Digitisation Has Revolutionised the Packaging Industry

Have You Joined The Revolution Yet?



A comprehensive insight into the **changing processes of packaging development** and how **digitisation** will **help** companies to implement **Design Thinking**, **Lean Start Up** and **Agile** Development methodology; allowing companies to better market new and updated packaging concepts **quickly** and **cheaply**.

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Design Is Changing

Design is changing. Digitalisation has revolutionised interactions. Businesses now interact differently with clients, clients interact differently with one another and we as colleagues have changed the way we interact internally.

Let's look at the music industry as an example: once upon a time music lovers had to queue outside their local record store to await the release of the newest album; hoping to make a purchase before the store inevitably ran out of stock. After travelling home and enjoying the album, they might choose to share it with some friends by inviting them over, or by passing the record between households.

Fast forward to 2017. Musicians can now produce directly from their own laptop and release to millions of listeners worldwide. These listeners have access to extensive music libraries over various platforms, which they can access from any device, for free, and share with friends across continents at the touch of a button. Artists can crowd fund to produce their own tracks, with listeners able to pay in advance. Now there is much more focus on the music experience, whether that be seeing your favourite band live in concert, or experiencing their songs on the go with a quick search.

So how does digitisation affect the packaging industry today? With great developments in the technological side of design, augmented reality, cloud collaboration, distance working, CAD, virtual reality and social media; many opportunities are vastly widened for innovation in packaging. Forget about merely 'keeping-up' with technological trends; let's get there first, embrace the change and reap the advantages of digitisation.



The Problem with Packaging Design

The packaging world has experienced true innovation in recent years, and key actors, big and small, are constantly pushing the boundaries of what we expect from packaging. Look at the rise of personalised packaging and the introduction of smart 'use-by' food labels for a start. But let's get to the point. The time to market currently considered 'normal' in the packaging industry is far too long.

The average package design takes 6 months to land itself on the shelf. This is a very slow process; in that time consumer trends may have changed, lowering the likelihood of the product's success. This is one of the reasons that only a tiny 10% of new products are successful (Nielsen Europe, 2017).

Long prototyping processes leave a lot of space for mistakes to be made on new designs and for key decisions to be overlooked.

Here for example, the photo and graphics on the box have not been tested with the handle cut-out, making for an unfortunate placement over the baby's eye. This suggests a lack of testing and communication between the designer, printer and manufacturer.





With this potato bag the clear plastic allows the customer to see the exact quality of the potatoes inside, however the translucent blue section gives the potatoes an off-putting blue tinge. Mistakes like this are due to last minute and uninformed decisions. This could have been avoided had they used a prototyping tool by which all angles of a package could be viewed in their context before manufacture.

As designers, brand managers, market researchers, manufacturers, and printers; we avoid mistakes as far as possible, but with a slow collaboration process of sending physical prototypes back and forth, writing reviews, scheduling lengthy meetings, and depending upon 3D experts, there is large room for error.

Welcoming Digitally Enhanced Ways of Working

The incline towards digitisation offers us completely revolutionised working methods. It allows us to take hold of innovative new methodologies which focus on the end user and allow for a lean, agile loop of building, measuring and learning. These methods are set to reboot the way companies launch new and updated packaging concepts.

Design Thinking

Design Thinking Methodology encourages us towards a solution based approach, rather than focussing on problems. It is the thought that clients often are not aware of what they need until it is shown to them.

The 1bn monthly users of Google Maps were unaware that they needed a digital navigation system until it was presented to them: perhaps they thought they needed better signage in towns. Consider Henry Ford when inventing the automobile, 'If I had asked people what they wanted, they would have said faster horses.'

Design Thinking amplifies the voice of the customer in the design process. Since customers are involved with testing and helping to reframe the designs, they can be assured of a final product which more suitably reflects that which they desire and/or need, in a timely fashion.

As opposed to classical schools of thought that ask us to define and solve a problem, **design thinking** requires us to **find the solutions before consumers realise** they even have a **problem to solve**.

The process can be broken down into several sections, which can happen either simultaneously, cyclically or sequentially. See the diagram on the following page. To achieve great **Design Thinking**, rapid prototyping is essential. Usually, the prototyping phase can take months of meetings, numerous emails and expensive prototypes. However, this stage must be accelerated to enable a focus on continuous evaluation and re-framing.

Success Story

Procter and Gamble found a new way to re-launch their struggling brand Oil of Olay by using design thinking to consider the needs of their 'soon-to-be' customers, and 'unexplored' non-customers. This helped them to re-frame the solution that could be offered from Olay and led them to launch Olay Total Effects in 1999; a cream which focussed not only on wrinkle reduction, but also the other aging effects such as age spots and dry skin, that concerned their 'soon-to-be' customers

day cream

touch of foundation

Design Thinking Diagram



Explore possibilities for creative solutions. Use ideas from your understanding of the consumer.

Understand:

Choose a topic rather than a problem. Gather data and evidence which allows you to fully empathise with the human needs of the consumer. Which desires are not yet reached?

BUILD

Prototype:

Rapidly prototype! Bring your ideas to life quickly, fail fast, try out new ideas. How can they be adapted to make them more viable, and to better serve the consumer. Innovate!

Re-frame:

LEARN

Find the opportunity. Re-frame your initial thoughts taking into account empathy with the consumer. Allow your team to dive into a range of stimuli.

Test:

Evaluate and modify based on user feedback on prototypes. Learn from consumers and use new understanding to re-frame.

Lean Start Ups

Let's look into **Lean Start Up** methodology! Anything that makes processes **less complicated**, **quicker and easier** to follow is **Lean**. **Lean manufacturing** puts a focus on minimising **errors** and **losses**.

Lean start-ups undergo a cycle of building, measuring and learning; they may start by learning about their clients, building a prototype based on their knowledge, measuring the outcomes and learning from the measurements. In this way they can re-build, measure again – perhaps with a different focus – and learn again. By following this cycle a company will move closer and closer to a full understanding of the consumers' desires, and will be able to align themselves to meet that need.

As with the **Design Thinking** method, **Lean Start Ups** require **fast prototyping** and **measuring**, so that the **cycle** can continue with **momentum**. It really is **crucial** that the **prototyping** process **be rapid** to enable the company **to focus** on **measuring** and **learning**; and to **go through** the **cycle numerous times**.

Lean Start Ups, in their nature, are an economic method of product testing. They allow for products to be tested quickly and as many times as are necessary before validating the hypothesis of the new product.

The Minimum Viable Product is the cheapest and most rough version of your product that can realistically be used by the end consumer. Using the MVP is about spending as little as possible on prototypes, just enough to be able to test it with the final client until validation. Since it costs very little time and money, you can make lots of rough prototypes and test them as many times as necessary.

Lean is rough. It is about making mistakes early, cheaply and quickly. Fail fast, learn sooner. By implementing Lean methodology a company can learn much more, with less money. Prototype, build and learn instead of spending big budgets on launching new products that nobody wants.

With Lean Start Ups, companies must be willing to be flexible, to use their learning to decide whether to pivot or persevere



Success Story

Dropbox was already **established with 100,000** users before it's CEO Drew Houston starting applying **lean start up techniques** of quick, rough prototyping in order to discover exactly what their customers wanted as soon as possible. **15 months later**, this brought them to more than **4 million users**!

Agile

Another option is **Agile Development**. **Agile** is a set of principles; one which values individuals and interaction more than tools and set processes. The **focus** is on **collaboration**, getting things done and **fast working**. With **Agile**, development happens in '**sprints**'.

Rather than a 6-12 month development process which attempts to predict risks before making any moves, Agile gets stuck right in by working for short intense periods of 1-4 weeks. A new idea is worked on for a short defined timeframe, then there is the chance to stand back and see what has been created, and then reassess. After assessing whether certain criteria have been met and evaluating the work up till that moment, it's time to get back to work on another development phase. These cycles are a continuous process of sprinting and evaluating, sprinting and evaluating.

The client is involved in the conversation from start to finish; this makes for a much more streamlined approach because the developers can ensure that they are sticking closely to the end users desire, rather than straying from the brief without realising until later meetings.

Agile promotes change and continual development. By regularly evaluating the product you are creating, it is easy to welcome changing requirements from your client at any point during the process. This style of working is particularly effective in industries where trends are quickly changing.

Success Story

After the Swedbank Group adopted Agile development methodology, they found that the feedback loop for new ideas was much faster, and vastly improved collaboration amongst employees whilst also increasing motivation. They say that 'business and IT worked from their own assumptions, towards their own goals. Small misunderstandings caused large delays.' Whereas using agile, to work together, they now have meetings focussed on celebrating what they have achieved in the past week.

3D Click's Proposal

Bearing these opportunities in mind, we see 4 great shortages:

- 1. A short decision making process.
- 2. Faster prototyping and testing.
- 3. Point of Sale visualisation.
- 4. Quick and efficient sourcing.

Understanding the major shortages in the packaging industry, we propose a collaborative, online prototyping solution for packaging professionals by which they can personalise packages in 3D and validate them at the Point Of Sale. Thereby incubating streamlined, quick collaboration which allows for the implementation of Design Thinking, Lean Start Up and Agile methodology. These 3 ideals are similar in that each one promotes a faster paced developmental process, which is repeated until the product reaches excellence.

3D CLICK, as a purpose built collaboration tool, accelerates evaluation and modification by providing an online platform for designing, customising, and printing packaging prototypes, allowing all members of the packaging supply chain to annotate 3D designs and respond to each other promptly. Everything is done online without needing to download any software, or even having any 3D knowledge.

To make the most of Agile, Lean and Design Thinking, companies must learn to fail fast and prototype cheaply, testing the minimum viable product with their customers. **3D CLICK** enables companies to demonstrate their prototypes to clients and colleagues through appealing presentations before even having to print. This means that ideas can be shared from anywhere in the world without having to travel for meetings, or send items in the post. Additionally, using Augmented Reality to see your product directly on the shelf next to its competitors, means that packaging designs can be validated at the Point Of Sale using a QR code, and your phone or tablet.

As an industry, we are **constantly learning**, and we will continue to **adapt and grow** as technology and trends advance. It is up to us to take hold of the changes occurring and run towards a more **streamlined approach**; delivering **better results** and **cutting down the time and money** spent getting there. Let's take advantage of these opportunities to lead the **packaging industry** into a **new era**.



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For more information:



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