**Title:** **E-Portfolios for Engineering Professionalism and Career Development**

**Presenter:** **Wendy Fowles-Sweet and Oliver Haslam**
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## Session Learning Outcomes

By the end of this session, delegates will be able to:

- Explore how technology enables combining academic and professional skills, encouraging reflection on personal behaviours, the importance of lifelong learning and facilitation of career planning
- Discuss industry's involvement – from UK-SPEC to Degree Apprenticeships, the need for employees to comprehend, evaluate and reflect, and operate in the engineering sector
- Discover students' reactions to the career-facing assessment and the use of the e-portfolio to enhance their learning and development.

## Session Outline

It is often claimed that engineering graduates entering the workforce lack required professionalism skills – as defined by the UK-SPEC for Engineers (Engineering Council, 2013).

UWE considers Professional Development as very important. Work underway in the Department of Engineering Design and Mathematics (EDM) for is designed to help students develop professionalism, a key best practice identifier as EDM moves towards practice-based learning. Students are encouraged to see themselves as "Student Engineers" who are "practising professionals" from the moment they start their degrees. The focus is on innovation to aid understanding of Professionalism - particularly for full time students with minimal or no previous work experience.

This session considers the:
Perception that graduates find it hard to "sell" themselves to potential employers, unable to articulate and demonstrate their skills to gain employers' attention.
Use of the technology medium to support students' developing professionalism: e-portfolios at Masters level
Creating an e-portfolio for all full time undergraduate students, to clarify their studies support their long term professionalism

The e-portfolios under discussion in this session are both established – used by Masters' students to produce Chartered Engineer-ready evidence, and new – core to Master and

Undergraduate Degree Apprenticeship learning, the latter having benefitted from the experiences of the former.

Using e-portfolios in various professional modules encourages engagement with professional development when aligned with assessments - gaining a wider appreciation of societal issues (Lawlor, 2016). The reflective portfolio approach balances opportunities for and recognition of professional development by students – whether postgraduate, undergraduate, or those on degree apprenticeship pathways.

Students recognise a flexible e-portfolio approach enables long-term reflection about their work / life balance. Employers find employees are more aware of both their technical learning and their wider obligations as professionals within society. Students confirm the benefits of the e-portfolios, with many continuing to use them long after graduation.


## Session Activities and Approximate Timings

The session will be a presentation in two parts, followed by a workshop to consider development potential:
o        Presentation
o        Reasons for using e-portfolios – 10 minutes (WFS)
o        Content of e-portfolio and its relevance to students' academic learning and professionalism – 10 minutes (OH)
o        Workshop – 20 minutes
o        Portfolio content: use in own context
o        Collaboration between participants/institutions for further development
o        Brief reflection on activity – 5 minutes

There will be opportunity for questions and answers about both aspects of the presentation: this is a developing activity - ideas and comments are welcome. PebblePad will be demonstrated, and ideas on how the portfolio could be developed further will be strongly encouraged.

In addition, the presenters are happy to explain how participants can get engaged and to collaborate if requested; also to discuss others' best practice in similar activities.


## References

•        UK Engineering Council (2013) UK-SPEC UK Standard for Professional Engineering competence, 3rd Edition
https://www.engc.org.uk/engcdocuments/internet/Website/UK-SPEC%20third%20edition%20(1).pdf [Accessed 15th May 2019]
•        Ed: Lawlor, R. (2016) Engineering in Society, Royal Academy of Engineering
https://www.raeng.org.uk/publications/reports/engineering-in-society [Accessed 15th May 2019]