Seminar dates and topics

Date	Topics	Required reading
3 September 2024	• **Introduction and expectations** • **Foundations of CSS** • **Getting started in R**	
11 September 2024	• Foundations of CSS • The R tidyverse	Lazer, D., & Radford, J. (2017). Data ex Machina: Introduction to Big Data. *Annual Review of Sociology*, 43(1), 19–39. ⬈
18 September 2024 **(Block: 15:30 - 18:45)**	• Research ethics in CSS • Data visualization	Fiesler, C., & Proferes, N. (2018). 'Participant' Perceptions of Twitter Research Ethics. *Social Media + Society*, 4(1). ⬈ Freelon, D. (2018). Computational Research in the Post-API Age. *Political Communication*, 35(4), 665–668. ⬈
2 October 2024	• Social media, web data and web scraping • APIs and web data collection	Tromble, R. (2021). Where Have All the Data Gone? A Critical Reflection on Academic Digital Research in the Post-API Age. Social Media + Society, 7(1). ⬈ RatSWD (2019): Big data in social, behavioural, and economic sciences. *RatSWD Output* 4(6). ⬈
9 October 2024	• Linked surveys and DBD • Web tracking data • Smartphone-based data collection	Guess, A. M., Barberá, P., Munzert, S., & Yang, J. (2021). The consequences of online partisan media. *PNAS*, 118(14). ⬈ Silber, H., et al. Linking Surveys and Digital Trace Data: Insights From two Studies on Determinants of Data Sharing Behaviour. *Journal of the Royal Statistical Society Series A: Statistics in Society*, 185(S2), S387–S407. ⬈"
16 October 2024	• Introduction to automated text analysis • Supervised and unsupervised models • Validation of model results	Schwemmer, C., & Wieczorek, O. (2020). The Methodological Divide of Sociology: Evidence from Two Decades of Journal Publications. *Sociology*, 54(1), 3–21. ⬈ Bonikowski, B., Luo, Y., & Stuhler, O. (2022). Politics as Usual? Measuring Populism, Nationalism, and Authoritarianism in U.S. Presidential Campaigns (1952–2020) with Neural Language Models. *Sociological Methods & Research,* 51(4), 1721–1787. ⬈

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23 October 2024	• Machine learning • Large Language Models	Gilardi, F., Alizadeh, M., & Kubli, M. (2023). ChatGPT outperforms crowd workers for text-annotation tasks. *PNAS*, 120(30). ⧉ Reiss, M. V. (2023). Testing the Reliability of ChatGPT for Text Annotation and Classification: A Cautionary Remark. *arXiv Preprint*. ⧉
30 October 2024	• Data quality and validation in CSS • Network analysis	Sen, I., Flöck, F., Weller, K., Weiß, B., & Wagner, C. (2021). A Total Error Framework for Digital Traces of Human Behavior on Online Platforms. *Public Opinion Quarterly*, 85(S1), 399–422. ⧉ Dahlke, R., Kumar, D., Durumeric, Z., & Hancock, J. T. (2023). Quantifying the Systematic Bias in the Accessibility and Inaccessibility of Web Scraping Content From URL-Logged Web-Browsing Digital Trace Data. *Social Science Computer Review*. ⧉
6 November 2024	• Open science and reproducibility in CSS	Chan, C.- Hong, Schatto-Eckrodt, T., & Gruber, J. (2024). What makes computational communication science (ir)reproducible? *Computational Communication Research*, 6(1). ⧉ Nyhan, B., Settle, J., Thorson, E., Wojcieszak, M., Barberá, P., et al. (2023). Like-minded sources on Facebook are prevalent but not polarizing. *Nature*, 620(7972), 137–144. ⧉
13 November 2024	• Writing reproducible research papers in R • R Markdown, quarto	Bauer, P. C., & Landesvatter, C. (2023). Writing a reproducible paper with RStudio and Quarto. *OSF Preprint*. ⧉
20 November 2024	• Presentations of thesis ideas • Coding: troubleshooting	
27 November 2024	• Presentations of thesis ideas • Coding: troubleshooting	
4 December 2024	• Presentations of thesis ideas • Coding: troubleshooting	