fully integrate them into the educational context, it is necessary to create conditions for the successful implementation of their educational route. This can be accomplished using assistive technologies (AT) and computer-aided tools (CAT) [1, 2, 3, 4] that support the students majoring in Applied Linguistics and Translation Studies. CAT tools include e-dictionaries, concordances, databases, parallel corpora, and translation memory tools which help translators to handle the source language (SL) and target language (TL) texts. They improve the translator's work and make it easy to work with the texts and reference literature. However, there are few applications for the students with learning disabilities aimed at working with the texts [5, 6]. The proposed translator assistant is an interactive technology, a fully functional tool for the English-Russian language pair intended to facilitate the translation workflow for such students. Creating and implementing the tool is a part of a pilot project at University of Tyumen «Assistive Technologies of Digital Tutors for Students with Learning Disabilities» aimed at master students. The assistant is addressed to creatively inclined students interested in literature, English as a foreign language, creative writing and translation. The main goal of the training assistant is not so much to teach professional translation skills to the students with learning disabilities but to provide them with an opportunity to express themselves creatively through English in the comforting atmosphere of their home, receive positive feedback from their tutor personified in the form of a digital chat-bot assistant with their teacher's facial avatar, pump up their self-esteem, enhance self-confidence, avoid negative emotions due to bullying, intentional or unintentional insulting behavior in class. The chat-bot will not only test the students and provide them with the knowledge ontologies, but also offer them individual modes of work - as a teacher, a coach in foreign languages, and a translator. The poster aims at highlighting the translator mode.

2. METHODOLOGY AND DATA

Digital tutor is a program for interaction between a virtual teacher and a real student. The architecture of the prototype includes two groups of technologies: educational technologies (methods and techniques) and prototype technologies (algorithms and parameters). The prototype contains an interface with the dialog control modules. The operation of the product is carried out in a dialogue mode with the user (messaging). The dialog management module «prescribes» a scenario that defines the beginning and end of the dialog; marks the types of speech moves; sets the inclusive modes that determine the content of the dialog. The prototype will use free tools such as the DeepPavlov library[1] (a set of programs for creating dialog systems), a corpus of educational texts and encyclopedias, and the DBpedia ontology.[2]

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[1] https://deeppavlov.ai/agent
[2] https://wiki.dbpedia.org/services-resources/ontology

The translator assistant takes a SL text as an input and produces an output as a marked-up interactive TL text with the highlighted noun and verb phrases and as a list of SL-TL units found in the input texts. The tool can be used as an e-dictionary. The tool interface will be easy to use. The process of translation will not be necessarily challenging. It is designed to be entertaining and interactive. Users will get an opportunity to acquire basic translation skills through the following stages of translation: linguistic, communicative, functional and ethical/aesthetic [see 7]. For the input, the English texts are submitted to the assistant. To date, the dataset includes the Aesop's tales[3]. The choice of the texts explains the concept of creating a comforting, entertaining and thought-provoking environment for the students. Animal characters are easy to animate thus making the learning process more engaging and motivating. They teach empathy and universal life wisdoms. In the future, the project will be supplemented with other texts and expanded to include texts of different registers and topics.

3. THE TRANSLATOR ASSISTANT: CHALLENGES AND PERSPECTIVES

To create a prototype of a digital assistant, we identified the main criteria for building a prototype, and at present we are at the stage of reviewing the literature on assistive technologies and developing the interface and content of the programme. How will the programme be executed? The human-computer interaction will be carried out in the following mode: the assistant will suggest the students guidance with their translation skills. It will find the encouraging statements to assist them in the translation workflow and will choose the appropriate texts. During the process of interaction only the positive emotive vocabulary will be used. The students press the button and listen to the story or they can read along if they want to. Then they will look at the words and phrases they might not know. The students click on any word they want to check and see what it means. Then the assistant suggests checking grammar and working with different translation exercises (finding names, noun and verb phrases; translating the sentences into Russian, etc.). The assistant will offer different translation options. The students will practice and acquire new English language knowledge (grammar, vocabulary, style), culture specific linguistic and extra-linguistic information (facts, terms, names of cultural objects, notions, etc.), and polish their style of writing in Russian. Eventually, beside language skills, through dialogs with the assistant, students will practice attention to detail, being focused on the task and curious, perform fully accurate and well-worded translations, self-checking and review steps. The proposed tool will make the translation process more accessible for students with cognitive, emotional, sensory or developmental disabilities.

4. ACKNOWLEDGEMENTS

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