MMM SEMINAR SERIES

Communicating Weather Risk to End Users: A Cognitive Perspective

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How do everyday users understand weather forecast information? What is the best way to provide them with information that is relevant to critical decisions but not confusing? This talk will describe a psychological research program that investigates each of these questions using a cognitive-experimental approach. We show, in a series of experimental studies that including numeric uncertainty estimates (30% chance) in weather forecasts leads to better decisions and increases trust in the forecast when compared to deterministic forecasts. Surprisingly comprehending probabilistic expressions does not depend on the user's level of education. However, understanding depends critically on how uncertainty is expressed. Communication formats that take into account users' decision goals are much better understood than those that ignore the user's perspective. In addition some typical misunderstandings will be discussed, particularly those that occur when visualizations are used. Finally we will describe the evidence suggesting that forecast consistency may not be as important as was once thought. In sum, this line of research suggests that people can attain a "working understanding" of fairly complex and updating information as long as it is communicated in a way that is compatible with how people think about the issues.

Thursday, 3rd October 2019, 3:30pm

Refreshments 3:15pm

NCAR-Foothills Laboratory, 3450 Mitchell Lane, FL2-1022, Large Auditorium

This seminar will be webcast live at:
http://ucarconnect.ucar.edu/live

Recorded seminar link can be viewed here:
https://www.mmm.ucar.edu/events/seminars