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## [SORS: "Beyond Self-Reports: Validating Exogenous Measures of News Exposure through Political Learning" and "Synthetic Surveys for Population Insights"](#)

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### **Beyond Self-Reports: Validating Exogenous Measures of News Exposure through Political Learning**

**Abstract:** This presentation has a twofold objective. Substantively, we revisit a longstanding question using computational social science tools: Do people learn about politics through news exposure? To overcome the limitations of traditional self-reported exposure measures, we rely on exogenous (i.e., observed) measures of exposure. Methodologically, we validate several exogenous exposure measures that vary in granularity. Using machine learning techniques, we develop exposure metrics ranging from domain-level visits to specific content interactions. We assess these measures through multiple approaches, including their ability to predict political knowledge on an unexpected news event—the 2022 Russian invasion of Ukraine. Our findings highlight the importance of granularity: only visits and time spent on Ukraine-related articles significantly predict event knowledge, whereas broader measures—such as domain-level visits—show no effect when controlling for self-reported exposure and other key predictors.



Short Bio: Ana Sofía Cardena,

Researcher and professor of Political Science at Universitat Oberta de Catalunya (UOC), and close collaborator at the Computational Social Sciences and Humanities Laboratory at BSC.

Her research interests lie in the fields of public opinion, digital and social media, comparative media systems and computational methods. In the past ten years her research has focused on uncovering patterns in online news consumption using web-tracking data on users' browsing behaviour and studying the effects of digital media and online news consumption on attitudes, opinion formation and political behaviour. Her research on these subjects has been published in some of the most relevant scholarly journals in the field (Journal of Computer-Mediated Communication, Political Communication, International Journal of Press/Politics, European Journal of Communication, International Journal of Public Opinion Research).

### **Synthetic Surveys for Population Insights**

**Abstract:** Traditional opinion polling faces growing challenges such as declining response rates. Meanwhile, vast amounts of user-generated text—once seen as purely qualitative—offer untapped potential for understanding public opinion. This talk explores how large language models can transform free-form text into structured, survey-like insights, bridging the gap between qualitative and quantitative analysis. We'll discuss the limitations of classical polling, the promise of AI-driven alternatives, and what this shift means for the future of survey research.



Short Bio: Max Pellert- Researcher at the Computational

Social Sciences and Humanities Laboratory at the BSC.

Max Pellert has a background in computer science, the social sciences, cognitive science and economics (University of Vienna, Austria and University of Ljubljana, Slovenia). He was a doctoral researcher in Computational Social Science affiliated to Complexity Science Hub Vienna and Medical University of Vienna in the WWTF research group “Emotional Well-Being in the Digital Society” led by David Garcia (now University of Konstanz). His research during his PhD focused on analyzing the digital traces of individual and collective emotional behavior and affective expression on social media. After receiving his PhD, he gained industry experience as Assistant Researcher at Sony Computer Science Laboratories Rome. He worked at the Chair for Data Science in the Economic and Social Sciences at University of Mannheim as assistant professor. He was interim Professor for Social and Behavioural Data Science at the University of Konstanz. Currently, he works as a group leader at the Barcelona Supercomputing Center. He is broadly interested in the social sciences and uses traditional and novel computational methods from domains such as Natural Language Processing to study belief updates, emotional decay on social media, polarization, psychometric aspects of large language models, emotional well-being measured from textual data, semantic embeddings as complements to human ratings and many other interesting phenomena.

## Speakers

**Speakers:** Ana Sofía Cardenal, Researcher and professor of Political Science at Universitat Oberta de Catalunya (UOC), and close collaborator at the Computational Social Sciences and Humanities Laboratory at BSC and Max Pellert, Researcher at the Computational Social Sciences and Humanities Laboratory at the BSC.

**Host:** Mercè Crosas, Computational Social Sciences and Humanities Laboratory Director, BSC  
Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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