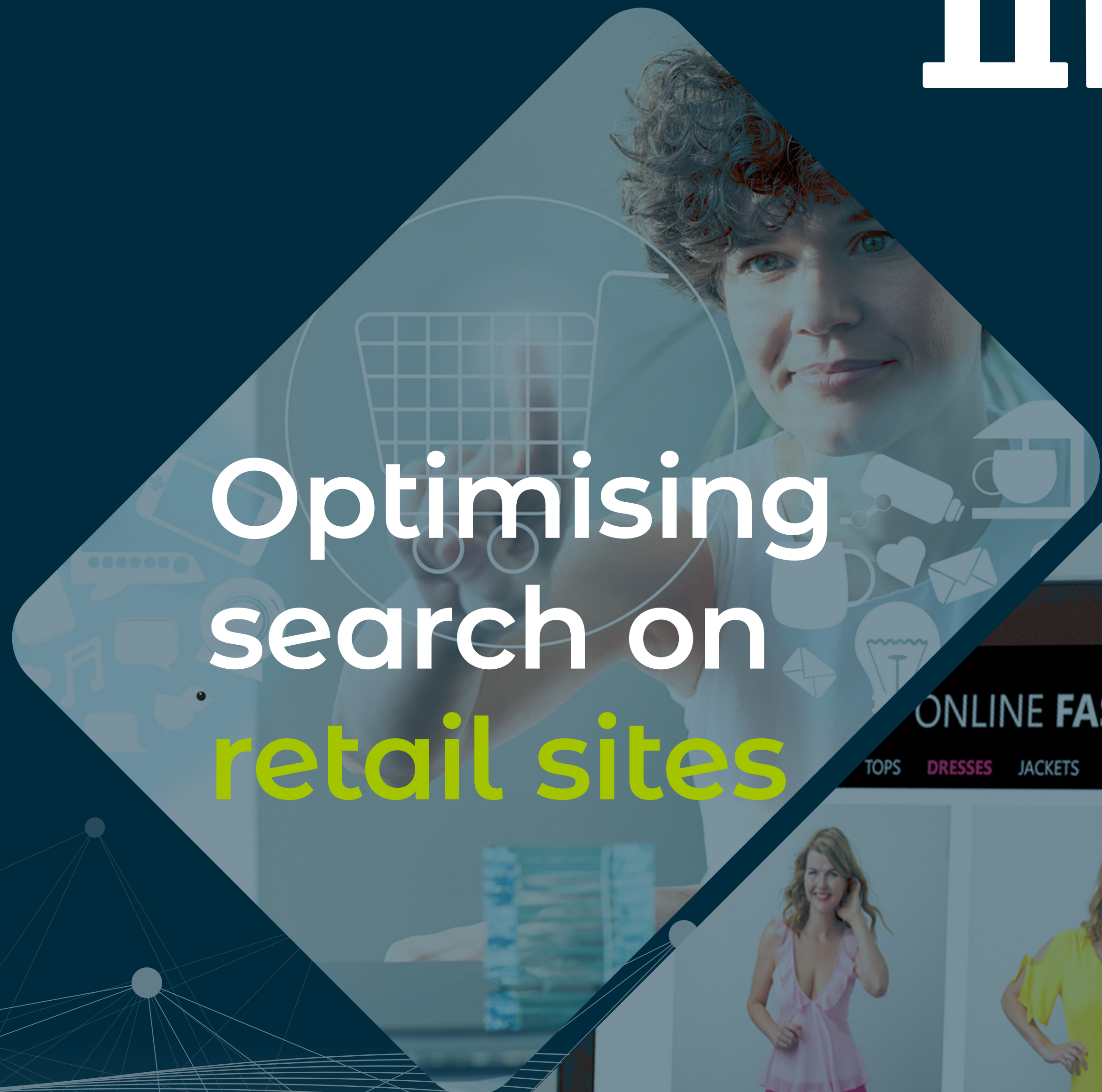
Data.
Analysis.
Insight.

Optimising search on retail sites



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Foreword

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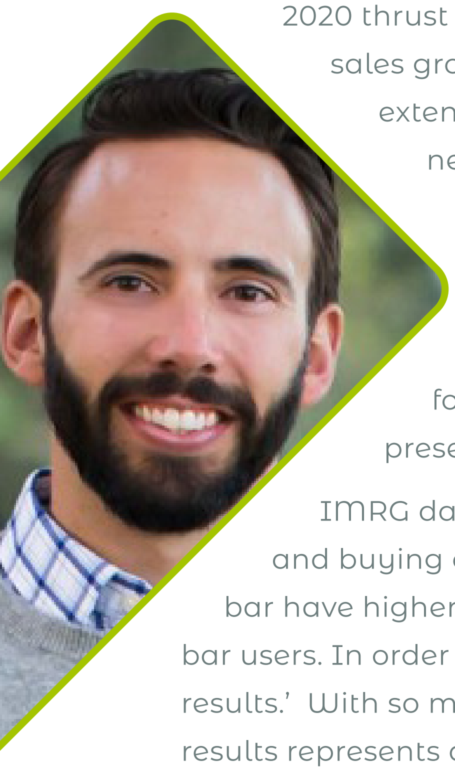

2020 thrust all retailers into an adaptive online existence, accelerating online sales growth with many brick and mortar stores being shut down for extended periods of time. Since the lockdown began a year ago, a whole new tranche of first-time online buyers has emerged, purchasing from both the retail brands they previously visited at brick-and-mortar stores, as well as brands that are completely new to them. Consumers were utilising online shopping for basic needs and necessities like they never had before. Retailers were forced to adapt to the accelerated sales growth and new online presence.

IMRG data reveals interesting trends about how shoppers are browsing and buying on retail websites. The 30%+ of shoppers who head for the search bar have higher purchase intent, being 2x more likely to purchase than non-search bar users. In order to convert those shoppers, retailers recognised a major issue: 'null results.' With so many shoppers heading to the search bar, a search returning 'null' results represents a significant chunk of missed revenue.

Whereas the popular 'head' searches may represent 1000 unique queries, the 'long-tail' might represent 200,000 unique searches, and these highly specific searches indicate an especially high propensity to purchase. However, these types of searches frequently end on the dreaded 'no results' page. The issue of 'null results' lies with the existing paradigm of lexical search-based platforms that match words instead of meaning. Manual tagging by merchandisers cannot possibly cover the myriad of descriptors used by consumers in these types of long-tail searches.

Thankfully, technology has a solution to ensure consumers discover the products they want. AI-driven, vector-based search offers a scalable solution to merchandisers and ecommerce managers by addressing low-performing queries without requiring curation of lexical rules. Utilising machine learning, Lucidworks is able to identify wider trends in search patterns and surface the most relevant products for the search terms. This is a major breakthrough that allows merchandisers to focus on more strategic initiatives.

And as consumer search terms change depending on the season and events (eg Covid-19), the platform learns from consumer signals, enabling brands to continually connect shoppers with the most relevant products or information.

The proof is in the results: one top retailer over holiday peak reduced zero results by 91% and those sessions converted at two to three times what the zero result sessions converted at previously. Scale these results across the number of customers using search to help them shop and the argument for AI-driven vector search becomes clear.

Garrett Schwegler, Programme Manager Global Digital Commerce, Lucidworks

IMRG

The last 18 months have seen a massive change in the face of retail. With most physical outlets closed, offline shoppers have had to get used to shopping online. At the same time, some well-known high-street brands are struggling to make it through the crisis or are being reinvented as pureplays.

This surge of new online shoppers has caused some interesting challenges for retailers. For the pureplay brands, can we capitalise on the shift to commerce first and deliver experiences that keep us top of mind, bring shoppers back and for the multi-channel brands, how can they fulfil customer goals through their site to increase loyalty and cover their bricks and mortar business.

This report explores some of the key areas where converting the newer user requires a more sophisticated product discovery experience, particularly if we want to turn them into satisfied and long-term users of digital channels. Our focus will be around site-search. Some of the focus will be around the use of technology. We will also be looking at our understanding of how users interact with our online catalogues and how we can learn from them to convert their goals into sales. Reviewing terminology, search behaviours and intent.

Using data and insight from the IMRG's quarterly benchmarking, a customer survey and technical insight from our report supporters, Lucidworks, we will provide you with some action points that you can apply to your own web offering.

At the end of the process, the refinements will also benefit all customers.

Andrew McClelland, Consultant, IMRG

Introduction

Common availability of the internet has been noticeably changing the face of retail for the last 18 years. During that time, the number of online users has grown, and they have become more adept at using websites, first through desktop computers and now through mobile devices and apps. Often, the purchase path includes digital locations that don't even look like 'shops' and will eventually rely on speech rather than typing.

The industry has spent this time fine-tuning the customer experience and functionality, taking the users on a journey. Sometimes this has been steered by the users themselves, through focus groups, user labs and social media feedback loops. More often, a new technology offers up the promise of improved conversion rates and retailers have encouraged their users into the new functionality.

The long and short of this though is the increased sophistication of these digital 'natives'. Usually, this term is associated with a younger age group. In the context of this report however, we are applying this to the group of customers who have been on this journey with the retailers and are used to navigating their way around a web offering, in different channels and via different devices, often despite a retailer's lack of site optimisation.

Fast forward to 2020 and the pace of change in retail increased exponentially. With most physical outlets closed, retailers have had to double down on their digital offerings, often on the back of years of underinvestment and paying lip-service to the demand from customers for a better web offering. This isn't the place to discuss the rights and wrongs of investment in digital platforms over the last few years. However, what we are now seeing is the pent-up demand from consumers who predominantly shop in-store, now looking online to satisfy their demands.

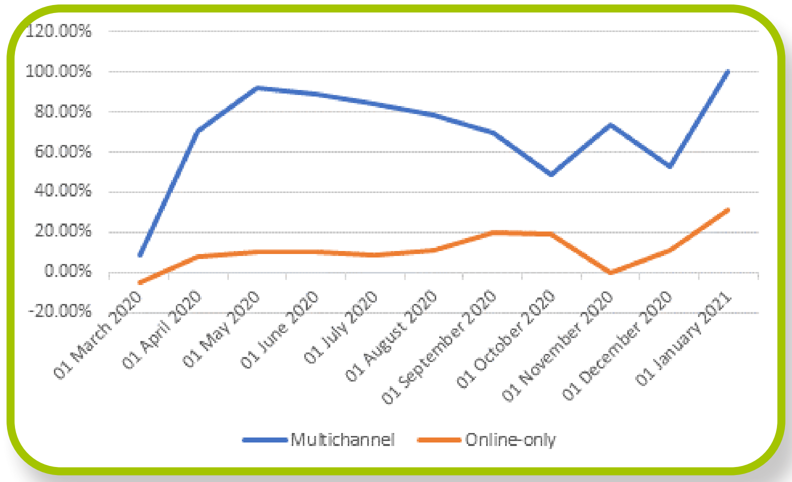

Figure 1. Sales growth of ecommerce websites; comparing pureplay and multichannel retailers. Source: IMRG Capgemini eRetail Sales Index. Dec 2020

Additionally, there have been some high street brands that have fallen victim to the enforced closure of the *'high street'*. Some of these have strong brand followings and have been purchased by pureplay rivals.

Customers of these brands will now have no choice but to shop online, which might also open their eyes to other brands!

Trend data shown in Figure 1, shows the rapid increase in sales growth on the websites of multichannel retailers; those most impacted by lock down enforced store closures. Pureplay retailers showed a slight contraction at the same point of inflection, probably as a result of stalling consumer confidence. **Interestingly, multichannel websites saw 20% growth in the pre-Christmas trading period**, even though there was a relaxing of restrictions and some physical outlets were open again. The approach of Christmas and customer sentiment drove this new increase, probably partly out of fear that purchases would not be delivered intime for Christmas, perhaps another indicator of their relative lack of experience in online shopping.

"Over 50% of respondents said that they changed their shopping behaviours because the physical stores had been closed."

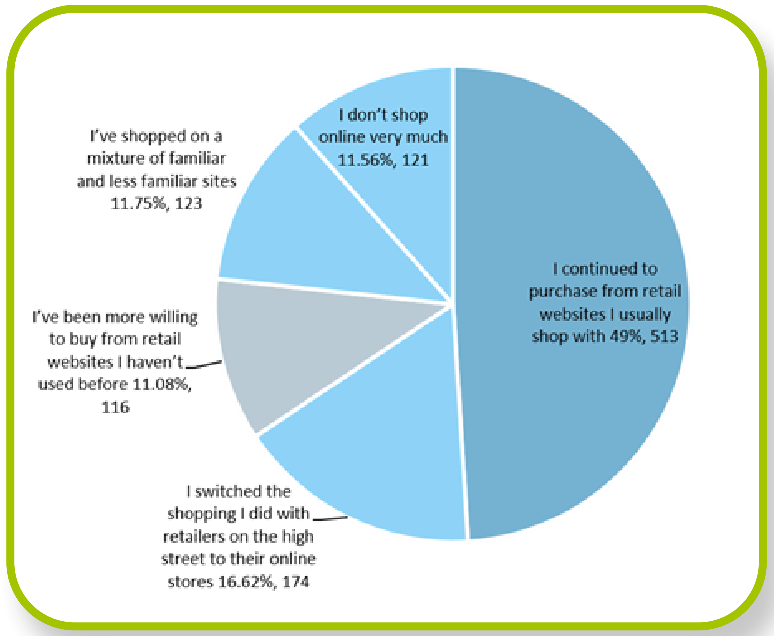

Figure 2. Online shopping behaviours during pandemic. Source: IMRG Toluna customer behaviour survey. January 2021

Further insight on customer brand loyalty, as they change shopping channels, is provided by the IMRG Toluna Customer Insight survey carried out in January 2021. Over 50% of respondents said that they changed their shopping behaviours because the physical stores had been closed. 17% specifically went to the online version of their usual high street brands. Nearly 12% of the sample hadn't shopped online very much before the pandemic hit. Interestingly, 23% actually started shopping with brands they hadn't tried before. These *'explorers'* are a potential market for a number of reasons and whilst they may not be online novices, they are open to product discovery. Customers that might be new to a brand but have a good idea about what they like.

The new cohort of online shoppers have not had a gentle introduction into the world of online shopping enjoyed by the digital natives. This is not out of choice, theirs is very much a need driven behaviour; only time will tell how long this change sticks.

Lucidworks comments:

The pandemic and peak trading season has pushed the retail commerce industry into an exciting space. Shoppers have an online first mentality now, many of who are new to online. Additionally there is an interest in shoppers to explore new brands. This means there's a huge opportunity, right? However brands are also discovering it's the perfect recipe for shoppers to struggle with product discovery, to open a new tab on their browser to find what they're looking for at a competing store. Whether it is vocabulary mismatch, misspellings, brand mismatch, or catalogue unfamiliarity, shoppers are often finding themselves at the dead end of a zero results page. Brand loyalists from brick and mortar relationships are exploring their curiosities and able to jump from one site to the next, rewarding the site whose search box understands their search intent best.

Behavioural change – Product discovery

As in stores, browsing for product is an integral part of the shopping experience for many online shoppers. **However, nearly 30% of site visitors utilise the site-search to quickly hone down their product choices,** according to the IMRG Toluna survey.

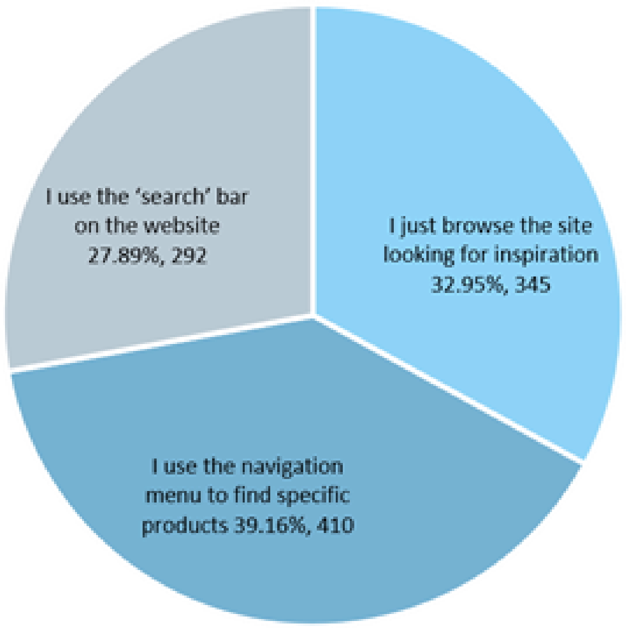

Figure 3: How shoppers find products when arriving at a website.
Source: IMRG Toluna customer behaviour survey. January 2021

Why the interest in site-search?

There is a lot of attention in getting shoppers to a retail website. However, the real crux of a successful website is getting those visitors to purchase. If 23% of online shoppers are now open to trying new brands online, getting them to visit your website has just got a little bit easier. However, the path to purchase is never straight so how can we help them on their journey?

According to the IMRG Capgemini Quarterly Benchmark (2017-2020), **a peak of 23% of all visitors to the sites in the sample, use site-search.** At a granular level, one merchant saw 36% of visitors using site-search. This is slightly higher than the IMRG Toluna survey but represents actual site data, rather than customer sentiment. To put these numbers into commercial perspective, and looking at one website in the sample, **an overall conversion rate (CVR) of 4.1% was outperformed by site-search Conversion Rates (SCVR) of 7.9%.** Even at other end of scale, sites with a CVR of 0.8% still saw an improvement with site-search conversion, with SCVR of nearly 3%.

Whilst there are obviously a wide range of factors explaining the different CVR's of the sample, SCVR is always higher than sitewide CVR. One website in the sample had a sample average use of site-search by visitors of around 12%, but by-far the highest SCVR at nearly 23%, nearly 3 times its site-wide CVR. The increased conversion rates of shoppers using site-search could be explained by a higher intent to purchase, needs awareness or product knowledge.

Lucidworks comments:

As the trend continues it becomes the new normal. We know that shoppers convert up to 2x higher when engaging with search. This represents a genuine opportunity. However, as more shoppers use the search bar, more revenue is at risk for the brand. Today, many brands are leaving money on the table while shoppers struggle to find the products they are asking for in the search bar. As search usage increases, it's imperative to focus on the search and product discovery platform to protect your revenue and more importantly give shoppers what they're looking for. The shoppers ending up on null results pages will assume that you don't carry that product which is often not the case.

Investing in site-search

Considering the retailers investment in getting shoppers to the website, **it is alarming to see that nearly 30% of the visitors who then use site-search go elsewhere if a search term comes back without any results ('null' result)!** This is particularly galling when the popularity of the site-search box is considered.

To compound this, 63% of the shoppers receiving a 'null' response, believe it is a problem with the website or retailer, rather than the search terms they have used. Of course, over time, users will get more sophisticated in their use of these on-site tools. Most merchants though do not have the luxury of time to wait for this.

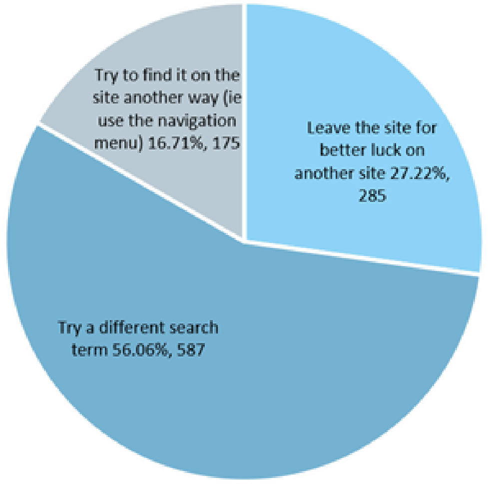

Figure 4: Shoppers next action when a site-search has no results. Source: IMRG Toluna customer behaviour survey. January 2021

Even a brief look around merchants websites can highlight why the customer can't get accurate results. A brands lexicon can include a wide array of internal or industry specific terminology for describing functionality or characteristics. In a drive to improve differentiation, merchandisers start to use copy that isn't in common usage by customers.

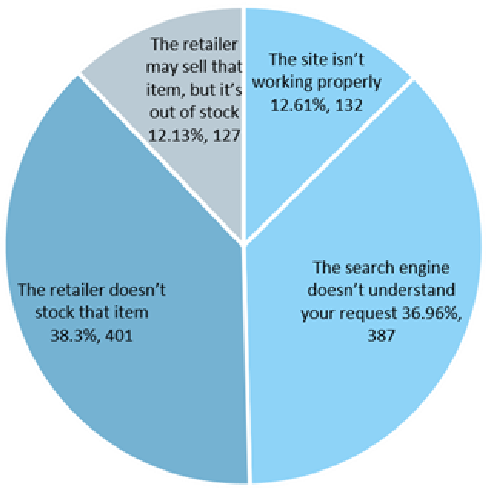

Figure 5. Customer assumptions following 'Null' results on site-search. Source: IMRG Toluna customer behaviour survey. January 2021

If you consider the myriad of product characteristics, it is no wonder that the customer can struggle to find what they are looking for; perhaps until they get to know the merchant. **Sizes, cuts, colours (or perhaps 'colors') and terminology are just a few of the areas where merchants get creative, but then leave the customer behind.**

The issue is further exacerbated when a merchant sells internationally. Size conversion, local dialect, translation, spelling (remember 'color'?) and local descriptions (pants vs pants) all add to the complexity.

Lucidworks comments:

As the shift to search continues to grow and the exploration of new brands is fueled by digital natives, poor product discovery experiences will amass. With the stakes so high brands can no longer wait around for a merchandiser or search analyst to comb through the low performing queries trying to improve them one rule at a time. They'll never get to the bottom of the pile and there are plenty of other things your teams can be focusing on. Once a top sells out, or a new colour is introduced the search and merchandising rules are no longer effective. It's time to consider a solution that can learn from your shoppers and automatically improve the search experience.

What does the prize look like?

It is well known that 'Longtail' search strategy is a cost-effective way of capturing the 'outliers' of customer search behaviours. These users might be brand advocates who know how you describe the colour red or the complete opposite, customers new to a category who don't know what a 'multi-sport' watch is. Normally viewed in the context of Search Engine Optimisation and bidding strategy for key words, reviewing internal tables of site-search terms can reap benefits.

"Data from Lucidworks shows that upwards of 60% of searches can be 'longtail' queries."

Data from Lucidworks shows that upwards of 60% of searches can be "longtail" queries. Many teams and search engines can handle the top queries, but what about the rest of them? To put this in perspective, this can be 200,000+ queries, of which many show zero results or irrelevant results, and often never addressed. Sales from Longtail results should be easy! Shoppers are very clear what they're looking for. However, they are often the inflection point between keeping a potential customer on the site or losing them to a competitor.

Not only do site-search users represent a significant proportion of site visitors, but they also convert at much higher rate than browsers and navigation users. Yes, some of this will be down to users being more task orientated but, as we have shown, there are a lot of users trying out new brands, and they are using site-search to home in on their requirements.

Figure 6. Proportion of sales against popularity of site-search terms
Source: Lucidworks customer case study – December 2020

Lucidworks comments:

Using AI to attack the tail is the most effective and efficient way to impress your shoppers and drive value into your search box. With a bottomless pit of poor performing queries in the tail, no team will ever make significant progress with one rule at a time.

How to get there?

Not completely a 'how long is a length of string?' type of question. There are some simple hygiene factors and some technology solutions.

First off, the hygiene factors. How easy is it to find the site-search bar on any page of your website? Anecdotally, top central/top right seems the most popular. However, this can also be moved to remain in context. For example, at the top of a navigation, as the user follows a breadcrumb of category attributes to find a product of their liking. In some situations, it can be worth gathering some customer requirements at the beginning of the visit and using this insight to provide context to the product discovery.

This example from the Fabletics website pops up very early on in the customer journey. Whilst not site- search in the traditional sense, it is providing a layer that sits between guided navigation and site-search. It curates relevant collections for the visitor which can help with relevancy. However, if this becomes too intrusive, it can be off-putting to the user.

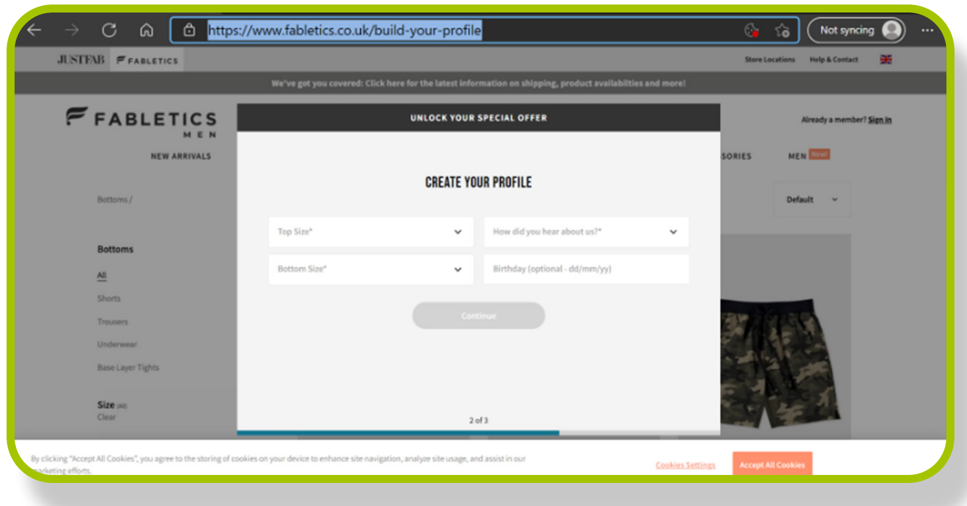

Figure 7: User categorisation layer for new site visitors.
Source fabletics.co.uk January 2021

As mentioned previously, internal vocabulary can create confusion. Although, brand affiliations are often built around factors that create a sense of belonging or differentiation that customers aspire to. Lululemon is a good example of this. It's creativity and individuality is reflected in it's product names, descriptions and colours. In the example below, the long sleeve shirt probably doesn't include metal vent's, but the colour description "Midnight Shadow/Tempest Blue" does speak to action and power.

Where does site-search come in? To allow for creativity whilst remaining relevant, product titles include language in the common vernacular. For example, "long sleeve". This will come out as a common way of describing this particular type of garment, so is relevant to site-search (and SEO). Likewise, there is a dramatic colour description which crucially includes the word "blue"; a colour description that is in common usage.

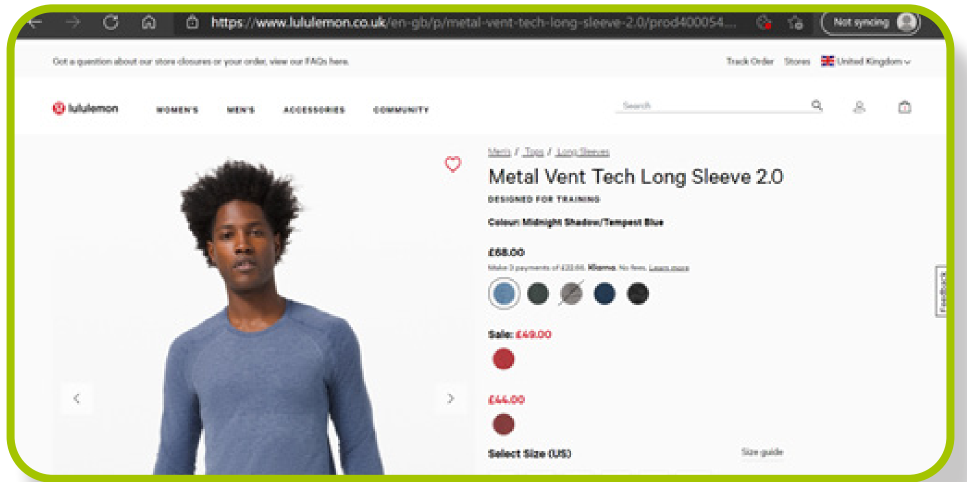

Figure 8: Lululemon product page showing brand aligned description and colourways. Source: lululemon.co.uk January 2021

The second element to look at is the technology.

Building tables that cover all possible search terms and mapping these to products is very labour intensive. There is also the risk that building this structure internally 'hard codes' some of the errant terminology into the search functionality, leading to ongoing issues with 'null' results. Technology can play an important role in curating the search results and the data required to achieve them.

Lexical search relies on matching known words in the search table with those entered as search terms by the user. Generally, the more words in the search that match, the better the results. However, sometimes the user does not know the exact words to use so there is a role for semantic search. This is where the technology derives a meaning from the words entered and matches them up to possible solutions and presents these to the user.

Vector search utilises Artificial Intelligence (AI) to determine responses based on a wide range of metrics, that present statistically significant responses to search terms. This can be from historical results where previous search terms are matched to eventual transactions; the more of these that are mapped, the stronger the results for the user.

These types of engine can also be used to ensure that 'null' results are avoided by providing solutions where an exact product match isn't found. A basis for this can be what other users did when they had a 'null' result for a particular search term. By tracking this activity, we can seek to continue the conversation with the customer. For example, did the user find another product which they then purchased. Additionally, is there a link with this product and the one they originally looked for; there is limited value in creating a product relationship that only suited that one purchaser.

Potentially, a worse outcome is the 'out-of-stock' search response. Whether from external or internal search results, the loss of a transaction from external traffic, which may have been 'paid-for', increases the merchants financial hit.

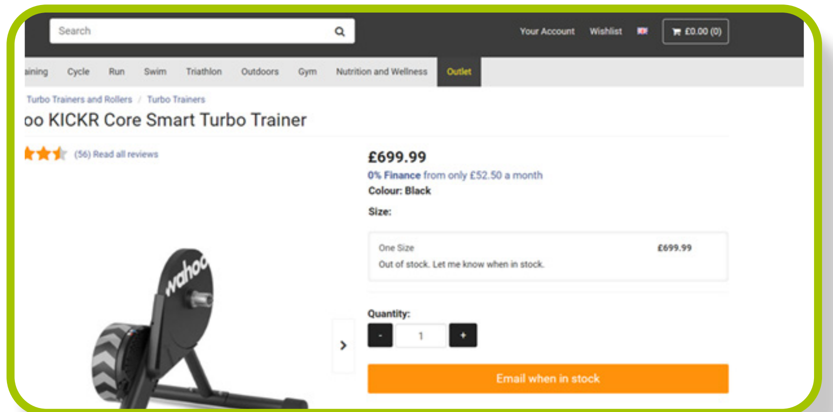

Figure 9. Out-of-Stock message with a stock reminder option. Source: January 2021

This example, from a popular website, links an external search to a product, which is currently out of stock. The impact is slightly mitigated by the 'email when in stock' message.

We do need to recognise a balance here. Whilst the product is out of stock (as it is on many websites at the time of writing), it is a popular product. So, as an external traffic generating mechanism, it has its value. However, care must be taken that the user does not feel as though they have been bought to the site under false pretences. Prominent availability of the site-search may also mitigate some of the users' disappointment.

Likewise, tracking what is added to the basket, and purchased, after a search provides another point of data that not only improves the search results in the future, but also insight for the merchandising team. This could highlight unexpected product combinations or relationships between categories.

This is all based on user behaviour across the merchant's website, so can take into account the knowledgeable user or the 'newbie'. The precision of results, based on clear user data, improves conversion rates and customer affinity with the brand.

According to data from Lucidworks, these changes can result in an increase of search click through rates (SCTR) of 20%, a reduction of null responses by 90% and an increase in search related purchases of 30%.

Lucidworks comments:

This is the product discovery revolution. The foundational approach to precision, recall, and relevance is churning out a lacklustre ecommerce search experience: too many zero results, irrelevant results, results excluding many relevant products. Your customers have high expectations, limited patience, and money to spend. Semantic vector search eliminates false zero results and accelerates the path to purchase. It's time to understand the goal of the customer, listen to what they're asking for, and dig up the products in your catalogue to sell them. Gone are the days of zero result dead ends for products you have.

Next steps

To provide some direction, the following actions can be considered a starting point.

1) **Metrics:** Understanding some key metrics is a good place to begin. Remember that there are a lot of factors that can impact any one of them. For example, in IMRG's study, the lowest use of site-search was 2% whilst the highest was 36%. Amongst this spread, CVR ranged from 0.8% to 8% and this didn't have any correlation to the use of site-search. Every website showed a higher CVR that came from site-search derived sales; the lowest being 2% and the highest at 23%.

2) **Customer experience:** Understanding the site-search experience from the customer perspective is also important. Are you reliant on 'industry speak' or inhouse terminology? Can you get a stock feed to show that yes, you would normally stock the product, but you don't currently have any? A response such as this can encourage the visitor to explore more and not leave the site without making a purchase or, at the very least, have a positive experience with the brand.

3) **Merchandising:** Again, review the content and copy on the site and how much of this is picked up in search tables. Can you map common terminology with the inhouse style?

4) **Review technology:** Whilst the different types of search technique have value, some will be more suited to a brand than others. Review how accurate the search responses are, what experiences does it provide, and can your existing solutions be optimised further?

Lucidworks comments:

If you have a zero result problem, it's time to understand the revenue impact associated with that. Dig into your data and understand what's at stake. How many shoppers exit? How many decide not to purchase that product? How many never come back? You might be surprised by the size of the pie.

Conclusion

Whilst we started this report talking about the new-comers to online shopping, there is no doubt that optimising the site-search part of the puzzle can pay dividends. It is one part of the optimisation process. SEO, Payments, Fulfilment and CX all have their parts to play. We have seen varying levels of investment in the online space over the years and the current climate has shown that a strong digital presence puts retailers in a good position to weather economic storms.

The pandemic appears to have accelerated the shift to online shopping, only time will tell how major this shift remains. In the meantime, we need to remember one truth. It is retail; providing customers with what they want, where they want it and at the correct price is key.

Site-search is the shop assistant of the website; inhouse expertise to help conduct an informed sale.

Lucidworks comments:

The stakes have never been higher. Expectations may seem unrealistic. Driven out of a need and persisting out of convenience, shoppers are looking to online retailers first. If you can deliver on the customer's goal, understand their searches, and deliver relevant products, shoppers will reward you with their wallets. This is easier said than done for many lexical approaches and search teams tackling the longtail. It's time to look at the opportunity, power AI models with already collected behaviour data, and scale a solution that will deliver value to both the customer and business.

About Lucidworks

Lucidworks

Lucidworks offers the Connected Experience Cloud (CXC) that captures user signals from every action and applies them to digital experiences everywhere. CXC combines the power of search and machine learning to personalize experiences that meet employees' and customers' unique intent.

The world's largest brands, including Lenovo, Red Hat, Reddit and Cisco Systems rely on Lucidworks' suite of products to power product discovery, customer service, and knowledge management applications that delight customers and empower employees.

Learn more at Lucidworks.com.

About Garrett Schwegler:

Garrett Schwegler is the Program Manager for Digital Commerce at Lucidworks, the leader in AI-powered search.

Over the years he's led multiple teams and organizations through holiday preparedness initiatives for both e-commerce and omni-channel strategies. Garrett has also worked as a strategic consultant with Global 2000 e-commerce companies to improve product discovery.

In his current role he leads Lucidworks Digital Commerce team's initiatives to power a connected customer experience for some of the world's biggest ecommerce brands.

About IMRG

imrg

For over 20 years, IMRG (Interactive Media in Retail Group) has been the voice of eretail in the UK. We are a membership community comprising businesses of all sizes – multichannel and pureplay, SME and multinational, and solution providers to industry.

We support our members through a range of activities – including market tracking and insight, benchmarking and best practice sharing. Our indexes provide in-depth intelligence on online sales, mobile sales, delivery trends and over 60 additional KPIs. Our goal is to ensure our members have the information and resources they need to succeed in rapidly-evolving markets – both domestically and internationally.

www.imrg.org

About Andrew McClelland:

Andrew has over 18 years' experience in the digital commerce sector, helping businesses large and small make the most of the opportunities open to them, including how digital routes to market support and complement more traditional techniques, such as stores, sales teams and wholesalers. A respected specialist, Andrew often speaks at international events on developing digital strategies and has advised Industry, investors, Government and the European Commission on policy issues such as data protection, consumer rights, payments and the development of the digital economy.

Andrew is at the forefront of helping businesses trade through digital platforms.