

Language changes the way we perceive migration

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The number of foreign nationals living in Slovakia has increased more than tenfold over the past 20 years. However, the way Slovak media talks about migration has not reflected this change. A new study shows that media coverage of migration changes mainly during major social, political, and geopolitical events. It also shows that the language used to describe migration influences how the topic is perceived. These are the findings of the MIMEDIS research project, which is the first to map how migration has been portrayed in Slovak media over more than two decades.

The project is a collaboration between the Faculty of Social and Economic Sciences and the Faculty of Mathematics, Physics and Informatics at Comenius University Bratislava, together with the Kempelen Institute of Intelligent Technologies (KInIT). It brings together expertise from technology and the social sciences and is a strong example of interdisciplinary academic collaboration.

“Multidisciplinary research is essential if we want to achieve results with greater impact. We believe the outcomes of this project will go beyond migration research and that the methods and tools we developed will also be useful for other social science researchers,” explains **Marián Šimko, Team Lead and Natural Language Processing Expert at KInIT.**

The research is based on the idea that the way the media reports on a topic, including the language it uses, influences how people understand it. To explore this, the researchers developed AI tools that can automatically identify attitudes towards migration in news articles. They worked with Slovak, a language that has far fewer language resources and AI tools available than English.

The team used these tools to analyse around 950,000 articles published between 2003 and 2024. The dataset includes articles from around 9,400 sources, including mainstream and alternative media, both print and online. This created one of the largest media datasets ever compiled in Slovakia for academic research and offers a unique view of how public debate about migration has changed over time.

More than 20 years of media coverage reveal changing trends

Looking at more than 20 years of media coverage allowed the researchers to identify an interesting trend. While the number of legally residing foreign nationals in Slovakia grew from around 29,000 to more than 337,000, the share of negative headlines did not follow the same pattern and actually started to decline after 2015. This suggests that the tone of media coverage is influenced more by major social and political events than by the actual number of foreign nationals living in Slovakia.

The results also show how this changed over time. Until 2014, most articles had a neutral tone, while positive coverage gradually became more common. In 2015, the so-called European migration crisis led to a sharp increase in negative coverage. In contrast, 2022, when refugees from Ukraine arrived in Slovakia, saw the highest share of positive statements during the entire period covered by

the study.

Language, metaphors, and gender shape the tone of migration coverage

While major events influence when the tone of the debate changes, language plays an important role in how migration is presented. *“Our findings suggest that using expressions such as migration wave or influx of migrants can make some people feel that migration is out of control. A similar effect appears when people who migrate are portrayed mainly as men, even though many are women and children. This kind of representation can lead to stronger opposition to migration,”* says **Andrej Findor from the Institute of European Studies and International Relations at the Faculty of Social and Economic Sciences, Comenius University Bratislava**. The same applies to crisis framing. When a headline presents migration as a crisis, the share of negative attitudes is around one-third higher, while positive views appear only rarely.

At the same time, the research shows that Slovak media generally keeps a factual and balanced tone. The articles themselves include a wider range of attitudes, with slightly more positive than negative statements, while headlines remain mostly neutral and focused on informing readers. This is true even during times of crisis, when nearly 89 percent of migration-related headlines remain neutral. The findings help explain how language and framing shape the way migration is presented in the media.

The project’s impact goes beyond migration. The tools developed by the researchers can also be used to study other social issues and the way they are covered in the media. MIMEDIS also helps advance Slovak language technologies, an area that has long lagged behind many other languages. This creates a foundation for future research into how information spreads through the Slovak media landscape and what shapes public opinion on important social issues.

<https://kinit.sk/language-changes-the-way-we-perceive-migration>