

WSI Academic Advisory Board Meeting,
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The Principles of End User Optimisation and Software Systems Design for Students and Staff

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Notes

Over the past decade, I have led a small innovations team at UHS in a radical rethink of interactive data visualisation of complex data sets, including electronic patient records, using highly agile and iterative software system development processes.

Our principal and transformative global exemplar system, UHS Lifelines, is now live for 2.5M patient records and more than 3000 authorised users at UHS, and it has attracted considerable interest from NHS England and further afield.

This work has paralleled the creation and growth of the UK Government Digital Service, and the emergence of the key principles which are transforming the UK public sector approach to the curating of major computer systems (DVLA, HMRC, DEFRA, etc) and the user experience of them.

Key principles which the GDS advocate include:

- Robust and exhaustive user experience research and discovery
- Fast implementation through Agile, Sprint and “Fail Early, Fail Fast” Methodologies
- In house ownership and development of major systems
- Elimination of Waterfall methodologies
- Digital by Default Design to secure a compelling user experience.

All staff, students and citizens are now familiar with advanced user experiences within commercial IT systems, as exemplified within mobile phones and social media interfaces.

However, the user experience of many workplace systems and interfaces across the public sector, NHS and University remains dire, with poor usability design leading to professional frustration and loss of productivity.

There is a real need to educate the academic and clinical workforces in the principles of modern software systems design and development; in order to raise expectations and to inform debate between users and developers across the entire spectrum of digital transformation in the workplace, and in all subject areas.

A generic cross University Course/s for all students and staff, most efficiently created as an online learning system, would have substantial long term value for all participants.

It commends itself for further discussion as a project for the WSI and as a valuable profiling exercise for the Advisory Board.