How the construction sector’s first philosopher in residence pioneered a new approach to skills development.

An interdisciplinary industry partnership helped philosopher, Mark Addis redefine the construction industry’s understanding of expertise. It also set his career in a new direction.

What can the construction sector learn from philosophy? More than you might assume, argues philosopher Mark Addis. During the past decade, Mark and David Boyd, Professor of Construction at Birmingham City University’s pioneering research has fundamentally changed how construction companies think about expertise and skills development.

Mark is an expert in the philosophy of expertise, an area of research which considers how people gain and use knowledge and skills to make decisions. “Philosophy explores how the way we think about the world and what we can know underpins the way we act and make decisions in everyday life”, he explains.

“However, theory on the nature of knowledge is often very distant from the practice of how we use knowledge in the real world.”

Keen to close this gap between theory and practice, in the early 2000s, Mark began studying how people in vocational professions acquire and use expertise at work. “Philosophers often think in terms of ‘know-what’; facts, rather than ‘know-how’; the practical knowledge of how to accomplish things. In my work with David, I wanted to turn this on its head to look at what people do at work to apply their expertise to achieve goals, in reality”, Mark reflects. “Take plastering a room, for example. If you take a ‘know-what’ perspective, you could say it sounds trivial. Mix plaster powder with some water and apply it to the wall. In reality, to complete this task well requires substantial ‘know-how’ such as what thickness the mix should be and judgement as to the best way to apply it, given the size and shape of the room and the conditions in the environment.”

In 2008, Mark and David secured funding from the UK’s Arts, Humanities and Research
Council for a Knowledge Transfer Partnership with three of the country’s major construction companies, Mouchel, Rider Levett Bucknall and Thomas Vale Construction.

During the following year, the researchers held meetings and conducted interviews with construction professionals at all levels of these organisations to understand how expertise influenced working practices. “We found a significant gap between what people said they did, and how they thought about their expertise and what they do”, notes Mark, who became the companies’ philosopher in residence. “The majority of people we spoke to under reported their skill levels or found it difficult to articulate the expertise they use on a day to day basis to accomplish tasks. Site managers, for example, could confidently explain the policies and practices they follow to keep things running smoothly, on time and reported correctly. Nonetheless, they found it much more difficult to express the wealth of tacit knowledge they have acquired to know how to deal with things when they go wrong.”

The research helped the construction companies identify new ways to assess and develop training programmes to enhance employees’ less tangible expertise, such as problem-solving and interpersonal skills. Mark and David’s work led to subsequent projects with the Chartered Institute of Building, the National Federation of Builders and construction firm Willmott Dixon, which have continued to shape the industry’s approach to training and skills development during the past ten years.

The experience created unexpected opportunities for Mark. “Industry engagement has given my career in a change in orientation”, he says. “It provided me with the credibility and essential industry relationship management experience I’ve used to develop my career, running enterprise partnerships and knowledge exchange projects.”

Now a senior manager in research and enterprise, Mark regularly advises fellow researchers taking their first steps working with industry. “My advice is always the same,” he explains. “You must go into an industry setting with an open mind. Be humble, friendly and respect the fact busy people are giving you the privilege of their time and experience. They know things you don’t and can give you access to data and insights you will not find in academia. But you have to give them something back. Whether that’s a fresh perspective or a solution to their challenges, these engagements only work when all parties benefit.”

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