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Digital Skills

Technology is progressing at a faster rate than ever before and our society needs to keep up with it. At the P&SC meeting on the 7th February, we heard from four expert speakers about the need to improve digital skills in the UK workforce. Dr Graham Herries, Engineering Director, IET, working in Industry 4.0 and Digital Transformation and visiting Professor at the Royal Academy of Engineering, outlined broadly what we mean by digital skills. Yvonne Baker OBE, Chief Executive of STEM Learning, spoke to us about the Institution of Engineering and Technology (IET) survey's findings and how it links to educational needs. Prof. Rab Scott, Head of Digital at University of Sheffield's Advanced Manufacturing Research Centre, spoke to us about how we bring technology into the curriculum effectively. Lastly, Prof. Tim Dafforn, Professor of Biotechnology at the University of Birmingham, spoke broadly about how companies can integrate digital skills education into their training. We had an engaging Q&A session, with many questions focusing on what digital skills are needed the most and how we can measure the success of a training programme.

The term 'digital skills' is a vague one, mainly because it has to cover a broad set of abilities. Our speakers encouraged people to think of it more like a level of digital literacy; it's not about everyone learning how to code for example, but rather their ability to properly understand the uses and limitations of whatever technology they're using. Dr Herries outlined how this literacy will be crucial as powerful new technology becomes available. For example, look at ChatGPT, an incredibly powerful programme with uses in information gathering. However, it's unable to distinguish between accurate information and misinformation on the internet currently, which outlines its current limitations.

The UK is lagging behind competitors with regards to levels of digital competency. The IET's survey

found that 54% of employers report insufficient digital skills in their workforce, with 47% saying this results in a gap in their workforce. Both Ms Baker and Prof. Scott argued that we need to look at ingraining digital skills more into the whole school curriculum. Instead of such skills only being taught in computer science classes we should look at how digital technology and methods can be used to carry out tasks in every subject. For example, setting a coding task to analyse data in geography, or using new AI technology to help with inspiration in art classes.

All our speakers emphasised how improving digital skills cannot stop at 18 years-old, however. The UK needs more effective training programmes for those in work and those who wish to return to work. Part of improving this is through educating the employers. Prof. Scott and Prof. Dafforn explained how many employers don't understand what technology is out there and what skills are needed by their workforce to improve productively. Prof. Dafforn also outlined that when many companies do provide training programmes for employees this is often internal, but the level of technological progress means the companies are going to need to start looking outward if they wish to keep up with international competitors. Another key factor in providing adequate training is funding. The UK's gross expenditure on employee training continues to lag behind other developed nations. One solution the IET has proposed is reforming the Apprenticeship Levy so that employers can spend leftover funds on training employees on key skills.

Digital skills will only become more vital for an effective workforce, and so specific policies are needed to make sure the UK keeps up with competitors

*Alfie Hoar
P&SC Discussion Meeting, 'Digital Skills'
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