



Why Retailers Need to Implement Visual Search Technologies

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Retailers are increasingly ploughing investment into refining online search to ensure customers easily get to the products they want, but visual search is a technology about to disrupt the way consumers discover products and content online.

The shift from using text to sharing images can be well documented all over the internet in recent years. As the smartphone began to match the average family's point-and-shoot and the cloud expanded our storage capabilities, taking photos became less of a commodity. Today's babies won't be looking through precious photo albums of them grinning toothless at the camera in the coming decades, they will have thousands of digital images to flick through instead – if they can be bothered.

Just check out Facebook littered with photos of your friend's boring lunch, or the increase in emoji-led conversations on Whatsapp and SMS. It's clear today's customers are much more visual. Now combine these image-obsessed millennials with a smartphone, superglued to their hands, which is their first port of call whenever a question pops into their heads.

"It's the tool they reach to satisfy a moment of inspiration and beginning a search to find the next must-have item," describes Isla Kirby, digital director at shopper marketing agency, Savvy. "More and more shoppers are not merely looking for, but expect convenience," she says. "And their smartphone is the key device they reach to deliver this. Making a search simpler and easier and more in-line with

shopper expectation is key and visual search is a natural step to achieving this."

Last year, **Neiman Marcus expanded the use of visual search** in its app across all of its categories. Developed by Slyce, the app allows shoppers to snap a photo of a piece of clothing, accessory or homeware item on their smartphones, which is then matched with similar styles available to buy on the retailer's website.

Ruth Harrison, director of retail strategy for Europe at technology consultancy, Thoughtworks, agrees with this new trend in search. "We are seeing a shift from text-driven content to strong image-driven content particularly via social media channels. In a global economy conventional text language is being bypassed and image content is becoming the universal language of customers – just look at Pinterest, et al – customers can like any image that interests them, however a quote or text message has to be understood or translated, which limits the power of the communication."

Neiman Marcus

Artificial intelligence

Empowered by artificial intelligence, visual search can benefit retailers because the industry itself is driven by visual content – be it the latest must-have dress or designer sofa, a tech-

savvy e-tailer will display its wares online with multiple images, zoom functionalities and 360 videos.

But visual search is not just the ability to recognise an image and place it into a certain category, using artificial intelligence machine-learning algorithms can go beyond recognising a red dress, and can identify specific details such as motif and patterns, which provides a much richer user experience.

At the end of last year, global e-tailer, **Shoes.com, deployed artificial intelligence** to filter its range of thousands of shoes to help customers find the perfect pair. Partnering with Sentient Technologies, people searching for boots would click on a pair they like on the landing page, and would then be presented with another page full of similar styles. Customers can continue to filter styles by clicking on more boots. By learning the shopper's style preferences, the website would recommend shoes in a similar way an employee would suggest styles in a physical store.

"Consumers are already using AI-powered search technologies and the prolific use of visual content driven social media such as Pinterest and Snapchat has heightened consumers' appetite for this technology," says Harrison.

John Lewis

But are retailers ready?

But while customers might be ready for searching online using images rather than text, are retailers prepared? After all, many have only just perfected text search, never mind the extensive work that goes on behind the scenes to **perfect SEO.**

Harrison says her retail clients are aware of the capabilities of AI, but not many are embracing the technology to its full potential. "They are yet to fully exploit how best to incorporate this technology into their current customer experience," she explains. "Visual search is going to be the next big shift in how eCommerce is powered, and retailers with complex legacy systems will likely struggle to adapt and incorporate this new technology."

John Lewis has been one of the few UK retailers to bet on visual search technology, deploying Cortexica's API only last month. **Following a successful six month trial,** the retailer has added the AI technology permanently to the online fashion pages of its app. John Lewis was the first UK retailer to install this technology and it was also the first API the retailer has ever used from outside the partnership.

Deploying the technology

Cortexica's technology – which was developed by scientists from the bioengineering department of Imperial College London – replicates processes

found in the human visual cortex to recognise content from digital images. It then displays search results of a range of products within a particular category that are visually similar in colours, shapes, details and patterns. John Lewis said by searching inventory visually, the customer has access to a greater range of product choice and inspiration without the need for inputting keywords.

The company has another three retailers in the pipeline, but chief solutions officer, Alastair Harvey is sworn to secrecy on who they are.

"Visual search or image recognition in the basic form – pictures to communicate or search – has been around for a while," he says. "But the awareness and understanding within retail has begun to gather momentum. I wouldn't say it's a panic, but there's an increased energy diverted towards image search – it's not going to replace keywords, but it will definitely strengthen and may dominate."

But Harvey says no two retailers are the same and many have problems with their legacy systems which prevent immediate adoption – an age-old problem faced by **retailers wanting to deploy any of the latest digital technologies.**

"To get it into their workflow, some retailers can't put it in for 12 months –

the longest bit for John Lewis was getting it into their real estate," describes Harvey. "We can turn around a big retailer in two weeks, plug in the API, but it's the redesigning of the user experience for shoppers which takes a bit of time."