

Digital shopping consultants and more – What process mining can do



Digitalization has caused fundamental changes in many sectors and brought innumerable new businesses and business ideas to the market, but it has also created uncertainty in some established companies. At WU's Institute for Information Business, Jan Mendling and his team are working on new ways to understand and depict available data to make the underlying processes visible. Their new project in the clothing retail sector has shown how major the changes resulting from the increasing use of radio-frequency identification (RFID) technology can be: More accurate inventory keeping, information on the exact location of items on the sales floor, faster check-out procedures, and digital shopping consultants in the changing rooms could be the future of retail.

As part of the EU research project Seramis, Jan Mendling is investigating how the use of RFID labels on garments could support various processes in the clothing retail sector. "To get the most out of new data mining technology, it is crucial to understand the data obtained and to make the underlying processes visible," explains WU Professor Jan Mendling. "In the fashion retail sector, this makes it possible to attain transparency for processes that have previously been difficult to keep track of." Processing and visualizing this information can help improve procedures like inventory management, check-out, and theft prevention.

Digital consultants, faster check-out

In addition to process visualization based on data, Jan Mendling and his team have developed completely new digital processes in their work at WU, for example methods of locating mislaid articles or tracking the movements of individual garments through the store. He and his colleagues at the Institute for Information Business have created software tools to support these scenarios with data analyses. Possible future developments include digital shopping consultants in the changing room: RFID tags can identify the items being tried on, and especially the large department store chains could install digital screens in the changing rooms that would suggest matching pieces or accessories to go with the selected clothes and assist customers with their purchasing decisions.

Hidden potential

"The advantages of digitalizing business processes include improved tracking options, faster processing, and new opportunities for analysis," explains Professor Mendling. "In cooperation with international partners, the Institute for Information Business is investigating new approaches in the field of process mining, which uses event data to analyze business processes. Many companies already employ a Chief Digitalization Officer to coordinate the various digitalization projects, but a large number of analysis options have only been implemented in individual projects until now."

More data, but also uncertainty

In cooperation with Ayelt Komus from the Koblenz University of Applied Sciences and Andreas Gadatsch from the Bonn-Rhein-Sieg University of Applied Sciences, Jan Mendling has been conducting a study called BPM Compass, investigating how to ensure the success of business process management and assessing the predominant process management goals and success factors in companies in a variety of sectors. The BPM Compass survey, carried out with practitioners from the fields of process and IT management, has already shown that in many companies, the wide variety of opportunities offered by process digitalization are not being used to their full extent. Over 80% of the experts surveyed see digitalization as an important factor in their company's business model, but only one out of four is satisfied with the level of digital transformation in their company. The researchers

at WU's Institute for Information Business are working on how to improve the visualization of digital processes and uncover new potential for a wide variety of different business sectors.

Contact:

Anna Maria Schwendinger

PR Manager

Tel.: + 43-1-31336 ext. 5478

Email: anna.schwendinger@wu.ac.at