



Proceedings of the 25th Annual Conference of the European Association for Machine Translation

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Edited by:

Carolina Scarton, Charlotte Prescott, Chris Bayliss, Chris Oakley, Joanna Wright, Stuart Wrigley, Xingyi Song, Edward Gow-Smith, Rachel Bawden, Víctor M Sánchez-Cartagena, Patrick Cadwell, Ekaterina Lapshinova-Koltunski, Vera Cabarrão, Konstantinos Chatzitheodorou, Mary Nurminen, Diptesh Kanojia, Helena Moniz

Organised by





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Foreword from the General Chair

As president of the European Association for Machine Translation (EAMT) and General Chair of the 25th Annual Conference of the EAMT, it is with great pleasure that I write these opening words to the Proceedings of EAMT 2024, a special year since we are celebrating our 25th anniversary!

According to tradition, my first note of deep appreciation and gratitude goes to Celia Rico, Luc Meertens, Lucia Specia, and Maja Popovič, Executive Board Members, who have moved to new adventures in their lives, after outstanding, and dedicated service to the EAMT community.

We have several milestones to celebrate this year, built upon the hard work of our Executive Committee (EC) and our community: upgraded grants for low-income and war zones and for Translation Studies, a record submission rate for research projects, continuous excellent submissions for the best thesis award, and one of the highest number of papers ever submitted to our conference (80 papers accepted)! I could not be prouder of our EC and the dynamics of our community.

The EAMT Executive Committee (EC) has been very busy. Luc Meertens (treasurer), Carolina Scarton (secretary) and Sara Szoc (preparing to become our secretary and supporting everything we do) have been tirelessly supporting all initiatives. André Martins and Celia Rico, our co-chairs for low-income areas, war zones and Translation Studies grants, selected 11 grantees, 6 applicants from Translation Studies and 5 from war zones (3 hybrid light and 8 in-person). Maja Popovič and Sara Szoc, our co-chairs for the Research Projects, selected 4 projects (equally distributed by students and general research projects calls) with a diverse set of topics. To all our co-chairs, my gratitude! The selection work is never an easy task and this year was particularly hard.

The same applied to the best thesis award – Barry Haddow, chair of the Best Thesis Award, had a very difficult time selecting a candidate, since the submissions were of very high quality. Our congratulations to Marco Gaido's thesis "Direct Speech Translation Toward High-Quality, Inclusive, and Augmented Systems" (FBK, Italy), supervised by Marco Turchi and Matteo Negri. Our congratulations extended to the two highly commended theses of Jannis Vamvas: "Model-based Evaluation of Multilinguality" (University of Zurich, Switzerland), supervised by Rico Sennrich and Lena A. Jäger; and Javier Iranzo-Sánchez: "Streaming Neural Speech Translation" (UPV, Spain), supervised by Jorge Civera and Alfons Juan.

EAMT, as full sponsor of the MT Marathon, would also like to highlight the outstanding work that the MT Marathon organisers conducted, enriching the vitality of our community with their projects and keynotes. A special thank you to the organising committee Lisa Yankovskaya, Agnes Luhtaru, Lisa Korotkova, Mark Fišelj, Ondrej Bojar, and Barry Haddow for all the efforts on yet another successful MT Marathon event. Thank you, University of Tartu, for hosting the event.

Sheffield, United Kingdom! EAMT 2024 celebrates our 25th anniversary! Our conference will have a three-day, four-track programme put together by our chairs: Rachel Bawden and Víctor Sánchez-Cartagena (research: technical track co-chairs); Ekaterina Lapshinova-Koltunski and Patrick Cadwell (research: translators & users track co-chairs); Chatzitheodorou Konstantinos and Vera Cabarrão (implementations & case studies track co-chairs); and Mikel Forcada and Helena Moniz (products & projects track chairs). And backing up all the scientific components of our conference and filters of quality for the final selection: our reviewers. Thank you for your work and the alignment between all the chairs!

Continuing the successful event from Tampere, this year EAMT 2024 will also have an extra day for workshops and tutorials, organised by our co-chairs Diptesh Kanojia and Mary Nurminen. Once more, the submissions for workshops and tutorials largely exceeded our expectations for our second edition!

The programme will continue the tradition of including two keynote speakers, Alexandra Birch (Reader in Natural Language Processing in the Institute for Language, Cognition and Computation, School of Informatics, University of Edinburgh) and Valter Mavrič (Director-General of the Translation Service – DG TRAD – at the European Parliament). Our outstanding keynote speakers will demonstrate their extensive and global impactful work in translation studies and translation technologies.

EAMT 2024 would never be possible without the synergetic, sharp, enthusiastic, and hard working local organising team! What a dream and fun team to work with! Our local co-chair, Carolina Scarton (University of Sheffield, UK), who always supports the EAMT community and is always eager to do the best EAMT ever! Our local co-chair from ZOO Digital, Chris Oakley, also Charlotte Prescott (ZOO Digital, UK), Chris Bayliss (ZOO Digital, UK), Joanna Wright (University of Sheffield, UK), and Xingyi Song (University of Sheffield, UK). From the local organising support team, our thank you to Freddy Heppell (University of Sheffield, UK) and Tom Pickard (University of Sheffield, UK). Our special gratitude to the University of Sheffield and ZOO Digital for the joint efforts. You will surely make our 25th anniversary memorable!

The Sheffield team is working towards a special 25th anniversary. Carolina Scarton has been doing intensive work on organising and finding a home for the John Hutchins Machine Translation Archive. Carolina is deeply committed to respect John's wishes of making his library available to the community, and the former president, Mikel Forcada, and current one are fully supporting Carolina's initiatives. As an anticipation of such effort, the Sheffield team is working on presenting a sample of John's books for EAMT 2024 participants! Thank you, Carolina Scarton, for all the hard work on this. Within this topic still, a special thank you to Mike Hutchins, John's son, who is fully committed to make it happen and respect his father's vision of giving back to the community.

EAMT has been supported by generous sponsors in its initiatives along the years. This year is no exception. Our gratitude to our Silver sponsors: RWS Language Weaver, Translated, and Unbabel. To our Bronze sponsors: CrossLang, Pangeanic, STAR, and TransPerfect. Also to Apertium, our long standing collaborator sponsor, Springer, our Supporter sponsor for the Best Paper award, and our Media sponsors, MultiLingual. Your support is vital in our efforts to give back to our community through grants and other initiatives.

A note still to all our EAMT members and our participants! Without you no effort would make sense! Let us take this opportunity to create scientific collaboration and give constructive feedback. To fully enjoy the conference, please check our Code of Conduct at <https://eamt2024.sheffield.ac.uk/code-of-conduct>. I'm looking forward to seeing you all and celebrating our 25th anniversary with you!

It is our organisation's greatest wish to continue giving back to our community and to drive and be driven by our community's energy and enthusiasm. Reach out to us if you have new ideas or suggestions you would like to implement. We will try hard to accomplish it with you. Learn more about us at <https://eamt.org/>.

Helena Moniz

President of the EAMT
General Chair of EAMT 2024
University of Lisbon / INESC-ID, Portugal

Message from the Organising Committee

Ey Up!

We are delighted to welcome you to EAMT 2024 at Sheffield and celebrate its 25th anniversary. Sheffield, renowned for its rich industrial heritage and pivotal role in the steel industry, provides an ideal venue for “forging” collaboration and exchanging ideas. The outdoor city provides an ideal and welcoming environment for a thriving international community with a large number of students. The UK’s greenest city has the Peak District National Park at its doorstep, being a not to be missed place for the most adventurous (looking for sports like bouldering and mountain biking) as well as for just relaxing on a short walk enjoying the views and hospitality of the Peak District’s small villages. It is not rare that students end up staying in Sheffield and calling this fabulous place home (which is the case of some of us on the organising committee).

The University of Sheffield has also been key in developing Machine Translation research, being an active member of EAMT and part of its history. Memorable former members of the Sheffield community include: the late John Hutchins (creator of the MT Archive and author of the 1992 book *An introduction to machine translation*) was a librarian in Sheffield from 1965 and 1971; the late Professor Yorick Wilks (author of the 2008 book *Machine Translation: Its Scope and Limits*) was an emeritus professor and a former Head of the Computer Science department; and Professor Lucia Specia (the pioneer in the area of MT Quality Estimation and author of the 2018 book *Quality Estimation for Machine Translation*) was professor at the Computer Science department and former PhD supervisor of two of the local organisers.

ZOO Digital is a global provider of cloud-based localisation and digital distribution services for the media and entertainment industry. ZOO Digital offers a range of services including subtitling, dubbing, media processing, and distribution. The company uses proprietary technology platforms to streamline and manage the localisation process, making it more efficient and cost-effective. ZOO is a long-term partner of the University of Sheffield, being committed to support research in speech and text translation. They are also one of the most active sponsors of our UKRI AI Centre for Doctoral Training (CDT) in Speech and Language Technologies and their Applications and had their first sponsored PhD student working on the area of MT graduating in 2023.

We are especially excited about our conference venues, which showcase some of Sheffield’s most iconic sites. Our welcome reception will take place in the stunning Sheffield Winter Garden, one of the largest temperate glasshouses in the UK. This beautiful indoor garden is filled with exotic plants from around the world. The conference dinner will be hosted at the Kelham Island Museum, a celebrated institution that chronicles the city’s industrial history and innovation in steel production. Attendees will have the unique opportunity to visit the impressive River Don Engine, a steam engine that highlights Sheffield’s engineering and industrial heritage. We are also thrilled to announce that ZOO Digital has generously funded a special pre-conference social event at the National Videogame Museum. This interactive museum celebrates the history and culture of video games, offering a fun and engaging way for attendees to unwind and connect with each other. Finally, participants that opt to attend the Kelham Island Food tour will be taken on a culinary journey of the area, visiting a range of eating establishments and enjoying generous samples at each stop, and gaining insight into the interesting history of this famous Sheffield district.

We extend our deepest gratitude to our Silver Sponsors (Language Weaver, Translated, Unbabel), Bronze Sponsors (AppTek, CrossLang, Pangeanic, STAR Group, TransPerfect), Collaborator (Apertium), Sponsor (Springer Nature), Media Sponsors (MultiLingual), track chairs (Helena Moniz, Rachel Bawden, Víctor M Sánchez-Cartagena, Patrick Cadwell, Ekaterina Lapshinova-Koltunski, Vera Cabarrão, Konstantinos Chatzitheodorou, Mikel Forcada, Mary Nurminen, Diptesh Kanojia, Barry Haddow), keynote speakers (Alexandra Birch, Valter Mavrič), the programme committee, and authors.

Our special very thanks goes to the volunteers (Freddy Heppell, Tom Pickard, Edward Gow-Smith, and Shenbin Qian), administrative and technical support (Natalie Hothersall, Kim Matthews-Hyde, and James Bishop), events management (Gavin Lambert), and our emergency organisation support committee (Xi Wang and Mark Stevenson) whose hard work and dedication have made this conference possible. We also thank the EAMT executive committee for all the support provided and trust in our work, in particular Helena Moniz (also our general chair) and Sara Szoc. Finally, we also thank the Department of Computer Science, in particular Professor Heidi Christensen (Head of the Computer Science department) and Professor Kalina Bontcheva (head of the Natural Language Processing research group), for their support of our conference.

We invite you to explore and enjoy the city of Sheffield. Whether you are discovering its historical landmarks, enjoying its green spaces, or immersing yourself in its rich cultural offerings, we hope you find inspiration both within and beyond the conference sessions.

Carolina Scarton
(University of Sheffield)
(EAMT Secretary)

Charlotte Prescott
(ZOO Digital)

Chris Bayliss
(ZOO Digital)

Chris Oakley
(ZOO Digital)

Joanna Wright
(University of Sheffield)

Stuart Wrigley
(University of Sheffield)

Xingyi Song
(University of Sheffield)

Preface by the Programme Chairs

On behalf of the programme chairs, a warm welcome to the 25th annual conference of the European Association for Machine Translation in Sheffield, UK. Following last year's restructuring of the research track into two tracks, this year's conference programme is divided into four tracks, two dedicated to research (one for technical papers for development of MT techniques and one focused on translators and users of MT), an implementations and case studies track and a projects and products track.

The **Technical Research track** invited submissions on significant results in any aspect of MT and related areas, including multilingual technologies. As in previous years, this track proved the most popular of the four tracks, receiving a total of 46 submissions from 26 different countries. With one desk rejection and four paper withdrawals, 20 papers were accepted from 18 different countries, resulting in an acceptance rate of 43%, which is consistent with previous years. Six of the accepted papers are to be presented orally and the remaining 14 will be presented as posters.

Following current practices in the field, papers focus on neural MT (NMT), with several works also studying large language models (LLMs) for translation. Accepted papers represented a wide range of topics relevant to current interests in the field: context-aware MT (Appicharla et al., 2024; Gete and Etchegoyhen, 2024); the application of techniques for low-resource languages and scenarios (Chen et al. 2024; Guttman et al.; Simonsen and Einarsson, 2024; Song et al. 2024) including sign language translation (McGill et al., 2024); attention to specific domains (Ploeger et al., 2024; Roussis et al. 2024) and to the challenges faced when dealing with them, e.g. for the incorporating of terminologies (Hauhio and Friberg. 2024). A number of works study LLMs (Chen et al., 2024.; Mujadia et al. 2024; Simonsen and Einarsson, 2024), a trend that is likely to continue in years to come. As a sign of the progress being made in the quality of MT systems, the EAMT 2024 technical research track also features several papers dealing with topics related to the alignment of MT outputs with the expectations of human users (Moura Ramos et al., 2024), including on the topics of toxicity (García Gilabert et al., 2024), formality (Wisniewski et al., 2024) and gender-inclusiveness (Piergentile et al., 2024).

We would like to give our thanks to all the authors who submitted to the track and to the 72 reviewers, who provided feedback and insightful comments for the submissions received. We are particularly grateful to the emergency reviewers who agreed to review papers at the last minute in order for decision notifications to be sent out on time.

Translators and Users Track

The focus of the Translators and Users track is to cover a wide range of topics related to the interaction between human translators and other users of machine translation. The second edition of this track attracted 21 papers, with 18 accepted out of them which comprises 85.71% of acceptance. Five of the accepted papers will be presented orally and 13 will be presented at a dedicated poster presentation session. The accepted papers address the interaction between machine translation and its users from various perspectives and cover various aspects of machine translation use, including both interlingual and intralingual translation, looking into challenges and potentials of large language models, as well as correlating human and machine translation. They provide novel examinations of long-standing areas of interest for translators and users in this space including translation quality, MT performance, tools and methods to assist translators, and users' perceptions and attitudes towards MT.

Sui He experiments with prompts applying ChatGPT for automatic translation. The author compares translation briefs and what s/he calls persona prompts (assignment of a role of an author or translator to the system).

Claudio Fantinuoli and Xiaoman Wang explore correlation between automatic quality evaluation metrics with human judgements for simultaneous interpreting.

Serge Gladkoff et al. investigate the application of the state-of-the-art LLMs for uncertainty estimation of MT output quality, which is required to determine the need for post-editing.

Paolo Canavese and Patrick Cadwell analyse translators' perspectives on the use of machine translation and its impact in a specific institutional setting, i.e. the Swiss Confederation.

Marta R. Costa-jussà et. al. presents a novel multimodal and multilingual pipeline to automatically identify and mitigate added toxicity at inference time, which does not require further model training.

Celia Soler Uguet et al. compare performance of various LLMs for automatic post-editing and MQM error annotation across four languages in a medical domain.

Lise Volkart and Pierrette Bouillon compare human translation and post-edited machine translation from a lexical and syntactic perspective in two language pairs: English-French and German-French. Their aim is to find out if NMT systems produce lexically and syntactically poorer translations.

Gabriela Gonzalez-Saez et al. describe their work on visualisation tools to foster collaborations between translators and computational scientists.

Maria Kunilovskaya et al. explore if GPT-4 can reduce translationese (specific feature of translated texts) in human-translated texts on bidirectional German-English data from the Europarl corpus.

Rachel Bawden et al. evaluate the effectiveness of a post-editing pipeline for the translation of scientific abstract demonstrating that such pipelines can be effective for high-resource language pairs.

Vicent Briva-Iglesias and Sharon O'Brien present a user study on professional English-Spanish translators in the legal domain, which focuses on impact of negative or positive translators' pre-task perceptions of MT.

Miguel Rios et al. explore the impact of automatic speech synthesis in a post-editing machine translation environment in terms of quality, productivity, and cognitive effort.

Silvana Deilen et al. evaluate performance of intralingual machine translation systems in the area of health communication.

Michael Carl looks into a way of using machine learning to validate the empirical objectivity of a taxonomy for behavioral translation data.

João Lucas Cavalheiro Camargo et al. conduct a survey aimed at identifying and exploring the attitudes and recommendations of machine translation quality assessment educators.

Bettina Hiebl and Dagmar Gromann propose to use the Best-Worst scoring for a comparative translation quality assessment of one human and three machine translations in the English-German language pair.

Adaeze Ngozi Oluoba et al. investigate methods to detect critical and harmful MT errors caused by non-compositional multi-word expressions and polysemy. For this, they design diagnostic tests that they apply on collections of medical texts.

Nora Aranberri explores evaluation of the Spanish-Basque translations. The author compares evaluations done by volunteers and translation professionals.

We would like to thank the 28 colleagues that kindly gave their time and effort to review the papers submitted to this track. Your reviews were perceptive, detailed, and, above all, constructive. We would also like to express our special gratitude to those reviewers who stepped in at the last minute to provide extra reviews at short notice. Your collegiality was a great support to us.

Implementations and case studies track

Entering the second year with the Implementations & Case Studies track, we are excited to share the acceptance of 9 papers. These papers cover a wide range of topics, showing the latest advancements, challenges, and creative ideas in MT. The goal for this track remains unchanged: to report experiences with MT in organizations of all types (both industry and academia) and to share views and observations based on day-to-day experiences working within the dynamic field of MT.

The journey begins with Oliver et al. who detail corpus creation and NMT model training for legal texts in low-resource languages, shedding light on the intricacies of bridging linguistic gaps in specialized domains.

Continuing on this path, Eschbach-Dymanus et al. delve into the realm of domain adaptation of MT for business IT texts, offering valuable insights into the translation capabilities of LLMs.

Bechara et al. present the creation and evaluation of a multilingual corpus of UN General Assembly debates, underscoring the importance of robust linguistic resources in advancing our understanding of multilingual communication.

Additionally, Korotkova and Fishel present groundbreaking research on Estonian-centric MT, emphasizing data availability and releasing a back-translation corpus of over 2 billion sentence pairs.

Moving forward, Silveira et al. examine the suitability of GPT-4 in generating subject-matter expertise assessment questions, illuminating new avenues for leveraging artificial intelligence in language assessment.

Continuing in this direction, Nunziatini et al.'s research explores the advantages and disadvantages of using LLMs to make raw MT output gender-inclusive.

Berger et al. work in prompting LLMs with human error markings represents a significant step towards self-correcting MT, offering promising avenues for enhancing translation quality in specialized domains.

Vasiljevs et al. present findings from a comprehensive market study on advancing digital language equality in Europe. They provide critical insights into the current landscape of multilingual website translation and introduce innovative open-source solutions aimed at bridging linguistic divides.

Lastly, Vincent et al. present an insightful case study on contextual MT in professional subtitling. This work sheds light on the practical implications of incorporating extra-textual context into the MT pipeline, offering valuable lessons for industry practitioners.

Together, these papers paint a vivid picture of the ever-evolving landscape of MT Implementations & Case Studies, showcasing the ingenuity, resilience, and collaborative spirit of the MT community.

Products and Projects track

This year we received 31 submissions and 30 papers were accepted. The selection will provide a plethora of products and projects being developed by our community with a rich set of topics, ranging from EAMT sponsored projects, European projects, services and products from distinguished industry and research players of our community. It will surely be a very lively session with the usual poster boosters (one of our EAMT conferences' favourite moments) and poster sessions. We would like to thank the 25 reviewers, who were drafted quite late, for their quick response and their timeliness.

Rachel Bawden
(Inria, Paris, France)

Víctor M Sánchez-Cartagena
(University of Alacant, Spain)

Patrick Cadwell
(DCU, Ireland)

Ekaterina Lapshinova-Koltunski
(University of Hildesheim, Germany)

Vera Cabarrão
(Unbabel, Portugal)

Konstantinos Chatzitheodorou
(Strategic Agenda, UK)

Helena Moniz
(University of Lisbon (FLUL)
INESC-ID, Portugal)

Mikel Forcada
(Prompsit Language Engineering
Elx, Spain)

Mary Nurminen
(Tampere University, Finland)

Diptesh Kanojia
(University of Surrey, UK)

Barry Haddow
(University of Edinburgh, UK)

EAMT 2023 Best Thesis Award (Anthony C Clarke Award)

For the 2023 best theses award, we received a total of 9 submissions; all were MT-related thesis defended in 2023. We recruited 20 reviewers to examine and score the theses, considering how challenging the problem tackled in each thesis was, how relevant the results were for machine translation as a field, and what the strength of its impact in terms of scientific publications was. Two EAMT Executive Committee members also analysed all theses. It became very clear that 2023 was another very good year for PhD theses in machine translation.

All theses had merit, all candidates had strong CVs and, therefore, it was very difficult to select a winner.

A panel of two EAMT Executive Committee members (Barry Haddow and Helena Moniz) was assembled to process the reviews and select a winner that was later ratified by the EAMT executive committee.

We are pleased to announce that the **winner of the 2023 edition of the EAMT Best Thesis Award is Marco Gaido's thesis "Direct Speech Translation Toward High-Quality, Inclusive, and Augmented Systems"** (FBK, Italy), supervised by Marco Turchi and Matteo Negri.

In addition, the committee judged that the following theses, were **"highly commended"**:

Jannis Vamvas: "Model-based Evaluation of Multilinguality" (University of Zurich, Switzerland), supervised by Rico Sennrich and Lena A. Jäger

Javier Iranzo-Sánchez: "Streaming Neural Speech Translation" (UPV, Spain), supervised by Jorge Civera and Alfons Juan

The awardee will receive a prize of €500, together with a suitably-inscribed certificate. In addition, Dr. Gaido will present a summary of their thesis at the 25th Annual Conference of the European Association for Machine Translation. In order to facilitate this, the EAMT will waive the winner's registration costs, and will make available a travel bursary of €200.

Barry Haddow, chair, EAMT BTA award 2023
University of Edinburgh, UK

Organising Committee

General Chair

Helena Moniz, Universidade de Lisboa / INESC-ID

Local Organising Committee

Carolina Scarton, University of Sheffield
Charlotte Prescott, ZOO Digital
Chris Bayliss, ZOO Digital
Chris Oakley, ZOO Digital
Joanna Wright, University of Sheffield
Xingyi Song, University of Sheffield

Local Organising Support Team

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Freddy Heppell, University of Sheffield
Tom Pickard, University of Sheffield
Shenbin Qian, University of Surrey

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Konstantinos Chatzitheodorou, Strategic Agenda

Products and Projects Track Program Chairs

Helena Moniz, Universidade de Lisboa
Mikel Forcada, Prompsit Language Engineering

Research Translators Users Track Program Chairs

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Ekaterina Lapshinova-Koltunski, Universität Hildesheim

Technical Track Program Chairs

Rachel Bawden, Inria
V́ctor M. Sánchez-Cartagena, Universidad de Alicante

Thesis Award Program Chairs

Barry Haddow, University of Edinburgh

Workshops and Tutorials Program Chairs

Diptesh Kanojia, University of Surrey
Mary Nurminen, Tampere University

Programme Committee

Implementations Case Studies Track

Eleftherios Avramidis, Fred Bane, Adam Bittlingmayer, Marianna Buchicchio, Laura Casanellas, Laura Casanellas, Konstantin Dranch, László János Laki, Mara Nunziatini, Raj Nath Patel, Spyridon Pilos, Heather Rossi, Konstantin Savenkov, Marina Sánchez Torrón, Anna Zaretskaya

Research Translators Users Track

Sergi Alvarez-Vidal, Nora Aranberri, Lynne Bowker, Vicent Briva-Iglesias, João Lucas Cavaleiro Camargo, Michael Carl, Dragoş Ciobanu, Oliver Czulo, Joke Daems, Christophe Declercq, Dr. Silvana Deilen, Félix Do Carmo, Aletta G. Dorst, Maria Fernandez-Parra, Federico Gaspari, Junyan Jiang, Ramuné Kasperé, Dorothy Kenny, Maarit Koponen, Rudy Looock, Lieve Macken, Antoni Oliver, David Orrego-Carmona, Maria Del Mar Sánchez Ramos, Celia Rico, Carlos S C Teixeira, Susana Valdez, Mihaela Vela, Lucas Nunes Vieira

Technical Track

Sweta Agrawal, Eleftherios Avramidis, Parnia Bahar, Loic Barrault, Magdalena Biesialska, Sheila Castilho, Chloé Clavel, Éric Villemonte De La Clergerie, Raj Dabre, Aswarth Abhilash Dara, Miguel Domingo, Hiroshi Echizenya, Cristina España-Bonet, Miquel Esplà-Gomis, Marcello Federico, Marco Gaido, Aarón Galiano-Jiménez, Mattia Antonino Di Gangi, Thanh-Le Ha, Rejwanul Haque, Rebecca Knowles, Philipp Koehn, Maria Kunilovskaya, Gregor Leusch, Andreas Maletti, Antonio Valerio Miceli Barone, Kenton Murray, Masaaki Nagata, Toshiaki Nakazawa, Jan Niehues, Constantin Orasan, Daniel Ortiz-Martínez, Pavel Pecina, Stephan Peitz, Sergio Penkale, Andrei Popescu-Belis, Maja Popovic, Juan Antonio Pérez-Ortiz, Tharindu Ranasinghe, Natalia Carolina Alencar De Resende, Miguel Rios, Rudolf Rosa, Fatiha Sadat, Benoît Sagot, Beatrice Savoldi, Yves Scherrer, Djamé Seddah, Rico Sennrich, Dimitar Shterionov, Michel Simard, Patrick Simianer, Mirella De Sisto, Felix Stahlberg, Katsuhito Sudoh, Felipe Sánchez-Martínez, Aleš Tamchyna, Joël Tang, Ayla Rigouts Terryn, Arda Tezcan, Jörg Tiedemann, Antonio Toral, Masao Utiyama, Vincent Vandeghinste, Dušan Variš, David Vilar, Martin Volk, Trang Vu, Taro Watanabe, Minghao Wu, François Yvon, Biao Zhang, Dakun Zhang

Thesis Award

Rachel Bawden, Daniel Beck, Alexandra Birch, Ondřej Bojar, Bill Byrne, Vera Cabarrão, Sheila Castilho, Anna Currey, José G. C. De Souza, Miquel Esplà-Gomis, Marcello Federico, Mikel L. Forcada, Liane Guillou, Diptesh Kanojia, Philipp Koehn, Mary Nurminen, Constantin Orasan, John E. Ortega, Santanu Pal, Danielle Saunders, Carolina Scarton, Xingyi Song, Felix Stahlberg, Antonio Toral, Marina Sánchez Torrón, Bram Vanroy, Marcely Zanon Boito

Keynote Talk

Harnessing the benefits of machine translation at the European Parliament: from current practices to future possibilities

Valter Mavrič
European Parliament
24-06-2024 11:00:00

Abstract: Machine translation (MT) is an essential tool for one of the largest institutional translation providers in the world: the European Parliament's Directorate-General for Translation (DG TRAD). DG TRAD is home to 24 language units that embody and put into practice one of the core democratic principles of the European Union: multilingualism. In this complex environment, MT has become an integral part of DG TRAD's work, helping it to manage an ever-growing volume of translation requests and allowing it to focus on the unique value that only humans can bring to the translation process. The MT technology used in DG TRAD is a focal point of cooperation between the EU institutions and is constantly evolving. To best harness the benefits, DG TRAD relies on a dedicated team that carries out tests to explore the best ways of using MT for DG TRAD's content. This presentation will tell you, from a user's perspective, about DG TRAD's journey to identify the most efficient ways of working with MT. Here are some of the questions we will cover:

- How well does MT handle the European Parliament's content? Do all languages produce the same results? How does MT quality vary based on the type of content?
- How does MT improve efficiency? What efforts are still necessary after integrating MT into DG TRAD's workflow?
- What about clear language? How well does MT perform in this area?

Finally, we will look at the new areas DG TRAD is exploring in this age of artificial intelligence (AI) and where we see that further research could provide added value.

Bio: Valter Mavrič is Director-General of the Translation Service (DG TRAD) at the European Parliament (since 2016), where he was previously acting Director-General (from 2014), Director (from 2010) and Head of the Slovenian Translation Unit (from 2004). With an MA in applied linguistics and further training in translation, interpretation, linguistics and management, he has a long experience as manager, translator, interpreter and teacher of languages. He works in Slovenian, Italian, English, French, and Croatian and is currently preparing a PhD in strategic communication.

Keynote Talk

Translation and LLMs

Alexandra Birch

School of Informatics, University of Edinburgh

26-06-2024 09:15:00

Abstract: What is the future of translation research in the era of large language models? Brown et al. in 2020 showed that prompting GPT3 with a few examples of translation could result in translations which were higher quality than SOTA supervised models at the time (into English and only for French, German). Until this point, research on machine translation had been central to the field of natural language processing, often attracting the most submissions in annual NLP conferences and leading to many breakthroughs in the field. Since then, there has been enormous interest in models which can perform a wide variety of tasks and interest in translation as a separate sub-field has somewhat diminished. However, translation remain a compelling and widely used technology. So what is the promise of LLMs for translation and how should we best use them? What opportunities do LLMs unlock and what challenges remain? How can the field of translation still contribute to NLP? I will touch on some of my own research but I focus on these broader questions.

Bio: Alexandra Birch is a Reader in Natural Language Processing in the Institute for Language, Cognition and Computation (ILCC), School of Informatics, University of Edinburgh. She is a leader of the StatMT group and a co-founder of Aveni.ai - an award winning startup in speech analytics and conversational AI. Her main research focuses on machine translation and multilingual dialogue, but she has a broad interest in leveraging NLP to create compelling applications that improve people's lives.

Tutorial

Linguistically Motivated Neural Machine Translation

Haiyue Song, Hour Kaina, Raj Dabre

National Institute of Information and Communications Technology (NICT), Japan

27-06-2024 09:00:00

Abstract: In this tutorial, we focus on a niche area of neural machine translation (NMT) that aims to incorporate linguistics into different stages in the NMT pipeline, from pre-processing to model training to evaluation. We first introduce the background of NMT and fundamental analysis tools, such as word segmenters, part-of-speech taggers, and dependency parsers. We then cover topics including 1) word/subword segmentation, and character decomposition during MT data pre-processing, 2) incorporating direct and indirect linguistic features into NMT models, and 3) fine-grained linguistic evaluation for MT systems. We reveal the impact of orthography, syntax, and semantics information on translation performance. This tutorial is mainly aimed at researchers interested in the intersection of linguistics and low-resource machine translation. We hope this tutorial inspires and encourages them to develop linguistically motivated high-quality MT systems and evaluation benchmarks.

Panel

LLMs and Machine Translation for Low-Resource Languages: Bridging Gaps or Widening Divides?

24-06-2024 15:00:00 - 17:00:00

LLMs such as ChatGPT, Claude and Gemini 1.5 have come to dominate the AI landscape, through their ability to perform well across a wide range of tasks and languages. They have excellent abilities in machine translation for high-resource languages, often performing on par with dedicated translation models, and with exciting use-cases including stylization, post-editing, and human-in-the-loop approaches. Nevertheless, these models' capabilities are much more limited in languages with less digital representation: performance in lower-resource languages can be regarded as a byproduct rather than a focus and the reliance on English language training data reinforces English language cultural hegemony, with particularly high representation of American English cultural knowledge in model weights. In downstream evaluation, claims of multilinguality typically belie the dependence on English-centric data: the FLORES dataset, for example, which contains MT evaluation data in over 200 languages, is largely translated from English. This panel will explore the challenges and opportunities associated with LLMs for translating low-resource languages, investigating the dangers of exacerbating existing linguistic and cultural biases, the potential of LLMs to democratise information access, and how to ensure that these models benefit rather than marginalise underrepresented linguistic communities.

Panelists:

Adaeze Ngozi Ohuoba, University of Leeds, UK Adaeze Ngozi Ohuoba is a PhD researcher at the School of Languages, Cultures and Societies, University of Leeds. Her PhD research focuses on using large language models to detect and predict English medical source texts that could produce potentially harmful outputs when machine translated into a low-resource language like Igbo. Prior to commencing her PhD studies, she worked as a lecturer at the Department of Foreign Language and Translation Studies, Abia State University, Nigeria. She is also a freelance translator/ editor specialising in legal, medical and literary translations from French/Igbo into English and English/French into Igbo. Her research interests include Machine Translation for Low-Resourced Languages, Computational Linguistics, French as a Foreign Language and Language in Health

Alexandra Birch, University of Edinburgh, UK Alexandra Birch is a Reader in Natural Language Processing in the Institute for Language, Cognition and Computation (ILCC), School of Informatics, University of Edinburgh. She is a leader of the StatMT group and a co-founder of Aveni.ai - an award winning startup in speech analytics and conversational AI. Her main research focuses on machine translation and multilingual dialogue, but she has a broad interest in leveraging NLP to create compelling applications that improve people's lives.

Chris Oakley, ZOO Digital, UK Chris Oakley is the Chief Technology Officer (CTO) of ZOO Digital, a leading provider of cloud-based localization and digital distribution services for the global entertainment industry. With a career spanning over two decades in the technology and digital media sectors, Chris brings a wealth of experience and a visionary approach to his role at ZOO Digital. As CTO, Chris Oakley is responsible for overseeing the development and implementation of cutting-edge AI and ML technologies that power ZOO Digital's innovative services. Under his leadership, the company has continued to pioneer advancements in AI and ML cloud-based solutions, enabling efficient and scalable workflows for the localization and distribution of movies, TV shows, and other digital content.

Helena Moniz, President of EAMT & IAMT. University of Lisbon, Portugal. INESC-ID, Portugal

Helena Moniz is the President of the European Association for Machine Translation (2021-) and President of the International Association for Machine Translation (2023-). She is also the Vice-Coordinator of the Human Language Technologies Lab at INESC-ID, Lisbon. Helena is an Assistant Professor at the School of Arts and Humanities at the University of Lisbon, where she teaches Computational Linguistics, Computer Assisted Translation, and Machine Translation Systems and Post-editing. She is now in a very exciting project, coordinated by Unbabel, the Center for Responsible AI (<https://centerforresponsible.ai>), within the Portuguese Recovery and Resilience Plan, as Chair of the Ethics Committee. Helena graduated in Modern Languages and Literature at the School of Arts and Humanities, University of Lisbon (FLUL), in 1998. She took a Teacher Training graduation course in 2000, a Master's degree in Linguistics in 2007, and a PhD in Linguistics at FLUL in cooperation with the Technical University of Lisbon (IST) in 2013. She has been working at INESC-ID/CLUL since 2000, in several national and international projects involving multidisciplinary teams of linguists and speech processing engineers. Within these fruitful collaborations, she participated in more than 20 national and international projects. From 2015/09 to 2024/04, she was the PI of a bilateral project between INESC-ID and Unbabel, a translation company combining AI + post-editing, working on scalable Linguistic Quality Assurance processes for crowdsourcing. She was responsible for the implementation in 2015 of the MQM metric, the creation of the Linguistic Quality Assurance processes developed at Unbabel for Linguistic Annotation and Editors' Evaluation. She also worked on research projects, involving Linguistics, Translation, and Responsible AI, and products developed by the Labs Team, mostly cultural transcreation, high risk products, and silently controlled language metrics for dialogues. In a sentence, she is passionate about Language Technologies in a human-centric perspective and always feels like a child eager to learn!

Mirko Lorenz, Deutsche Welle, Germany Mirko Lorenz is an Innovation Manager working for Deutsche Welle, Germany's international broadcaster. He has been a member of the Research and Cooperation Team (ReCo) since 2008. One main outcome of his work is plain X, a 4-in-1 software to simplify content adaptation. In plain X, users can transcribe, translate, subtitle, and create (synthetic) voice-overs. Mirko has a master's in economics and history from the University of Cologne and a professional background in journalism. He co-founded Datawrapper, a tool to create charts and maps which is used in many large newsrooms worldwide.

Valter Mavrič, DG TRAD, European Parliament Valter Mavrič is Director-General of the Translation Service (DG TRAD) at the European Parliament (since 2016), where he was previously acting Director-General (from 2014), Director (from 2010) and Head of the Slovenian Translation Unit (from 2004). With an MA in applied linguistics and further training in translation, interpretation, linguistics and management, he has a long experience as manager, translator, interpreter and teacher of languages. He works in Slovenian, Italian, English, French, and Croatian and is currently preparing a PhD in strategic communication.

Moderator: Edward Gow-Smith, University of Sheffield, UK

Moderator: Carolina Scarton, University of Sheffield, UK

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