



INFORMATICS COLLOQUIUM

Speaker:

Prof. Anna Wilbik, Department of Advanced Computing Sciences of Maastricht University, Netherlands

The explainability challenge in descriptive analytics: do we understand the data?**Abstract:**

The exponential growth creates a data flood that is hard to handle by decision makers. In many domains, humans are collaborating with machines for decision making purposes to cope with the resulting data complexity and size. This collaboration can be realized through machine learning, visual analytics, or online analytical processing, where a machine is just a tool – but often used to take important decisions. The question now is: do we really understand the data using the tool this way?

Data analysis methods use numbers, figures, or mathematical equations to show data, decision recommendations and patterns. Yet for a human, the natural way of communication is natural language: words, not numbers or figures. This causes a gap between the meaning of data and human understanding. The challenge is: How to make data more understandable for humans? Fuzzy techniques, or the application of the computing with words paradigm has the potential to close the gap by using natural language as the communication means. In this talk I focus on descriptive analytics and show with a set of examples how fuzzy techniques can provide better insight of data to the user. I pay special attention to the technique of linguistic summaries. I will discuss the status quo of this technique, as well as new opportunities lying ahead.

Bio:

Anna Wilbik is currently Professor in Data Fusion and Intelligent Interaction in the Department of Advanced Computing Sciences of Maastricht University, in the Netherlands. Currently she is also a chair of The Fuzzy Systems Technical Committee (FSTC) within IEEE CIS.

Anna Wilbik received her PhD Systems Research Institute, Polish Academy of Science, Warsaw, Poland, in 2010. In 2011, she was a Post-doctoral Fellow at University of Missouri, Columbia, USA. From 2013 till 2020 she was at Eindhoven University of Technology (TU/e).

Her research interests are in business intelligence, especially focused on linguistic summaries and computing with words. With her research she tries to bridge the gap between the meaning of data and human understanding in complex application environments, where data can be of various natures. She makes this connection in research projects collaborating with industry both on the national and the European level.

Date and time: Tuesday November 7th, 2023, 11:00 am
Location: Pérolles 21, room B130, Bd de Pérolles 90, Fribourg
Contact person: Prof. Edy Portmann

The colloquium is free and open to the public.