23rd IIF Workshop: Predictive Analytics and Forecasting. Research and Applications

The 23rd IF Workshop on Predictive Analytics and Forecasting – Research & applications took place in Munich, Germany on September 14-15, 2017. The workshop was organized jointly by the IIF and the German Operations Research Society (GOR) and Siemens, Corporate Technology. 32 participants, including speakers attended the event, with approximately 40% of them from business and industry. This proved to be an excellent achievement in bridging the worlds of Academia and Practitioner.

The original topic and title of the IIF workshop was on *Predictive Analytics and Forecasting for Industry 4.0*, one of the leading themes of digitising supply chains pioneered in Germany and now "adopted" in many other countries. However, due limitations in research and work, in both academic and business areas, on this topic, the scientific committee extended the topic to all industrial sectors and economy.

All papers and presentations are available on the workshop's website.

The final round table, chaired by Sven Crone, was essential in finding the appropriate conclusions that could be derived from the different presentations. The Chair stimulated the debate by challenging each author to explain how their paper was related to the workshop theme on forecasting and industry 4.0.

The ensuing debate was of great interest, as each author showed how their results were of key relevance in addressing the workshop's topic.

Instead of having a series of presentations focussing on industry 4.0, with descriptive details of specific industry 4.0 value chains and case studies, the papers focussed on specific methodological challenges emerging from the industry 4.0 theme as they covered a wealth of different industries and examples.

Some papers focussed on forecasting techniques, others on predicting popularity on social media about many brands in industry, or forecasting complex systems. One key theme was that industry 4.0 dematerialises existing value chains loosening the network of interactions, through the presence of ICT platforms. One of the key challenges then becomes "how to focus on small network interaction within a big data framework" as such a framework is required by the large data availability produced by these ICT platform based small network interactions.

The panelists agreed to seek such testbed-datasets to reconvene for a similar workshop under the auspices of Siemens in the near future, in order to develop a more meaningful dialogue between research and practice for Industry 4.0 within the IIF.

Forecasting in Industry 4.0 – How can your research contribute now? … in the future?
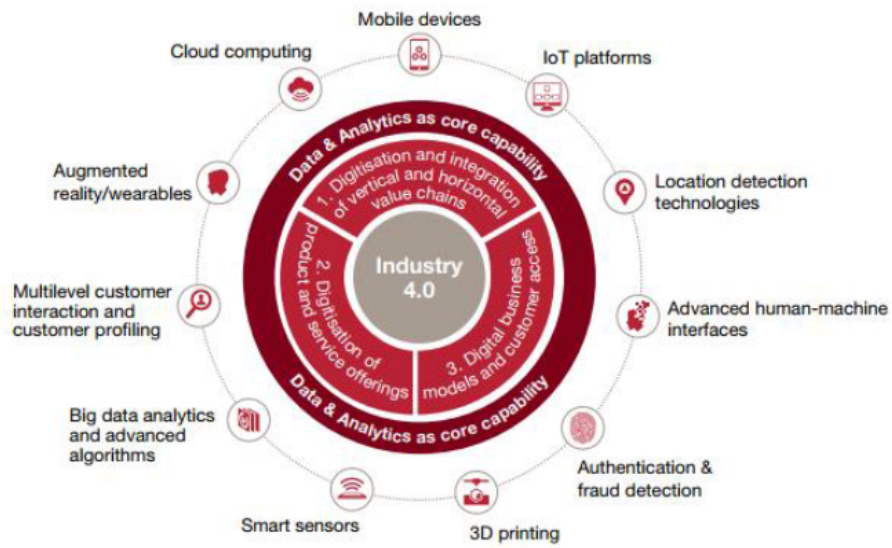
Source: Sven Crone, Lancaster University. Used for the Panel Discussion