

## Spring LAB meeting minutes

March 7, 2014 Everest University, Melbourne..

### 3-D Printing presentation

Library Association of Brevard held its' spring meeting at Everest University in Melbourne on Friday, March 7, 2014 starting at 1 p.m. About 35 people attended, including Everest students.

An introduction and welcome was given by LAB Pres. Kellie Sparks and Valerie Mutter, librarian with Everest Univ.

A presentation was given by Mr. Tom Reynolds from the business, The Knowledge Exchange. He had brought a small 3-D printer with him to demonstrate its' use and the products that it makes, like small plastic chess pieces. He also mentioned Knowledge Exchange, located in Palm Bay, has facilities for use for a fee. These include conference rooms, with projectors, for small businesses and homeschool groups use. He offers educational supplies, books, and materials for group use as well.

He began his talk about 3-D printing and its' uses with an explanation of the history and types of 3-D printers. Mr. Reynolds explained that 3-D printing has been around for a while, at least since the 1950's, and is just now becoming more economical and available for consumer use. 3-D printing is using technology to build only what you want, and when you want it, as opposed to the mass production and design of an item. This means a custom design of parts is now in the consumer's hands, not the manufacturer.

Mr. Reynolds explained the different types of 3-D printing. There is Fused Depositional Modeling. This involves melting and drawing of a part. Next there is Polyjet, using ultraviolet materials. It produces a prototype and usable parts. Also there is CJP colorjet, which uses layers of material glued together in a color prototype, also it works with ceramic materials. He also mentioned other printers using a SLS method of lasers that melt metal, and another type called SLA that uses liquid resin and lasers.

Some of these printers are very expensive. Commercial machines for some of these techniques can run up to \$100,000. As 3-D printing moves into the consumer world, the price of some machines will drop. He believes when the price is around \$500 or less for a small 3-D printer, consumers will begin to buy them. Also that in the next generation, you will see more machines available and in use. Instead of going to the store for an item, someone will design and make an item in their home in a few hours. Right now, he will help to design and make an item for a customer based on weight, anywhere from \$20 to \$1,000.

Mr. Reynolds, during his talk, passed around items that were made using 3-D printing, including small toys, and cups using plastic design technology. Ms. Sparks thanked him for his presentation, and adjourned the meeting at around 2:25 p.m. LAB members were welcome to stay for the business portion of the meeting, which then moved over to the Everest library.

Submitted by Secretary Lynn Bennett