Developing a digital platform for the laundry industry

By **Otis Robinson** 25 November 2019

Otis Robinson speaks with Igor Kogut, deputy division manager of the R&D team at Hohenstein, about IntWash, a new project that aims to digitalise the laundry industry.

The Hohenstein team attended a conference in Silicon Valley to evaluate opportunities and challenges in new digital technologies for laundry

The laundry industry is a vastly essential yet gravely underestimated sector. It's often perceived as a simple service sector for individual end-users to wash their garments in local laundrettes, but the laundry industry is also a notable part of industrial processes too.

For the textile industry, the laundry process is key to the value chain because of its use in product development (pre-treatment and finishing processes) but also because, as digitalisation gains traction, garments or materials that pass through industrial laundry must be digitalised for new industry trends such as traceability initiatives and technologies such as blockchain or RFID, meaning the sector is fast changing.

Additionally, evolving chemical restrictions, energy regulations and safety standards within the global textile industry doubly affect those within the industrial and standard laundry sectors, especially with environmental consideration rising in demand. In summary, the laundry industry may need to keep up with growing digitalisation trends, government regulations and rising interest in going green.

Therefore Igor Kogut, deputy division manager of research and development (R&D) at Hohenstein, along with his co-workers, is developing an internet platform that bundles relevant content consisting of webcasts, presentations, journal articles, press releases and popular immersive technologies such as virtual reality (VR), all designed for training, education and networking in the field of digitalisation. Kogut says this platform is part of a vision to create an open-source digital space for laundry businesses and suppliers to view information on and monitor the digital transformation of their business.

"This platform should serve as a starting point for compiling information on digitalisation and encourage discussions and networking in the laundry industry regarding this important topic. Our vision is that one day this platform will serve as the digital guidelines for the transformation and improvement of laundry processes and their suppliers along the textile value chain," says Kogut.

DIGITALISING LAUNDRY KNOWLEDGE

The platform – which is known to the researchers as IntWash but will likely be accessible under the name Future of Laundries upon launch – runs parallel to other Hohenstein projects that orbit digitalisation: at the institute, where the project was first conceived, researchers began exploring the "synergies between digital transformation and sustainability along the textile value chain". Examples of this work include a project utilising digitally enabled technologies like sensor arrays, coupled with artificial intelligence (AI) concepts, for predicting the composition of wastewater in laundries.

According to Kogut, who has worked for Hohenstein for five years, such research projects were born from the group's observations of industry changes: environmentalism, new regulations and growing digitalisation. As such, the development of IntWash has a succinct and refined goal to 'evaluate the opportunities and challenges' in digitally transforming the laundry business sector. Kogut adds: "This obviously includes the establishing of smart laundry processes."

Scheduled to be launched at the beginning of 2020, the platform – which will consist of "ready-to-use technology [like] VR" – can be used to 'inform oneself' about the ongoing digitalisation of the laundry industry. Kogut highlights the four ways IntWash will tackle 'big issues' for businesses in the long-term. IntWash will enable: the continuous streaming of information on opportunities and challenges in digital transformation; the use of augmented reality (AR) and VR for the laundry business to encourage industry development of modern training tools; the monitoring, control and optimisation of processes; and finally, the acquisition, storage and evaluation of data.

But why? Kogut elaborates that digital transformation might present an opportunity to effectively solve a lot of issues the laundry industry faces: "To stay successful and competitive, highly efficient production processes with consistent quality need to be established. This is not an easy task, especially as the laundry business faces a tremendous skills shortage. Especially in Europe, where the number of skilled laundry employees decrease[s] dramatically."

DIGITAL TRANSFORMATION

Efforts to increase the skilled labour in this sector are evidenced throughout the laundry industry. As laundry digitalisation has begun to increase, customers have seen the use of Internet of Things (IoT) technologies to simplify their experiences. Examples include smart washing machines that automate load sizes and detergent measurements. Elsewhere, smart meters can monitor, gather and visualise performance data regarding the washing process.

These technologies can help businesses reduce energy and water usage while adding automation to analogue processes, and additionally increasing the demand for skilled labour. The popularity of such digital transformations is reflected in statistics: these technologies are “driving the growth of the global dry-cleaning and laundry service market at a CAGR of more than 4%” for the forecast period of 2019-2023, according to MarketWatch.

“The laundry business has significant revenue growth,” says Kogut, before highlighting the allure of digitalisation. “I have a feeling that a lot of laundry companies want to revamp their image to show customers what great services they offer and that these services have value.”

Additionally, Kogut explains that digitalisation can connect knowledge from around the globe: “Digital transformation could [also] be an opportunity to […] establish more effective collaboration and dialogue between different research entities, suppliers of laundry business and the network of laundry companies all over the world,” he says.

“The laundry business can present itself as an industry which uses tremendously important, high-quality processes which are valuable for customers and the average person.”

HOPES

As such, Kogut and his team hope to enlighten the industry to digitalised laundry processes using their platform. Using technologies such as VR for training and the internet for information, the IntWash platform will also be used for networking, while other services ‘will be available soon’. Kogut elaborates that the ‘different services’ on the horizon include the ability to download Hohenstein-developed scenarios for VR training and the use of AI to predict process parameters like surfactant concentration and thus ‘optimise the online monitoring of such parameters in the process’.

To gain market feedback before launch in 2020, the IntWash team recently attended a conference in Silicon Valley to discuss if its approach to laundry digitalisation is also suitable for industrial laundries on an international scale. Subsequently, the team learned that laundry business sectors across the globe have ‘similarities, but also strong differences.’

“For example, the US market differs from the European one because of labour costs and environmental issues [such as] energy consumption,” says Kogut. “Furthermore, legal issues regarding data protection and ownership are also not comparable between both markets.

“But often, the US market is driven by the ‘innovation spirit’ – typical for areas including Silicon Valley – and this market is more ready to try something new. As a result, we will offer both information that suits the international laundry business, but also information [that] is tailored for different markets, even though it will be a challenging task.”

Overall, Kogut is sure the IntWash platform will prove invaluable: “We cannot force the laundry business to use our internet platform and the content we will frequently update, but what we will do is inform the industry about our goals and benefits for them. We will debate with the worldwide laundry business and gather feedback on how we can do better. If industrial laundries use our content and improve their processes by making some smarter, that would be a great success.”

He adds that additional support will come from the Hohenstein team: “Keep in mind that we have a long-term vision – we will create the internet platform as the beginning of [the digital transformation process], but we need to stay in discussion with the laundries and their suppliers to implement the targeted changes along the textile value chain.”

Kogut concludes that the platform will be beneficial to the entire textile industry, regardless of the sector they are in: “In the long-term, we want to extend the relevance of the IntWash platform to the entire textile value chain.”

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