

## Report on the outcomes of a Short-Term Scientific Mission<sup>1</sup>

Action number: CA21129 - OPINION What are Opinions? Integrating Theory and Methods for Automatically Analyzing Opinionated Communication

Grantee name: Barbara Lewandowska-Tomaszczyk

### Details of the STSM

Title: **AGE and GENERATIONS IN SOCIAL MEDIA: A STUDY OF ONLINE COMMENTARIES**

Start and end date: 30/03/2025 to 08/04/2025

### Description of the work carried out during the STSM

The main objective of this STSM was to cooperatively develop, with Prof Sophia Hunger of the Computational Social Science Department at the University of Bremen, a conceptual foundation and a research agenda for the study of opinionated press and social media texts reflecting age-related and generational opinions and stereotypes.

The visit covered 10 days and was devoted to the development of a research agenda on age and generations opinions and stereotypes using cognitive linguistic conceptualisation and pragmatic stance approaches merged with computational data identification and analytic methodology. The first two days of my visit were devoted to the exchange of expertise in this area and a review of relevant literature (as exemplified below). The next three days dealt with data identification, collection and preliminary analyses, first of English samples, next of Polish ones with sampling of the German texts, while the final days focused on the identification of the narrower topic and materials for the first joint paper, as well as the proposed timetable devoted to the preparation and works on the next publication in a thematic journal as well as on conference presentations.

---

coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the GH for payment of the Grant. <sup>1</sup> This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding C

Detailed activities performed during the following days of my STSM visit included English and Polish data identification and extraction, and a comparison of online press articles with Reddit discussions/comments, identified with a keyword (topic) selection methodology that facilitates the identification of user-generated content and discussions. Data extraction was performed on Reddit (relevant datasets of posts, comments, and replies). By means of textual analysis, generational stereotype identification was performed to identify recurring themes and stereotypes associated with different generations. Employment of affective parameters to identify the emotional tone of comments was also performed to identify attitudinal factors of the posts. The concept of *generation markers* was defined in media discourse over time to show the fluctuation of the relevant opinions across time.

The final tasks of the STSM were connected with the automatic identification of the Polish press data concerning age and generational issues as well as excerpts from German texts for the sake of cross-linguistic comparison of the commentators' stances and outcomes. A detailed analysis was performed on the English texts, the Polish data were scrutinised for the relevant generational markers, with German samples taken for comparison. This part of the outcomes will be used to prepare a joint conference presentation on the Polish data and a subsequent joint paper that will provide a cross-linguistic perspective on analysing age and generation data in social media to be submitted to a scientific journal.

### **Selected literature review references**

- Ayalon, L., & Tesch-Römer, C. (Eds.). (2018). *Contemporary perspectives on ageism*. International Perspectives on Aging. Vol. 19. Springer.
- Andersen, K., Ohme, J., Bjarnøe, C., Bordacconi, M. J., Albæk, E., & De Vreese, C. H. (2021). *Generational gaps in political media use and civic engagement: From baby boomers to generation Z*. Taylor & Francis.
- Benoit, K., Watanabe, K., Wang, H., Nulty, P., Obeng, A., Müller, S., and Matsuo, A. (2018). quanteda: An R package for the quantitative analysis of textual data. *Journal of Open Source Software*, 3(30), 774–774.a
- Benson, J., & Brown, M. (2011). Generations at work: Are there differences and do they matter? *The International Journal of Human Resource Management*, 22(9), 1843–1865.
- Bristow, J. (2016). The making of 'Boomergeddon': The construction of the Baby Boomer generation as a social problem in Britain. *The British Journal of Sociology*, 67(4), 575–591.
- Culpin, V., Millar, C., & Peters, K. (2015). Multi-Generational frames of reference: Managerial challenges of four social generations in the organisation. *Journal of Managerial Psychology*, 30(1).
- Elliott, R. (2022). The 'Boomer remover': Intergenerational discounting, the coronavirus and climate change. *The Sociological Review*, 70(1), 74–91.
- Freelon, D. (2018). Computational research in the post-API age. *Political Communication*, 35(4), 665–668.
- Mannheim, K. (1969). The sociological problem of generations. *Studies in Social Movements*, 1–30.
- Meade, P. (2020). Reaktionen auf Schüler\*innenrebellion: Adultismus im Diskurs um Greta Thunberg und die „Fridays for Future“-Bewegung. In R. Budde & U. Markowska-Manista (Eds.), *Childhood and Children's Rights between Research and Activism* (pp. 85–119). Springer VS.
- Medvedev, A. N., Lambiotte, R., & Delvenne, J. C. (2019). The anatomy of Reddit: An overview of academic research. In F. Ghanbarnejad, R. Saha Roy, F. Karimi, J. C. Delvenne, & B. Mitra (Eds.),

*Dynamics on and of complex networks III. Machine Learning and Statistical Physics Approaches* (pp. 183–204). DOOCN 2017. Springer Proceedings in Complexity. Springer.

Roberts, M. E., Stewart, B. M., & Tingley, D. (2019). Stm: An R package for structural topic models. *Journal of Statistical Software*, 91, 1–40.

Scherger, S. (2012). Concepts of generation and their empirical application: From social formations to narratives—a critical appraisal and some suggestions. *CRESC Working Paper Series*, 117.

Sinn, H. W., & Uebelmesser, S. (2003). Pensions and the path to gerontocracy in Germany. *European Journal of Political Economy*, 19(1), 153–158.

Sipocz, D., Freeman, J. D., & Elton, J. (2021). A toxic trend?: Generational conflict and connectivity in Twitter discourse under the #BoomerRemover Hashtag. *The Gerontologist*, 61(2), 166–175.

Tepe, M., & Vanhuysse, P. (2009). Are aging OECD welfare states on the path to gerontocracy?: Evidence from 18 democracies, 1980–2002. *Journal of Public Policy*, 29(1), 1–28.

Voss, P., Bodner, E., & Rothermund, K. (2018). Ageism: The relationship between age stereotypes and age discrimination." In L. Ayalon & C. Tesch-Römer (Eds.), *Contemporary Perspectives on Ageism* (pp. 11–31). International Perspectives on Aging. Vol. 19. Springer

### **Description of the STSM main achievements and planned follow-up activities**

The aim of this STSM was successfully achieved by combining advanced computational communication methods applicable to available press articles and social media data with linguistic research methodology to conduct a qualitative discourse and lexical analysis.

During the present STSM visit, an abstract of our first paper (Hunger & Lewandowska-Tomaszczyk 2025a), dealing with *Generation markers in British news and social media discourses*, has been submitted and accepted for the publication in a thematic Routledge volume. The first draft of the paper has been written focusing on English social media (*Reddit*) data that deal intensively with differences and conflicts between generations. In this study, we look at how generation markers are presented in the media and how generations' position in society is negotiated between individuals in social networks. In doing so, we first look at the topics in which generational conflict is evoked in the media and examine how the *boomer generation* and *generation Z* are portrayed in newspaper discourses. Building on this, we take a closer look at discourses on social media in which individuals express their opinions on the different generations and often blame other age groups for certain situations. We will also assess which social issues and intergenerational conflicts are presented as a problem and analyse the dynamics of these attributions of blame. In order to get to the bottom of the opinions that are expressed, we use linguistic analyses that allow us to examine certain attitudes and commentators' stances more closely. Empirically, we rely on a mixed-methods design that includes both computational approaches and in-depth, linguistic analyses of a qualitative nature. The interplay of these different methodological approaches enables us to analyse the object of investigation, the negotiation of generational conflicts in media and social media, from a wide variety of perspectives.

As another outcome of the present STSM, combined with the ENEOLI COST Action, I gave an online presentation on *Contexts and conditions of the choice between Polish native words and foreign language borrowings (wrt gendered language) in discourse* (Lewandowska-Tomaszczyk, 2025a) on 11 April, 2025, during the General ENEOLI meeting workshop in Budapest on 11 April, 2025, on *Neologisms as political, social and cultural context markers in discourses*.

The second abstract for a presentation concerning generational and age markers in Polish media and social media data has been submitted for the conference of the Polish Association of Linguistics (Lewandowska-Tomaszczyk, 2025b *Opinie na temat wieku i różnic generacyjnych w mediach polskich i angielskich*) and a relevant contrastive paper on English-Polish similarities and differences in this respect (Lewandowska-Tomaszczyk & Hunger, 2025b in preparation) will be submitted to a thematic journal.

The joint research with Sophia Hunger, discussed in the two papers mentioned above, covers insights concerning quantification of the frequency and intensity of age and generational stereotypes expressed in online press and social media. The nature of such stereotypes analysed in our research identifies the specific attributes, behaviours, and values associated with age and generation in online discourse and can contribute to a more informed and nuanced understanding of intergenerational relations in the digital age.

The STSM contributes to the main objectives of the OPINION COST Action, in particular to WG1 and WG2, by stimulating and supporting knowledge exchange between linguists and computer specialists substantiating the main idea that the language we use and produce will be mediated in real time by technology. The interaction between the cognitive, social and cultural biases identified in the language of the social media researched in the project, as well as the application of its results to the monitoring and moderating of posts containing generational stereotypes and age-related opinions, are likely to be effective in identifying dynamics in opinionated online content and formulating more general observations and conclusions in this respect. Overall, this STSM project fulfils the main requirements of COST Actions in terms of cooperative research development with the outcomes to be disseminated and published.

### References

Hunger, S., & Lewandowska-Tomaszczyk, B. (2025a). *Generation markers in British news and social media discourses* (accepted for the publication in a thematic volume). Routledge.

Lewandowska-Tomaszczyk, B. (2025a). *Contexts and conditions of the choice between Polish native words and foreign language borrowings (wrt gendered language)*. Presentation at the General ENEOLI meeting workshop in Budapest on 11 April, 2025, *Neologisms as political, social and cultural context markers in discourses*.

Lewandowska-Tomaszczyk, B. (2025b) *Opinie na temat wieku i różnic generacyjnych w mediach polskich i angielskich*. Presentation submitted to the *Polish Society of Linguistics 100th Jubilee Congress*, September 2025. Cracow.

Lewandowska-Tomaszczyk, B., & Hunger, S. (2025b). A contrastive study of opinionated comments in English and Polish (in preparation).