Text search is dead; long live voice!

Self-service sucks

I distinctly remember the day online shopping lost its shine for me. I needed to buy my son some new swimming trunks for summer. I much prefer going online to visiting a store and I'm the kind of shopper who likes to research all options to make sure I am getting the best product for my needs.

In the case of swimming shorts it turned out to be a fairly long list of criteria: size, style, length, pattern, colour, cost, speed of delivery, cost of delivery, durability and comfort were all important. I went everywhere: Google web search first, clicking on Shopping images or brands I recognised in the SERPs; then off to Amazon to compare prices and find cheaper alternatives. I was evaluating information from a number of different sites and pages, from search results, refine options, product details pages, ratings and reviews and so on.

It took thirty minutes of precious time. 'Hyperchoice', afforded by the internet, lengthened the process; it was time-consuming and dull. I used to think searching, shortlisting and buying online was a great convenience when compared to having to schlepp to a store. Now, self-service sucks.

From DIY to DIFM (Do It For Me)

Like every other person I know, I dream of having someone permanently on hand to help; a willing servant who will take the burden of day-to-day tasks off my hands, so I can regain precious time to read a book every now and again.

What I need is an enthusiastic and uncomplaining butler-personal-assistant-best-friend. Someone who will work for a pittance, 24/7; whilst understanding, learning and remembering my changing needs and tastes in all their infinite complexity.

Enter the nirvana of the online voice assistant. Whilst not a new concept, it is an area in which current reality is very far from the ideal.

Voice will head towards mainstream adoption, fast!

The new standard for technology adoption to reach 50% is roughly five years, and OC&C predict that take-up of smart speakers in the home, such as the Amazon Echo or Google Home Assistant, will follow that trajectory. By the close of 2017, some 12% of US and 10% of UK households owned a smart speaker, and this will rise to 50% by 2022. Western markets are dominated by Amazon Echo, with 70% of voice speaker penetration, followed by Google Home at 24%. The first Chinese smart speakers, such as the TMall Genie, started shipping in China in the second half of 2017, and it is already predicted that the size of the installed base will be just below that of the US this year.

Even more surprising, is the data on the number of owners who have used their smart speakers to make a purchase: 44% in the UK and 22% in the US. What will doubtless be dubbed as v-commerce is valued at $2bn in US sales revenue today, predicted to rise to $40bn in the next five years. That number might be unremarkable in a US retail market worth $400bn, but there is consensus that the figures are much higher than researchers expect~~.~~

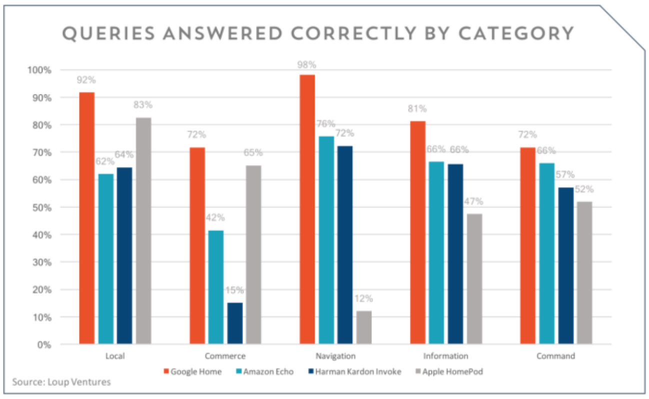
How we shop via voice interfaces today

That surprise is a valuable indicator of how we *feel* about the user experience as it stands today.

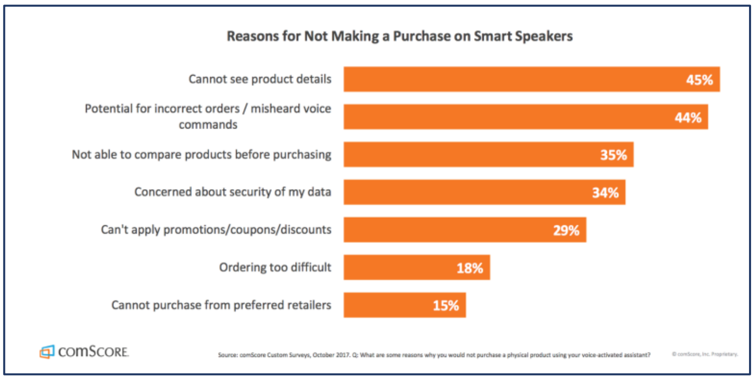
Users like voice interfaces because they are hands-free and faster than typing. Current use-cases for smart speakers focus on commands such as 'play', 'find', 'call' and so on. Short, easy tasks that take minimal effort to say, have unambiguous outcomes, and therefore have high potential for a successful result. Despite massive advances in speech recognition, we're still at the stage of barking orders at a box.

The voice experience is still a considerable way behind genuine, needs-based search queries or two-way conversation. Right now, voice users don't have confidence in any query that involves complex results.

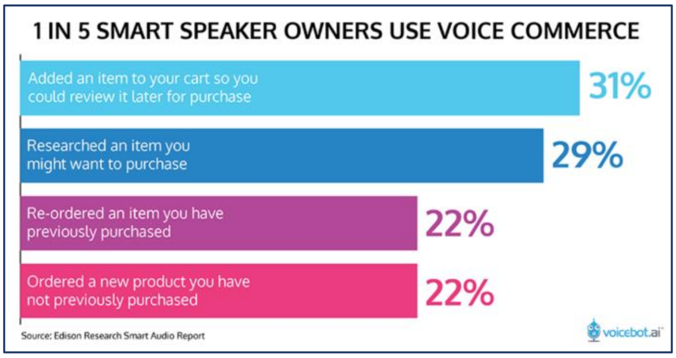
The voice shopping experience, in particular, is behind. This great usability study by Loup Ventures tested the accuracy of four smart speakers across 782 queries, and shows that 'commerce' queries form the lowest performing category.



As the ComScore data below shows, a smart speaker interface is also far more limited in its ability to present back a range of alternatives than an inherently visual screen; still has accuracy issues and doesn't allow for meaningful comparison of alternatives by the end user.



It's no surprise then, that the most common voice-driven purchases are standalone, low value items, such as groceries (20%) and entertainment (19%). Or that the [most common v-commerce behaviour] is adding a product to cart to be reviewed for purchase later i.e. via a screen.



<u>What happens when?</u>

Despite the caution around current usage behaviours, my twenty years in the world of digital have taught me that what seems like visionary tech one day (video calling, anyone?) often does become reality, and faster than we think. The rate at which natural language processing (NLP) technology is developing means a search request like the below, based on *my needs*, cannot be far away:

> *"Shopping Assistant! Please find me a pair of boys' swimming shorts. They need to fit a slim, 11-year old, be knee length, baggy as opposed to tight fitting, and preferably red, orange, or blue. Something fun like a shark pattern would be nice, but not essential. I am prepared to spend between £12 and £20, but I don't want to pay extra for postage. I can pick them up from somewhere near me next Tuesday evening, as long as it's within a 10-minute drive, or they can arrive at my home by next Wednesday. Also, I want some that won't fall apart after a couple of swims and washes. Tell me your top five suggestions."*

This is a far cry from the stilted four- to five-word text-based search term of "boys swim shorts 11yo" that I might use to start my research journey today, and would certainly save me an enormous amount of time and effort.

The type of results a user would expect go far beyond anything currently available. The ability to present back a set of options based on my precise needs takes us into a new realm of personalised search.

Current attempts to personalise a shopping journey tend to rely on common-sense assumptions. If I am unrecognised as a user, these are based on my browsing behaviour, or aggregated purchase data to enable suggestions such as 'people who bought this, also bought that.' It's so limited, and often leads to a frustrating experience. We all know that our needs as shoppers are complex, and vary dramatically depending on time and circumstance. Service design needs to take this into account. As Steve Krug, in *Don't Make Me Think* says:

> *"The more you watch users carefully and listen to them articulate their intentions, motivations, and thought processes, the more you realize that their individual reactions to web pages are based on so many variables that attempts to describe users in terms of one-dimensional likes and dislikes are futile and counter-productive."*

The beauty of voice search is that it allows us to surface the complexity of our needs, and quickly, by telling one agent exactly what we want. And whoever can meet our needs best will gain our trust and loyalty.

Currently, that service ability lies with the platforms, notably Amazon and Google. What then, for retailers? Why would I bother going to the ecommerce website of a department store such as John Lewis, or a specialist such as B&Q, when the technology platforms will take away a friction point that online retailers struggle with today: to help me find the perfect product quickly?

<u>Compete or cooperate?</u>

Amazon, as a retailer, clearly poses the most persistent threat. Not everyone needs to compete with them: those retailers that are a 'destination' through their specialism, product design or value for money (think Clarks, Ted Baker, even IKEA - all of whom sell own-brand product) will be able to retain their direct customers better than others. However, as Amazon continues to push its convenience agenda, thereby taking a greater share of shopper journeys, more and more retailers may find themselves having to list their catalogue on Amazon simply in order to access an audience.

As Amazon forces retailers into submission or obsolescence, the case to partner with technology providers has never been stronger. Retailers have long prided themselves on being the intermediary between product and purchaser that, through their own channels to market, 'own' the customer. Yet, in a digital world, multichannel retailers in particular are falling behind in the race to deliver what the customer needs and package it up in a way that is easy for an online audience to access. The challenge appears greatest at the 'top of the funnel'.

For example, retailers compete with 3rd party publishers, including social media stars, when it comes to providing for inspiration, advice and recommendations on what to buy. Quality content requires ongoing updates and maintenance, often a cost to the retail business whose ROI cannot be quantified in terms that satisfy the CFO.

The experience of searching and filtering on an ecommerce site always pales in comparison to that of Google or Amazon, leaving customers always slightly dissatisfied. In order to optimise their ecommerce experience, retailers are facing the increasing burden of managing master data; the kind of information that drives filter options for example. These can be highly manual and inefficient processes, and are also limited in scope: no retailer is able to power a search result as detailed as my search for swim shorts, when critical information - such as 'baggy' - is often lacking. In this example, a technology partner, however, might use a combination of image recognition technology to determine whether my swimming shorts are indeed 'baggy' and then pass through unstructured product specifications to find out their length, and compare this to the average height of an eleven-year-old in the UK to tell me if they are likely to be 'knee length'.

Put the technology challenges in the hands of the experts, and leave the retailers to do what they do best: putting the best product and range together to meet consumers' requirements.

This is quite radical stuff - no one plans to downsize a business, which is why much of the talk today is about how retailers address the challenge of becoming technology-led businesses. Yet, as retailers grapple with the issues of today, and disruptive technologies of tomorrow - such as voice search - then retrenching to the position of 'range specialist' and 'brand manufacturer' may present the only viable option for survival.