

Professor Ruslan Mitkov
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Topic: Translation in the Artificial Intelligence Era: the Wind of Change is Blowing

Abstract

The keynote speech will review the state of the art in translation technology and discuss how the latest advances in Artificial Intelligence will impact the future of translation and, more broadly, language professions. The presentation will begin with a brief overview of the history of machine translation, will outline how translation tools emerged, and will touch on the success of statistical and later, neural machine translation. The talk will then proceed to comment on the impact that recent developments in deep learning and large language models have had on the performance of translation technology and natural language processing. Finally, based on these latest developments, the speaker will attempt to predict how the profession and business of translation will evolve in the future.

Biography

Prof Dr Ruslan Mitkov is Professor in Computing and Communications at Lancaster University, one of the top-10 UK universities. Prior to joining Lancaster University, Prof Mitkov worked at the University of Wolverhampton where he created and led the internationally leading Research Group in Computational Linguistics, and was also Director of the Research Institute of Information and Language Processing as well as Director of the Responsible Digital Humanities Lab. Prof Mitkov is also Distinguished Professor at the University of Alicante, Spain.

Dr Mitkov has been working in Natural Language Processing (NLP), Computational Linguistics, Corpus Linguistics, Machine Translation, Translation Technology and related areas since the early 1980s. Whereas Prof Mitkov is best known for his seminal contributions to the areas of anaphora resolution, automatic generation of multiple-choice tests and new generation translation memory systems, his extensively cited research (more than 350 publications including 20 books, 40 journal articles and 45 book chapters) also includes but is not limited to topics such as computational phraseology, machine translation, natural language processing for language disabilities, automatic summarisation, computer-aided language processing, corpus annotation, bilingual term extraction, automatic identification of cognates and false friends, NLP-driven corpus-based study of translation universals and text simplification. His recent research includes the employment of Deep Learning, Large Language Models and Artificial Intelligence in Natural Language Processing, Translation Technology, Linguistics and language research in general. Prof Mitkov is not only known for his original research outputs with high scientific impact, but also known for his vision and innovative applied research which seeks to enhance the work efficiency of different professions (teachers, translators and interpreters) or seeks to improve the quality of life (people with disabilities).

Prof Mitkov is author of the monograph *Anaphora resolution* (Longman) and sole Editor of *The Oxford Handbook of Computational Linguistics* (Oxford University Press) which has been hailed as the most successful Oxford Handbook and whose second, substantially revised edition was published in June 2022. Current prestigious projects include his role as Executive Editor of the journal *Natural Language Processing* (formerly *Journal of Natural Language Engineering*) published by Cambridge University Press, Editor-in-Chief of the *Natural Language Processing* book series of John Benjamins publishers, and Consulting Editor of Oxford University Press publications in *Computational Linguistics*.

Prof Mitkov has been invited as a keynote speaker at more than 240 international conferences (28 keynote speeches in 2024 only) and is/has been Chair of more than 70 conferences on *Natural Language Processing*, *Translation Technology* and *Applied Linguistics* topics. He is editor of more than 15 volumes published by Springer and John Benjamins.

Mitkov designed and is Director of the first and only Erasmus Mundus Master's programme in *Technology for Translation and Interpreting* - an innovative and inspirational programme, with a strong research focus but an equally strong emphasis on business; leading companies in the global translation and language industry participate as associated partners.

Prof Mitkov has been an external examiner of many doctoral theses and curricula in the UK and abroad, including Master's programmes related to *Natural Language Processing*, *Computational Linguistics*, *Digital Humanities*, *Translation* and *Translation Technology*.

Ruslan Mitkov received his MSc from the Humboldt University in Berlin, his PhD from the Technical University in Dresden and worked as a Research Professor at the Institute of Mathematics, Bulgarian Academy of Sciences, Sofia. He is a Fellow of the Alexander von Humboldt Foundation, Germany, Marie Curie Fellow, Distinguished Visiting Professor at the University of Franche-Comté in Besançon, France and Distinguished Visiting Researcher at the University of Malaga, Spain.

Ruslan Mitkov is Vice President of AsLing an international Association for promoting *Language Technology*.

In September 2022 the renowned National Board of Medical Examiners (USA) presented Prof Mitkov with a certificate of distinguished collaboration which resulted in lasting impact on the strategic planning and decision making of the US organisation and their employment of NLP solutions to assessment for the last 17 years.

In recognition of his outstanding professional/research achievements, Prof Mitkov was awarded the title of Doctor Honoris Causa three times.

For additional information, please visit Prof Mitkov's webpage (<https://wp.lancs.ac.uk/mitkov/>).