



## **Interpretation and Use of Online Weather Forecasts in Everyday Decision-Making**

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Different people in different occupations depend on weather forecasts to plan their work and recreational schedules. People with no expertise in meteorology frequently interpret weather forecasts and uncertainty information. These non-experts apply their prior knowledge and experiences in a variety of fields to synthesize different types of information to interpret forecasts. In this PhD study, situations of typical users were simulated when examining how different user groups interpret, integrate, and use information from an online weather report ([www.Yr.no](http://www.Yr.no)) in their everyday decision-making. First, qualitative interviews of twenty-one Norwegians (farmers, exterior painters, tour guides, teachers and students) were conducted. Second, sixteen students participated in an eye-tracking study.

The study found that nuances such as color and the number of drops were important in the interpretations of the weather symbols and forecast uncertainty, which were sometimes interpreted differently than intended by the forecast provider. Prior knowledge and the integration of information from different representations affected the participants' interpretations. The decision-making process influenced the selections of representations in different situations; their selection was dependent on the importance of the envisaged activity and the weather conditions for the day. Additionally, in situations in which the participants had a lack of experiences, this lack provides a possible explanation for why part of the information was occasionally not understood and used.

Some implications of the findings for communication and future research will be discussed in the presentation. For example, it appears that some users should be supported to facilitate the interpretation and use of information in situations where they lack experiences. One possibility to support persons that lack experiences and have low situation awareness might be to provide consequences and impacts of forecast weather.

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**Thursday, 8 June 2017, 3:30 PM**  
Refreshments 3:15 PM  
NCAR-Foothills Laboratory  
3450 Mitchell Lane  
**(Location Change) Bldg. 2, Room 1001**