Literacy in Digital Environments and Resources (LT-LiDER)

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Abstract

LT-LiDER is an Erasmus+ cooperation project with two main aims. The first is to map the landscape of technological capabilities required to work as a language and/or translation expert in the digitalised and datafied language industry. The second is to generate training outputs that will help language and translation trainers improve their skills and adopt appropriate pedagogical approaches and strategies for integrating data-driven technology into their language or translation classrooms, with a focus on digital and AI literacy.

1 Introduction

Although translation trainers and professionals are no strangers to integrating tools into their workflows, increasingly complex Natural Language Processing (NLP) technologies based on contemporary AI research are now either incorporated into existing tools or may be used alongside them. These technologies are often based on previous translation or workflow management data and are predictive (and generative), with capabilities of modifying digital language processes and automating portions of translators' tasks.

Where once these technologies were easy to understand and conceptualise, the growing degree of complexity of these technologies and the continuous development of new models in quick succession can make it very difficult for language experts to follow how they can be applied to their work successfully. This increased opacity "is a particular cause for concern for humans required to work with contemporary MT systems because it can limit their ability to intervene in translation workflows, thus undermining agendas of translator empowerment" (Kenny 2019,

438). Furthermore, many commercial systems that re-use copyrighted data market themselves as solutions to further automate translation workflows to increase productivity and save time and money without necessarily providing supporting evidence.

The Literacy in Digital Environments and Resources (LT-LiDER) cooperation partnership consortium, consisting of researchers and lecturers with substantial experience in NLP and translation technologies, intends to improve this information deficit with two main aims. The first is to map the landscape of technological capabilities required to work as a language and/or translation expert in the digitalised and datafied translation industry. The second is to generate training outputs that will help language and translation trainers improve their skills and adopt appropriate pedagogical approaches and strategies for integrating technology into their language or translation classrooms, with a focus on digital and AI literacy. The strategies and content will introduce the many technical and ethical questions about use and reuse of data, appropriate and risky uses of technology, and positive and negative impacts on the many stakeholders in a translation process. The project thus introduces themes from applied ethics for trainers and translators to make ethically-grounded decisions based on previous learning, and to reflect on the effects of these decisions.

2 Previous work

The LT-LiDER project follows on from previous initiatives led by members of the consortium, such as MultiTraiNMT (Kenny 2022), which created, tested, and disseminated open access materials to improve neural machine translation (MT) teaching and learning among students, teachers, and professional translators across Europe, FOIL, offering online translation industry-focused training,[1] the DigiLing project offering e-learning resources for understanding and exploiting language content in a

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[1] See https://foil.cti.gr/ and https://www.digiling.eu/

digital era, and the DataLit[MT] project (Hackenbuchner & Krüger 2023), which developed didactic materials for teaching data and MT literacy. The subsequent rapid emergence of generative tools based on large language models (LLMs) highlights the urgent need for materials to help students and trainers understand the role of data and machine learning, as intended within this project that builds on members' knowledge and experience.

3   Project aims and outputs

This project has three main objectives that will result in several concrete outputs:

- To raise awareness among language and translation experts (professionals and trainers) about the importance of understanding current technologies and how to apply them.

- To create training resources to assist language and translation professionals, trainers, and trainees in applying current technologies.

- To disseminate results from the early stages of the project to maximise its visibility, capture professional trainers' and professionals' attention, and incorporate their feedback in the process.

The first objective is to map and raise awareness of the technological skills gap. To achieve this, we will conduct interviews with relevant stakeholders to identify their current use of technologies, specific needs, and requirements for professionals. These interviews will be recorded and published as videos on the project website. They will also be used to map the technologies used and needed in language learning and translation contexts, and to produce an inventory of scenarios that can be applied in training settings, ranging from formal education to continuous professional development. Relatedly, we intend to create a didactic tool for acquiring MT literacy based on the open-source MutNMT tool, which was developed as part of the MultiTraiNMT project.[2]

The second objective is to provide training and materials to enhance digital and AI literacy skills among language and translation professionals and trainers. For this, we will produce a handbook taking a practical approach to adopting and applying the newest technologies in the language industry. We will also organise a training event involving authors and participants from the target groups of the book to ensure the internal coherence of the handbook and the appropriateness of the content and approach for target users. As a complement to the book, we will prepare training activities in video or written format and organise a learning event where these scenarios will be

put to the test, asking trainers and trainees to solve similar problems. This feedback will provide the means to evaluate the effectiveness of the material and to adjust to improve their educational value.

Finally, we will design a questionnaire drawing from surveys, interviews, and, most importantly, the book, to enable self-assessment of related competencies and identify personal needs regarding digital and AI literacy to further develop the training scenarios and learning activities.

4   Future-proofing translation training

This project aims to create materials and resources to facilitate trainers, students, and professionals in a dynamic time of technological advances. The intention is to be flexible enough to incorporate changes as they occur and to produce graduates with the literacies to thrive in multilingual workplaces without losing the core linguistic skills that professionals are required to have. By tackling the need for resources to enhance digital literacy in translation and language-related professions, we address two UN Sustainable Development Goals (SDGs). We address SDG4, Quality Education, by improving how we teach digital literacy to ensure that language and translation students will have the skills and knowledge necessary to succeed in a rapidly evolving digital landscape. Digital literacy is increasingly important for job readiness and employability. By improving digital literacy (addressing SDG8 on Decent Work and Economic Growth) individuals can enhance their skills and competitiveness in the job market, leading to improved economic opportunities and growth.

Acknowledgment

References

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[2] http://multitrainmt.eu