

How to Visualize and Communicate Challenges in Climate and Environmental Sciences?

Details

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Session	Patterns, Visualization, and Stochastic Processes in Geophysics II Posters
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Abstract

The challenges of climate and environmental sciences need a renewed dialogue with a large spectrum of stakeholders, ranging from the general publics to specialists. This requires a better use of sophisticated visualization techniques to both forward the information and to follow the corresponding flow of information. A particular case of interest is the question of resilience to extreme weather events that also relies on increasing awareness of urban communities. This research looks at the development of exploration techniques of unstructured Big Data. Indeed access to information on environmental and climate sciences has hugely increased in terms of variety and quantity, as a consequence of different factors, among others the development of public relations by research institutes and the pervasive role of digital media (Bucchi 2013; Trench 2008). We are left with unthinkable amounts of information from blogs, social networks postings, public speeches, press releases, articles, etc. It is possible now to explore and visualize patterns followed by digital information with the support of automated analysis tools. On the other hand these techniques can provide important insights on how different techniques of visual communication can impact on urban resilience to extreme weather. The selected case studies correspond to several research projects under the umbrella of the Chair “Hydrology for resilient cities” aimed to develop and test new solutions in urban hydrology that will contribute to the resilience of our cities to extreme weather. These research projects – ranging from regional projects (e.g. RadX@IdF), European projects (e.g. Blue Green Dream and RainGain), to worldwide collaborations (e.g. TOMACS) – include awareness raising and capacity building activities aimed to foster cooperation between scientists, professionals, and beneficiaries. This presentation will explore how visualization techniques can be used in the above mentioned projects in order to support outreach activities as well as to illustrate the impact of digital communication on urban resilience.

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