

Linguistic Descriptions for Automatic Generation of Textual Short-Term Weather Forecasts on Real Prediction Data

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Abstract We present GALiWeather, an application which automatically generates textual short-term weather forecasts for every municipality in Galicia (NW Spain), using the real data provided by the Galician Meteorology Agency (MeteoGalicia). This solution combines in an innovative way computing with perceptions techniques and strategies for linguistic description of data together with a natural language generation (NLG) system. The application extracts relevant information from weather forecast input data and encodes it into intermediate descriptions using linguistic variables and temporal references. These descriptions are later translated into natural language texts by the natural language generation system. The obtained forecast results have been thoroughly validated by an expert meteorologist from MeteoGalicia using a quality assessment methodology which covers two key dimensions of a text: the accuracy of its content and the correctness of its form. Following this validation GALiWeather will be released as a real service offering custom forecasts for a wide public.

Palabras clave linguistic descriptions of data, natural language generation, computing with perceptions, open data

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PROXECTOS DE INVESTIGACIÓN

LDCP: Descrición lingüística de fenómenos complexos: cuantificadores borrosos xeralizados en proposicións temporais