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Semantic Systems and Visual Tools to Analyze Climate Change Communication

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Abstract

Given the intense attention that environmental topics such as climate change attract in news and social media coverage, key questions are how different stakeholders perceive observable threats and policy options, how public media react to new scientific insights, and how journalists present climate science knowledge to the public.

This presentation will demonstrate the Web intelligence platform [1] to address these questions, including knowledge extraction and visualization techniques to explore the lexical and geospatial context of online coverage. The examples stem from the Media Watch on Climate Change [2], the Climate Resilience Toolkit [3] and the NOAA Media Watch the three applications that aggregate environmental resources from a wide range of online sources. These systems not only show the value of providing comprehensive information to the public, but also have helped to develop novel communication success metrics beyond bipolar assessments of sentiment.

[1] www.weblyzard.com

[2] www.ecoresearch.net/climate

[3] toolkit.climate.gov

Short Bio

Arno Scharl heads the Department of New Media Technology at MODUL University Vienna (www.modul.ac.at/nmt), and is the managing director of webLyzard technology (www.weblyzard.com). Prior to his current appointments, he held professorships at the University of Western Australia and Graz University of Technology, and was a Visiting Fellow at Curtin University of Technology and the University of California at Berkeley. Prof. Scharl completed his doctoral research and habilitation at the Vienna University of Economics and Business. Additionally, he holds a PhD from the University of Vienna, Department of Sports Physiology. He has authored more than 160 refereed publications and edited two books in Springer 's Advanced Information and Knowledge Processing Series. Currently, he serves as the Scientific Coordinator of the DecarboNet (www.decarbonet.eu) and uComp (www.ucomp.eu) research projects. His research interests focus on Web intelligence and big data analytics, human-computer interaction, and the integration of semantic and geospatial Web technology.