Expert Crowdsourcing for Semantic Annotation of Extreme Meteorological and Hydrological Phenomena

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This paper addresses the research approach for exploring the use of crowdsourcing in the annotation of atmospheric phenomena. The ultimate goal is to fill the gap of current algorithms that often fail to identify and track extreme meteorological and hydrological events over consecutive occurrences, due to the characteristics and the resolution of the data. Expert crowdsourcing is a possible solution for this problem as for scientists, separating consecutive occurrences of phenomena is a relative simple task. To develop a proof of concept and explore this hypothesis, we establish a research roadmap. Following an exploratory methodology, we aim to address a set of research questions that will allow the validation and generalization of an hybrid approach, combining automated methods and human computation.