

IIATE's 'try-before-you-buy' scheme perfect for 3D printers

ONE piece of technology tipped to make a major impact in schools this year is the 3D printer.

As with any new gadget, prices continue to drop (smaller models come in at around the \$1000 to \$2000 price bracket), specs increase and you get more for your money.

However, deciding whether to dip into the school budget to make a long-term purchase can be a difficult decision.

In New South Wales, the Institute of Industrial Arts Technology Education (IIATE) is running a successful loan scheme allowing members to borrow 3D printers for a term at a time.

The IIATE is the professional teacher association for NSW teachers of industrial arts, engineering, design and technology.

Teacher Ruth Thompson started the scheme a few years ago with the help of a government grant, and the current 3D printer initiative was established by association secretary Alesha Bleakley.

Bleakley arranged purchase of new UP models through Intellecta and has set up easy-to-use printer packages to be loaned to schools with the help of the IIATE council. John Perdriau runs the scheme.

Monique Dall, a volunteer and a financial member of IIATE, is TAS teacher and eLearning coordinator at Gilroy Catholic College in the Sydney suburb of Castle Hill.

She has been using one of the association's five loan printers with Year 9/10 graphics classes and Year 11 design and technology students. "Teachers who are [financial] members of the association can access the loan equipment," Dall explains.

"They're proving very popular — they're all out and there's a slight waiting list coming into 2014 ... to the point where there's a discussion on whether we purchase more."

"There's no cost; the equipment is purchased by the association. There is a spool of plastic you'll go through as you're printing, and that needs to be replaced for the next school, so they get a full spool, for \$70."

Teachers have to arrange transport for the printer, taking responsibility to coordinate collection from the nearest school about to finish its loan period. Dall says the scheme is a great way to try before you buy.

"[You're able] to show leadership that it has connections to the curriculum, it's able to be run by staff, the interface is easy to use, and that it engages students."



"Gilroy probably won't be purchasing equipment at this stage, but it suited us because ... I knew the printer was coming in Term 3 and 4 — so students are actually printing now."

"We probably won't need the printer at any other time of the year, so for us it's like hiring the equipment when the demand is there. It's non-committal in that sense."

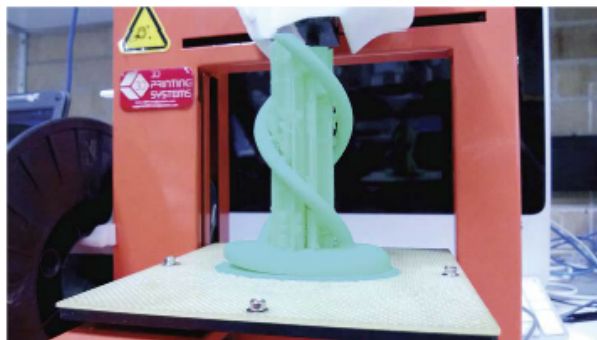
The UP printer packages loaned by the association come in a toolbox with instructions on how to use them, install software, and download 3D models from the internet and your own computer.

"And it's literally Step 1, Step 2, Step 3," Dall says. "[Alesha Bleakley] has done such a great job."

"When students create and design, they sometimes don't understand if it can actually work, but the 3D printer allows them to [do a quick prototype]."

"I'm showing Year 7s how to download models online and print. Year 10 are creating their own on SketchUp (free modelling software from Google) and actually some advanced students in Year 9 are doing it in their own time, and Year 11 and 12 are using more advanced [design] software like Creo, and creating products to a brief."

The IIATE is a non-profit organisation managed by teachers. For info, contact alesha.bleakley1@det.nsw.edu.au and for more on the 3D printer loan scheme email john.perdriau@det.nsw.edu.au



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