Digital embroidery to teach ICT skills

Objectives:
- Contribute to ICT education and valorize digital embroidery as subject to be taught in both making and ICT classes.
- Digital embroidery allows learning vector drawing, programming, image manipulation, using complex software and general making skills.

Results:
- Six small and large-scale successful outreach events
- Positive results in a satisfaction and apprehension survey: A questionnaire administered to 78 participants (M_age=18.10, SD_age=14.18, 47% F) at one event measured interest and perceived difficulty. Interest in the activity was high (on a scale of 1 to 7, M=6.91, SD=0.29). In pre-post comparison, participants have a stable image of the difficulty of drawing and vectorization but reevaluate downwards the difficulty of creating an embroidery with a machine.
- Successful implementation in a master-degree “making” course for educational technologists.
- No research on learning effects, so far.

Vector drawing is a useful ICT skill. E.g. drawings in Word or PowerPoint, illustrations in learning materials, shapes for computer animations.

Programming
http://turtlestitch.org
Quote: based on a browser-based educational programming language (Snap!) to generate patterns for embroidery machines. It is easy to use, requiring no prior knowledge in programming, yet powerful in creating novel patterns for embroidery.

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