The wow factor: textiles get a boost with CAD in the UK and Australia: PowerPoint abstracts

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The Wow Factor – Textiles gets a boost with CAD in the UK and Australia

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Designing using CAD (in design and technology (D&T)) in the design process continues to raise debate about its effective use in the classroom by both the teacher, as a teaching aid or tool, and by the pupil, as a design and learning tool. In textiles the use of CAD in the design and development of work is becoming more prevalent.

Textiles as a subject focus area in D&T continues to grow in popularity with the recognition of its opportunity to offer design activities for problem solving and an outlet for the expression of creativity. These aspects of textiles education have become more heightened with the inclusion of industrial textiles/fashion design software, namely the Speedstep Textiles CAD Software (ProPainter and ProSketch) into secondary schools, via the DATA CAD/CAM Initiative.

The Speedstep Textiles and Fashion CAD software, ProPainter and ProSketch, is allowing both teachers and pupils to readdress their responses to design and design development by allowing them to explore design ideas in the ‘virtual’ world, as well as explore new digital manufacturing techniques through the use of ‘digital printing’, which engages the student in the whole design process by ‘being in charge of both the fabric design and the design of the end-product. It is also made more immediate by its relevance to industrial practice, which reinforces the teaching of design in the ‘real world’.

The use of industrial software in this aspect of the D&T curriculum will have broader implications for the development of teaching strategies that must engage the teacher and the learner in both the design and manufacturing environment using ‘the real’ and ‘virtual design’ environment, through a range of modelling skills, as well as creating a new mind set for education.

In this age, where students need to be involved in the creation of new knowledge, textile/fashion-specific CAD software introduces them to skills directly related to industry and provides an opportunity to liaise with industry as never before.
Examples are given from the authors’ teaching of both undergraduates and pupils at Key Stage 3 and Key Stage 4 (UK and Australian equivalent) where ranges of tasks were used to explore design and design development. From working, the authors also gain additional feedback with teachers who have developed schemes of work and resources and introduced the software to pupils to use as part of their own portfolio of work.

Keywords
technology, textiles, design, CAD, learning, modeling