ALTA 2025

# Proceedings of the 23rd Annual Workshop of the Australasian Language Technology Association

November 26-28, 2025
**The University of Sydney**
**Sydney, Australia**

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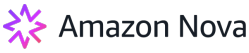


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# Introduction

Welcome to the **23rd Annual Workshop of the Australasian Language Technology Association (ALTA 2025)**. Hosted on the campus of the University of Sydney, ALTA 2025 will provide a platform for the exchange of ideas, exploration of innovations, and discussion of the latest advancements in language technology. The workshop acknowledges the significance of its location on the traditional lands of the Gadigal people of the Eora nation, underscoring a commitment to inclusivity and respect. ALTA 2025 convenes leading researchers, industry experts, and practitioners in the fields of natural language processing (NLP) and computational linguistics.

The program at ALTA this year reflects a wide variety of topics of relevance to contemporary NLP research. This year, ALTA had three options for submission: direct archival papers (long and short), direct non-archival papers (various lengths), and a commitment site for papers reviewed through ACL Rolling Review (ARR). We received 24 archival submissions, accepting 13 after double-anonymous reviews by 3 reviewers per paper. This gives an overall acceptance rate of 54%, which is comparable to previous iterations of ALTA. The papers will be presented in four thematic sessions: natural language understanding, natural language generation, robustness and security of LLMs, and multimodality.

This year, we introduced an alternative to present papers published at international conferences such as ACL, EMNLP, with the view to enable ALTA to be a local forum to disseminate internationally acknowledged research and facilitate discussions among researchers in the region. This was in addition to non-archival papers which may be early work or research proposals. We received 14 submissions in the non-archival track and accepted 13 of them. This includes 8 papers that have been published elsewhere. Every non-archival submission was reviewed by one reviewer. The non-archival papers will be presented as lightning talks across three thematic sessions.

The workshop includes a tutorial on 'Alignment of Large Language Models with Human Preferences and Values' by presenters from Macquarie University and a shared task on linking adverse drug events to medical ontologies. This year's panel discussion is on 'Teaching/Using NLP for teaching' and will be moderated by Aditya Joshi. We thank our panelists for offering their insights on the topic. We thank the tutorial presenters, shared task chair and participants. The shared task participants will also present short talks at the workshop.

This year's submissions showcase advancements across a wide array of topics. The thematic sessions highlight the range of topics covered in the workshop. Scientific literature, code and social media data are recurring text forms. The papers on language and multimodality highlight the narrowing gap between different modalities as foundation models progress towards unified modeling.

We would like to extend our heartfelt gratitude to our keynote speakers: Prof. Alistair Knott - (Victoria University of Wellington), Prof. Mark Johnson (Macquarie University and Oracle). A special thank you to Prof. Massimo Piccardi (University of Technology Sydney) who was the judge for the best paper awards.

Thank you to the members of the organising committee and volunteers for their hard work in preparing and running ALTA. We extend our heartfelt appreciation to the reviewers for their effort in writing detailed and constructive reviews.

Lastly, ALTA 2025 gratefully acknowledges the support of our sponsors: Google (Gold tier), Amazon Nova and Mongo DB (Silver tier), and GE Aerospace and University of Melbourne (Bronze tier). We are also proud to have the University of Sydney as our host.

The success of this workshop would not be possible without your invaluable contributions. Welcome to USyd and Sydney! We hope that you enjoy ALTA 2025, and look forward to a rewarding and inspiring time together.

Jonathan K. Kummerfeld
*ALTA 2025 General Chair*

Aditya Joshi
Mark Dras
*ALTA 2025 Program Chairs*

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# Keynote Talk: How can computational linguists contribute to the social good?

**Prof. Alistair Knott**
Victoria University of Wellington
**2025-11-27 10:00:00** – Room: **Lecture Theatre 302, PNR building**

**Abstract:** Like most AI language researchers these days, I divide my time between being amazed by the quality of our new large language models, and worrying about how these models will impact society. In an attempt to reconcile these two instincts, my work for the last few years has focussed on contributing to conversations about LLM regulation, where people who understand the technology at issue have many important roles to play.

In this talk I'll discuss a few ongoing conversations I'm involved in - and hopefully connect with people at ALTA who are having similar conversations. One discussion is about transparency for AI-generated content. My group at the Global Partnership on AI helped to define a clause in the EU's AI Act, requiring providers of AI content generators to ensure their content is 'detectable'. A key debate at present is about enforcement: what can we require of providers, given the state-of-the-art in AI content detection schemes? Another discussion is about transparency of social media platforms. The EU's Digital Services Act contains provisions allowing vetted external researchers to access the largest platforms, to study 'societal risks' (and their mitigation). Now these provisions are in place, what are the most important questions that should be asked, and what methods are most suitable? (I co-founded a grouping of social data science researchers, to help answer that question.) A final discussion is about accountability for AI training sets. I am particularly interested in the labelled datasets created by Silicon Valley companies, to align their LLMs, and to train their harmful content classifiers. A great deal of power resides with the annotators who provide labels for these datasets. But we often know little about how annotators are chosen, and about the guidelines they follow. My group at GPAI has proposed that labels could be provided 'democratically', by consulting a representative sample of citizens or users, through a process akin to opinion polling. I'll finish by discussing how this idea could feature in the governance of 'sovereign LLMs' developed in Australia and New Zealand.

**Bio:** Ali Knott is Professor of AI at Victoria University of Wellington. He studied Philosophy and Psychology at Oxford, and did his postgrad and postdoc work at in Edinburgh, in computational linguistics. He moved to New Zealand in 1998, and participated in ALTA during its heady early years.

Ali spent many years researching how language is implemented in the human brain. His main interest was in how language interfaces to the sensory and motor systems, to enable us to talk about what we see and do. He presented his theory about this interface in a book published by MIT Press. He extended the theory in the New Zealand AI company Soul Machines. One application was an embodied model of an 18-month-old toddler, 'BabyX'.

For the last 10 years, Ali's main focus has been on the social impacts and governance of AI. He is involved in many international AI policy discussions, mainly through his work as co-lead of a project on Social Media Governance, coordinated by the Global Partnership on AI (now part of the OECD). This work has had several impacts on EU tech legislation, including on provisions about AI content detection (in the AI Act), and provisions to allow vetted researchers access to the largest online platforms (in the Digital Services Act). Ali also participated in the Christchurch Call to eliminate Terrorist and Violent Extremist Content Online, and contributes to the Forum for Information and Democracy. He has advised the New Zealand government on many questions of AI policy, and often looks across the ditch to see how policy is progressing in Australia.

# Keynote Talk: How LLMs Change NLP

**Prof. Mark Johnson**
Macquarie University and Oracle
**2025-11-28 14:00:00** – Room: **Lecture Theatre 302, PNR building**

**Abstract:** LLMs have made large-scale industrial application of NLP easier than ever before. This talk surveys the strengths and weaknesses of LLMs as qualitative rather than quantitative models, and focuses on the critical role of training data and post-training. Rather than focusing on superficial linguistic form, NLP development now involves understanding information sources and crafting the information flow between agents. Evaluation and testing are emerging as key challenges for LLM-powered applications.

**Bio:** Mark Johnson is a Professor of Language Science (CORE) in the School of Computing at Macquarie University. He is also the Chief AI Scientist, Oracle Digital Assistant at Oracle Corporation, where he develops chatbots and digital assistants. The Oracle Digital Assistant division develops novel deep learning models to power the next generation of Conversational AI using semantic parsing.

Mark Johnson has worked on a wide range of topics in computational linguistics, but his main area of research is natural language understanding, especially syntactic parsing and semantic analysis, and their applications to text and speech processing.

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# Program

**Wednesday, November 26, 2025**

14:00 - 17:00 *Tutorial*

17:00 - 18:30 *Meet-n-Greet*

**Thursday, November 27, 2025**

09:10 - 09:20 *Opening*

09:20 - 09:30 *Programme Committee Summary*

09:30 - 10:00 *Lightning Talks, session 1: Benchmarks & Evaluation*

10:00 - 11:00 *ALTA Keynote 1: "How can computational linguists contribute to the social good?" (Professor Alistair Knott).*

11:00 - 11:30 *Morning Tea*

11:30 - 12:30 *Oral presentations, session 2: Robustness and Safety of Language Models*

12:30 - 14:00 *Lunch*

14:00 - 15:00 *Panel Discussion [Panellists: Jey Han Lau, Massimo Piccardi, Thomas Elton]*

15:00 - 15:30 *Afternoon Tea*

15:30 - 16:45 *Oral presentations, session 3: Multimodality and Language*

16:45 - 17:15 *Lightning Talks, session 4: Hallucination & Vulnerabilities*

17:30 - 21:00 *Social event at Friend in Hand Hotel*

**Friday, November 28, 2025**

09:00 - 09:30 *Lightning Talks, session 5: Model Architecture & Learning*

09:30 - 10:30 *Oral presentations, session 6: Language Generation*

10:30 - 11:00 *Morning Tea*

11:00 - 11:30 *Oral presentations, session 7: Language Understanding*

11:30 - 12:30 *Oral presentations, session 8: Shared Task*

12:30 - 14:00 *Lunch*

14:00 - 15:00 *ALTA Keynote 2: "How LLMs Change NLP" (Professor Mark Johnson).*

15:00 - 15:30 *Afternoon Tea*

15:30 - 16:00 *ALTA AGM*

16:00 - 17:00 *Best Paper Award / Shared Task Award / Closing*