

COLLABORATING WITH BUSINESS

by academics in Arts, Humanities and Social Sciences

Swapping sociology for steel-toe boots

Dr Faye Wade donned a hard hat and high-vis jacket to help the construction industry utilise new technologies to avoid costly mistakes.

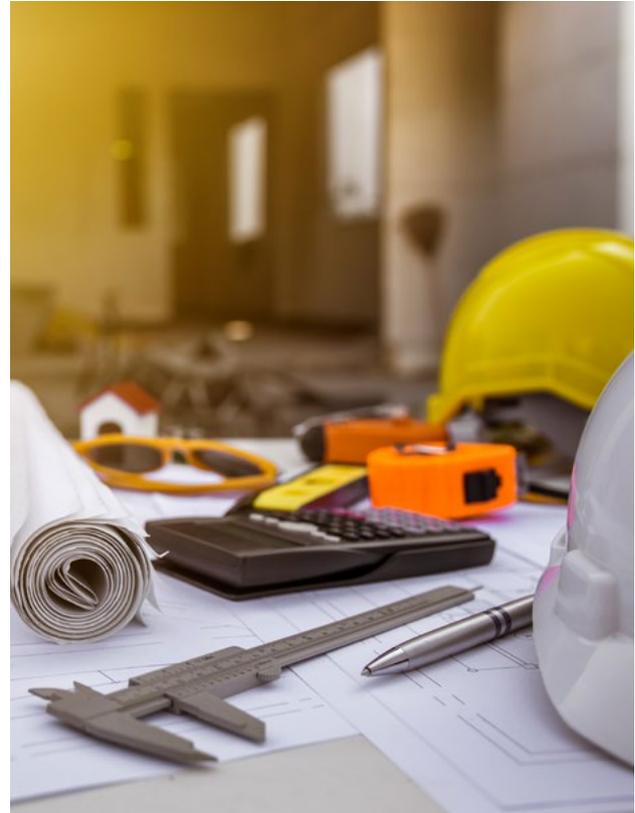
Sharing jokes with construction workers over fish and chips at a sewage works on the west coast of Scotland is not Dr Faye Wade's typical working day. But she says her research with one of the UK's largest construction companies, Galliford Try, has been a springboard for her career.

Faye is a member of Construction Edinburgh, a network set up by the University of Edinburgh to help the industry connect with relevant academics to address challenges in the sector. During one of the network's Academic Industry Meeting (AIM) Days, Galliford Try's Director of Research & Development, Jon De Souza discussed the company's commitment to the digitisation of paper-based processes.

"How people in construction interact with technology is one of my areas of interest. Among the various issues Jon highlighted, the challenge of introducing new document management systems struck a chord with me", Faye explains.

Many multi-million-pound construction projects still rely on paper documentation. The potential for costly mistakes is enormous.

"Building a new road or housing development involves a lot of partners and a complex supply chain. Sub-contractors may only be on site for a short time", notes Faye. "There are regulatory and governance requirements to document



and sign-off each stage of a project. It is also essential to ensure all companies involved agree on what has been done, by whom and when. Everything from the names of the contractors, to the specific concrete mix used, must be written down, to ensure health and safety compliance and the correct allocation of liabilities. If something goes wrong down the line, someone is injured, or a structure needs repairs, there could be possible prosecutions or major costs. Compliance creates a huge volume of physical paperwork."

Faye saw an opportunity to apply experience from her previous research with construction professionals delivering domestic energy technologies in a different context. She worked with the **Knowledge Exchange and Impact team** to secure external funding to take the project forward. However, Faye still had to find the time to carry out the programme of fieldwork, observations, and interviews required. "Being on-site was critical to the success of the project, but it was still a commitment I had to juggle



with research and teaching”, she says. “The Knowledge Exchange team was very supportive and helped secure a secondment release to give me the additional time I needed.”

Faye and colleague Dr Thoko Kamwendo spent eight weeks meeting workers from the company’s different divisions. They visited a sewage works project on the west coast of Scotland and a road expansion in the north of England. As well as the opportunity to don high-vis jackets, they gained valuable insights about human interaction with technology. “Introducing new systems at such scale will always come up against some resistance. We met very conscientious people on site who saw the real need for the technology but weren’t getting the right messages from the top”, Faye recalls. “Some told us their line manager was resistant to the change. Others said software was being introduced too late on certain projects, leading to wasted time and duplication of efforts.”

Faye produced a comprehensive review of the technology’s roll-out. Her recommendations included the importance of clear and consistent messaging across the organisation, and the need to allocate full-time document controllers to manage the digital records on significant projects. The construction giant’s management has been very receptive to the work which they say ‘gives great ammunition’ in supporting meaningful change throughout the organisation.

“Working with Galliford Try has given me a huge confidence boost. It shows me my research can have real value to practitioners, even at this early stage in my career”, Faye reflects. “Successfully leading a small-scale collaboration gives me the legitimacy to pursue funding for larger projects.”

Faye also gained valuable work experience, should she ever decide to wear a hard-hat full-time. “Some scepticism greeted us on site, but construction is also an industry built on huge amounts of rapport and fun”, she says. “The ability to laugh and be silly at times helps to get the difficult work done.”



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