

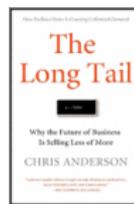
Rapid manufacturing and the future of marketing

By Martijn Laar – Berenschot/Custom Fit RM project

Marketers around the world are discovering that internet is causing the death of mass marketing and mass advertising. Customization of products and personalization of information is the marketing trend for the future. As the Berenschot and Custom Fit experience shows, now rapid manufacturing is providing the tools for companies to give a economically viable response to this trend.

In the fully transparent internet world of today, customers around the world can get personalised information on practically any product. Advertising in mass media is ignored. Also the distribution of many goods have moved to internet, where customers can easily search for- and find that one product that will exactly fit their needs. Prices have become fully transparent. Companies have tried to react to this trend by mass customization, which means that through manufacturing techniques like form postponement and the use of ICT, customers can at least partly personalize the goods they buy.

Mass customization will soon no longer good be enough though. Customers will accept trade-offs and compromises less and less. They will demand products that are targeted directly at them, instead of at a segment that roughly shares their interests and needs. So far, it was the production technology that stopped companies to comply to these wishes. It was simply un-economical to serve niches of N=1.



In his groundbreaking book 'the long tail', Chris Anderson argues that all mass markets will become a massive collection of very small niches in the future.

Internet has already enabled customers to personalize their purchase when it comes to books, video's or music. In these branches, there is huge business in the 'long tail'. This means that there is not only demand for hit products, but that a large number of items that sell only a few copies each, can add up to massive turnover. To do this profitably, you have to make that 'long tail' available, easy to find and cheap to produce and store. Internet search engines and electronic files are meeting those requirements in branches like music or books. Now, rapid manufacturing is providing the tools to customize physical goods as well.

Rapid manufacturing, where one-of products are produced by means of 3D printers directly from a CAD file without tooling, has long been considered to be a promising technology with few real life applications other than rapid prototyping. Now, reality is proving the broader potential of this technology.



In the EU sponsored Custom Fit program, a consortium of companies and universities has shown that rapid manufacturing has significant potential in the production environments as well. Already, in the aerospace, medical- and hearing aid industry, companies are customizing one-of products on demand without investing in tooling.

However, many engineers and R&D- and production departments are still unaware of what is coming. This is worrying. What technical department can ignore rapid manufacturing if it is already embraced by one of the world's leading marketers as the production methodology that will revolutionize the way we do business? For those still in doubt, let 's see what Chris Anderson has to say about the future of manufacturing personalised goods and small batches:

"... You can now take out the waiting part (in obtaining personalised goods). A 3D printer is like a factory , capable of manufacturing almost anything in lot sizes of one.... Just think what that might enable!... Feed it a 3D object file..., and the laser will get to work tracing it out.... It is like magic.... It is the ultimate manufacturing technology for the long tail of things."

Source : 'the long tail' by C. Anderson, 2006

Marketers are already embracing rapid manufacturing as the future way to go since it will satisfy the increasing demand for personalised products best. Its is now time that the manufacturing world will jump into action as well. You can actively turn the promise of rapid manufacturing into reality in many applications, and Custom Fit can help you do that.

If you want to know more about Custom Fit and rapid manufacturing, please contact anton.gerrits@TNO.nl or jwg@delcam.com for project- or technical information or m.laar@berenschot.com for business related questions. You can also visit the Custom Fit website at www.custom-fit.org for local contacts in your country.