2018 Strategic Technology & Innovation Management Programme

Wearable technologies as smart learning enablers to bridge the skill gap

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Industrial / managerial need addressed

Lack of skills is a major challenge for industry. A recent survey by the German Chambers of Commerce and Industry ranked skills as the top challenge of industry, even ahead of digitalisation. In the United Kingdom, developing skills has been highlighted as a key item of the UK's industrial strategy. Wearable technologies (e.g., AR/VR, smart gloves, etc.) promise new and potentially effective solutions to help bridge the skill gap, ranging from basic training to highly specialised manual skills. Many companies are already testing some wearable technologies, however there is a substantial lack of rigorous research that is experimentally assessing the true performance effects of wearable technologies on human work in specific industrial applications. The aim of this project is to help companies to address this gap.

Expected deliverables

The practical deliverable for companies participating in this pilot study will be evidence-based insights into how wearable technologies can measurably improve skills for a specific industrial application.

Engagement opportunities

STIM companies, which are strongly interested in wearable technologies or already using some, can engage with this project by conducting experiments with us. We are strongly interested in industrial settings ("on the job") requiring any form of human work that either has a particularly high value-add (e.g., specialised manual movements requiring rare or sophisticated skills), or takes place at large scale (e.g., work carried out by many workers and/or very frequently).

Approach

The team will work with STIM companies to identify a specific industrial application, wearable technology, and experimental setting suitable for this project. We will then carry out experiments to test how wearable technologies improve human skills.

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