



3D Printing - The new craze that may change the future of manufacturing

3D Printing has existed since the '80s but has only become commercially available since 2010. **Alex Keeble** is a Barclays Digital Eagle, part of a team of 5,200 who actively work to help people, customers and colleagues, to learn how digital technology can help them in their daily lives.

The future is now; we no longer need Science Fiction and Star Trek replicators that create objects out of thin air. 3D printing technology is taking the world by storm with applications ranging from building your own Lego blocks to medical moulds; the applications are limitless. It is made possible by fusing together layers upon layers of plastic or metal materials based on a computer design.

High-end designers looking to fabricate quick prototypes of their products once used 3D printing. 30 years since its initial creation and 3D printing in your home now becomes a more sustainable and affordable reality for everyone. However, what does this mean for us? Does the future envision every household having a 3D printer and instead of buying products in store you simply download the design and within a couple of minutes you have an exact replica? As with all new emerging technology how do we copyright material objects when you can effortlessly download them from the Internet? Clearly a whole new horizon is emerging.

How does it work?

You start by designing your desired product on a computer; from there you click Print and let the printer do the work. However, many people around the world have started creating free templates of products to download or depending on the item being printed you may pay for the privilege.

The process of printing an object is very similar to how our everyday printers work except on a much larger scale. If you were to take a microscope and zoom in on a piece of printed-paper, you'll see that the ink is sitting on top of the printer. Upscale the process tenfold and you

have 3D capable printers. Imagine reverse engineering a loaf of bread? Instead of baking an entire loaf, you individually bake each slice and glue each piece together till you end up with a whole loaf.

What are the opportunities?

3D printing brings affordable, bespoke products to the masses where items are never out of stock. It's a new frontier where the world will no longer require warehouses or truck deliveries to ship consumer products to you. It's a world where furniture, product designs, concept cars and much more will be printed to your every requirement. This emerging next generation technology is still far from consumer reality but with every new technology, challenges are faced and with that come new improved and cheaper techniques.

Barclays has innovated in financial services throughout our 325 year history, and we are committed to supporting that innovation for generations to come. More recently we have introduced digital banking innovations such as Pingit and our mobile banking app. What's also important is that alongside this we have recognised the importance of still having the human element and through our Digital Eagles programme we have trained our colleagues to make the digital world understandable and explain the advantages of digital banking and commerce to our customers.

Further information:

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