



LREC 2026

**The Second International Workshop on Eye-Tracking
Resources and Evaluation for Human-Aligned NLP
(Gaze4NLP 2026)**

Workshop Proceedings

Editors

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Preface

It is our great pleasure to present the proceedings of Gaze4NLP: The International Workshop on Eye-Tracking Resources and Evaluation for Human-Aligned NLP, held on May 12, 2026, in Palma de Mallorca, Spain, as part of the 2026 International Conference on Language Resources and Evaluation (LREC2026).

The first Gaze4NLP workshop (International Workshop on Gaze Data and Natural Language Processing) was held on September 12, 2025 in Varna, as part of RANLP (Recent Advances in Natural Language Processing). This second edition again brought together researchers from diverse backgrounds to discuss advances in the field, eye-tracking resources and evaluation methods for human-aligned NLP.

Each paper in the proceedings was reviewed by at least two members of our program committee. The contributions cover a wide range of topics, including:

- using gaze for machine translation evaluation;
- part-of-speech data to study individual differences in reading Portuguese;
- analysing the relationship between visual perception and language production;
- analysing a low-resource language eye-movement corpus in Arabic;
- tracking facial expressions and eye-contact in VR environments;
- conducting automatic text simplification using eye-tracking measures in English;
- evaluating the impact of text simplification in French;
- comparing mouse and eye tracking in reading Romanian texts; and
- estimating on-screen gaze location using mouse data.

The organizers also present a survey of research on incorporating gaze data in NLP models and applications.

We would like to express our gratitude to the authors for their high-quality submissions and to the program committee members for their contributions to the reviewing process.

Cengiz Acartürk, Burcu Can, Jamal Nasir and Çağrı Çöltekin

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Workshop Program

Tuesday, May 12

09:00 Session 1: Eye-Tracking Data in Reading and Language Processing

Eye tracking for Machine Translation Quality Evaluation

Natalia Glazyrina and Ondřej Bojar

Cross-Linguistic Analysis of Eye Movement Patterns: Insights from the First Arabic Eye-Tracking Corpus for NLP

Ibtehal Baazeem, Hend Al-Khalifa and Abdulmalik AlSalman

Exploring Cognitively Informed Sentence Simplification with Gaze-Guided Text Generation

Andreas Säuberli, Diego Frassinelli and Barbara Plank

Impact of Text Simplification on Eye-Tracking-Based Reading Profiles Across Domains

Oksana Ivchenko and Natalia Grabar

11:00 Session 2: Eye-Tracking Data in Multimodal Context

Parts of Speech Shape Reading-Time Variability in Brazilian Portuguese

Diego Alves

CoordiMap: Conceptual Proposition of a new Framework for the Annotation of Verbal Elicitation Paths on Visual Experiment Stimuli and Introduction of the Associated Annotation Tool

Carmen Schacht

A Comparative Study Between Mouse and Eye Tracking Signals for Long Romanian Texts

Bogdan Alexandru Gheorghe and Sergiu Nisioi

Eye-Contact and Facial Expression Tracking for Assertiveness Training in VR-Based Anti-Bullying Education

Lubomir Ivanov, Anabel Nolasco and Mary Vrahimis

Predicting Gaze Location without Camera or Eye-Tracker

Saman Rezapoor, Sajad Shirali-Shahreza and Gerald Penn

A Survey of Incorporating Gaze Data into Natural Language Processing Models and Applications

Cengiz Acarturk, Burcu Can, Melike Caglayan, Jamal Abdul Nasir and Cagri Coltekin

