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THE RETAIL HIVE DIGITAL BOARDROOM

Using AI and Machine Learning to Improve
the Online Customer Experience



APPTUS

in association with Apptus

Welcome to the Digital Boardroom...

How can retailers utilise Artificial Intelligence (AI) and Machine Learning (ML) to improve online performance, without diluting brand identity and customer experience? This was the main thread of discussion during the Digital Boardroom hosted by the Retail Hive, in association with Apptus.

Involving retailers who had fully integrated AI into their online operations, as well as those at the very beginning of their journey, the boardroom provided a safe and secure forum for retailers to talk openly about their experiences with AI. The discussion brought some interesting points to the table from a wide range of perspectives and helped to overcome some scepticism toward the application of these technologies, whilst simultaneously unearthing top tips for overcoming the challenges many participants were facing.

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Discussion Overview...

Machine learning is a tranche of AI which is based on the idea that technologies can identify patterns in data, learn from these and subsequently make informed decisions with minimal input from humans.

The Boardroom discussion examined two major trends in the use of AI and machine learning within retail:

1. The application of technologies offsite including using AI to bid for Google shopping, SEO and other paid traffic.
2. Applications onsite to personalise and enhance customer journeys.

Participants were at varying stages of their AI journey, with some looking to simply learn how to use the technology to add value to their business, whilst others are already creating and building their own algorithms by employing in-house data scientists, or through external data science agencies.

What was agreed upon, however, was that AI, just like “big data” is a broad-brush, catch-all term - every retailer needs to drill down into what it really means to their business, fully understand the business benefits and be able to build a business case which supports the argument for ROI.

An application for AI is Apptus eSales which combines onsite search, list ranking and recommendations for products and content in a single unified solution. This has enabled retailers to deliver a truly relevant and personalised experience, which has proven to increase revenue and profit.

More basic things include Google Analytics360, and programmatic paid search activity, which recognises spikes in certain areas of their website and makes recommendations accordingly based on what’s happened overnight. They can, of course, choose to dismiss these recommendations.

One participant’s mobile site uses a basic recommendations service provided by Qubit Technologies which personalises the customers’ browsing experience by learning what they look at and recommending products based on previous searches and views.

LET'S TAKE A DEEPER LOOK INTO HOW ARTIFICIAL INTELLIGENCE CAN HELP RETAILERS TO OPTIMISE ONSITE TRADING

THE ISSUE: CONVERSIONS

If a brand is pushing a 15% search conversion rate, that means that many visitors aren't converting. What happens to these people and what's the experience they're taking away?

When using an algo negatively impacts experience...

The ability to deliver a good brand experience – putting products in a specific sequence on category pages – can be achieved by merchandisers, but if these search results are not yielding “good results” then that's also a poor brand experience for customers. Unfortunately, if recommendations are solely left to the algorithm, search results can look a little like a jumble sale, which is a risky business and can affect the user experience; creating a page, and an offering, that doesn't reflect merchandising instore, or retain the look and feel of the brand.

CASE STUDY

One retailer sells Apple products such as iPhones, iPads and accessories. They also sell “Big Apple” duvet sets with beautiful photography from New York city. Of those searching for “Apple” on the website, the majority are looking for Apple tech, and so using a rule to return iPhones and similar products first, seemed to be the right idea. However, what if you're one of the customers who is looking for the duvet set? Using this rules-based solution will suppress content which can have a detrimental effect on sales and profits.

Writing rules practically every day to ensure customers are getting what they're looking for when using specific search terms is tedious and time consuming and shortcomings can manifest themselves very quickly.

THE SOLUTION: CONVERSIONS

Retailers need to think about why a product is being recommended rather than simply accepting “that’s what the algo said” - an answer that will simply not be accepted when communicated with the wider business. One way to get around this is to look at lifetime value and overall satisfaction as soft metrics, as well as focusing on conversion.

But how to manage this? How much should we curate vs. letting the algo drive the merchandising?

From a KPI point of view, retailers might keep an eye on:

- Abandonment rate.
- Conversion across the site.
- Bounce rate.
- Where products are viewed but not bought (no stock issues but still no conversion).

Their algorithms recognise behavioural patterns and use banners where suitable to boost specific features. Trialling Apptus resulted in an increase in search conversion.

Apptus advise that an even better brand experience would result from giving an up to date, constantly changing, set of listings that respond to current trends. This is achieved through a combination of creative – trying to set what people will buy and what this says about the brand - against serving a good experience to as many people as possible, rather than trying to deliver a curated “great experience” to a smaller number of customers. Constantly varying the order of products, in line with the constant change in macro and micro trends, can give a more relevant experience to the majority.

CASE STUDY

An Apptus client was curating 20,000 products a week, manually. Today they curate 1-to-2 products per category - they have reached the confidence that a combination of being beautiful (brand experience) and selling (revenue) have met on the curve. How did they do this?

They started with recommendations - a manual set vs. an Apptus set - and quickly realised that the Apptus set won each time.

Things to think about:

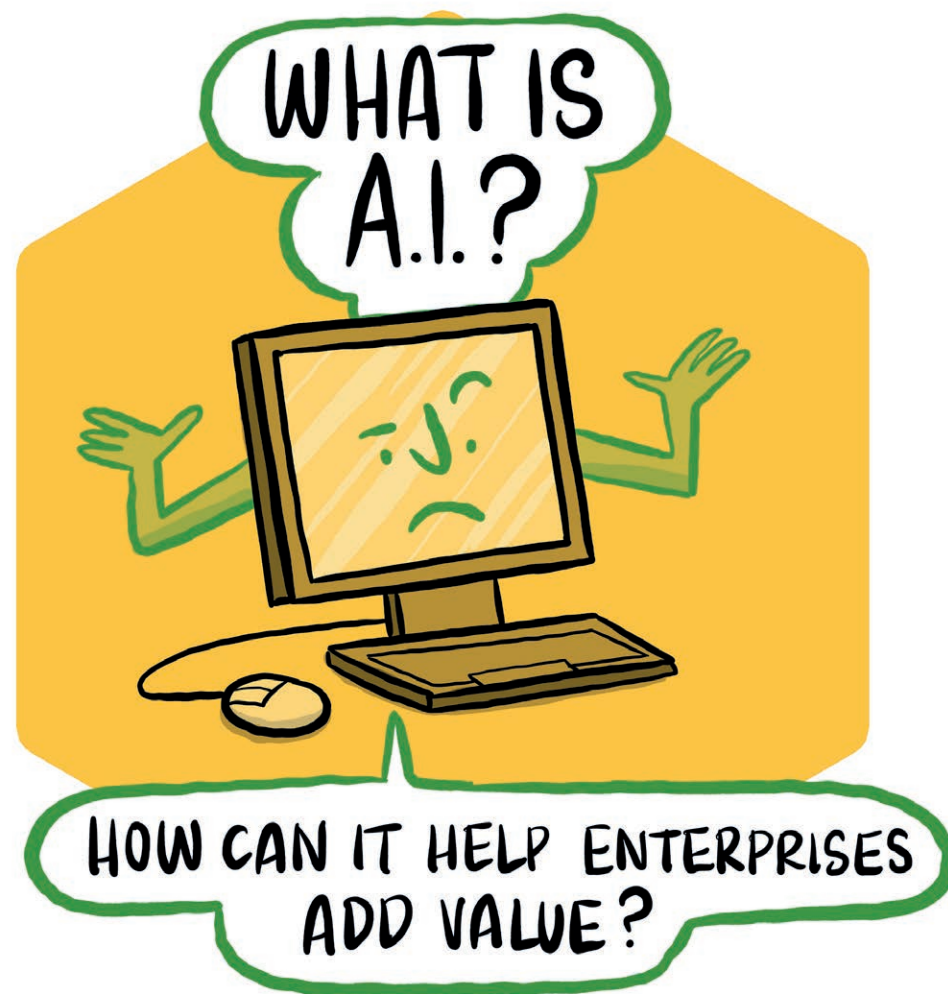
- Work with a technology or AI partner to understand why products are recommended so that you can learn how to tailor your offering (and learn more about your customers in the process).
- You can get more information through AI/ML than a human ever could – but don’t remove humans from the equation.
- Curating 20K products and various categories manually is a mammoth task. Use your tech to do the groundwork/heavy lifting and then refine it with “actual intelligence” for experience. This will give you the ability to provide a good brand experience.
- If not configured properly, some product recommendation tools will naturally select and showcase products that already sell well, but why give away valuable real estate to a product that will sell itself anyway? Configure tools and set rules to ensure you’re not cannibalising sales.

THE ISSUE: AI/ML PLATFORMS

There are so many AI/ML platforms claiming to be the answer to my conversion issues. How do I choose the best product for my business?

When it comes to relinquishing control of merchandising to a machine, some retailers have real concerns. There are many variations in machine learning types, from fully supervised to fully unsupervised. Major issues can arise if algorithms are set off and left to learn and make decisions without the intervention of human intelligence; especially if the machine is making decisions based on poor site performance.

Typically, recommendations engines geared towards conversion will aim to sell as many things as possible without considering any other metric. An issue with this model is that product recommendations will be made based on sales, pushing more popular products to the top of search results. This not only cannibalises sales by pushing products that already sell, it can also deliver an unrealistic representation of the brand or retailer. Why give away valuable real estate to sell something that doesn't need to be sold?



THE SOLUTION: AI/ML PLATFORMS

Test, test, test!

Retailers should look at their site holistically and set an overall objective from the start, and then test different recommendation engines against one another.

Before moving to Apptus eSales, one retailer tested different recommendation systems. They made an informed decision to test two at the same time, so they could compare performance. One performed better on recommended products, the other on overall experience. Apptus' application is appealing as it allows retailers to set parameters and let the machine run, but still intervene. The retailer can fully understand the algorithms that the tool uses, and tailor these specifically to their site and objectives.

Considering they still have lots of new products going live on their site, getting the right products in front of the right customers at the right time is crucial. They work on a sequence-based method, firstly recommending what they think is best and then bringing in AI later to take over.

Things to think about:

- Don't rely on AI to do everything – human interaction is vital to get the best of it. You need to understand what the algorithms are doing – it's you that will need to make brand decisions and present to the board.
- You can harness years' worth of knowledge on products and put this into AI.
- Recommendation based engines will try to sell whatever they can – especially if revenue is the main priority/driver.
- AI can aid with product lifecycle management through recommending products that need to be sold to avoid ending up on the clearance path with a stock surfeit at the end of the season.
- Continuity lines that aren't necessarily key to 'brand' can be pushed through AI/ML but it's important to set rules against this if it will disrupt experience.
- Other products take 'overall objective' into account – what do we need to review? Selling for revenue doesn't always work – make platform work for your brand.
- There are many free tools available on Google AdWords that you should make the most of first. This will allow you to get to grips with the basics before tailoring to your brand needs and investing money/time in a bespoke platform – If this is indeed the route you decide to take.
- Many retailers are creating their own algorithms using free tools in Google AdWords, although this does involve a lot of trial and error and requires time devoted to it.
- Google Premium and other such platforms are expensive and may require equally expensive service updates. However, whilst free tools are available, these use sample data, rather than proper data. It is questionable whether these types of tools would deliver a good result for your business.

THE ISSUE: AI LEARNINGS

Artificial Intelligence is diminishing actual intelligence. It's great that AI works but that doesn't necessarily mean that I'm getting smarter...

Artificial intelligence and machine learning can yield some amazing data and lead to essential understanding about customer behaviour and journeys. Retailers should want to capitalise on this and use this knowledge elsewhere to grow business.

However, there are limited applications available that both do a great job in collecting and using data and offer learning that can be used elsewhere. It is an interesting shift; as we rely more and more on tech, does that make us less and less knowledgeable and disempowered as a marketer? There is a level of nervousness that comes from relying on something without fully understanding it.

THE SOLUTION: AI LEARNINGS

Ask and learn!

Work closely with data scientists and technology specialists to really understand each step of the application, including how and why it works. Analyse results. Understand objectives. Only work with partners who understand your business objectives and can deliver a product which can help to empower you and your business. Feed into the engine and then draw logic out of it!

Summary...

The major challenge is using algorithms to tailor and enhance customer experience and brand identity online without diluting it.

Be guided by your data but don't blindly rely on it – test/review where you can. Don't just rely on algorithms to make decisions – take learnings from them and use the results to influence a wider view across the business. Communicate (in layman's terms) what you are doing with AI/ML to the rest of the business and why you are doing it. Get them excited about it! Rely on data, don't try to predict what it will tell you – just listen to the results. Don't forget actual intelligence – algorithms can only go so far: human interaction is still needed to ensure deliverance of brand experience.

Key Takeaways:

- Retailers are experiencing similar challenges. Whilst some are more advanced, in general there is a lot of ground still to cover for the majority when it comes to successful use of AI.
- Data is key! Most businesses will have a lot of data but don't rely on it as heavily as they should. Make data a part of the business processes. Be guided by the data and test wherever you can before you make informed decisions. Ensure data is available to all in the business to access and use.
- Understand your businesses and business needs. Businesses will have different experiences and results through using different tools and applications. Catalogues with larger SKU ranges will benefit more from AI and ML technology. There is huge value in testing and assessing algorithms side-by-side.
- There are many Vendors on the market who have a number of different expertise and case studies with different clients and prospects – don't be scared to get them involved in conversations... to learn more or speak to Apptus, contact Andrew Fowler on andrew.fowler@apptus.com



About us...

The Retail Hive

The Retail Hive is a business network, strictly for retailers only. It is a fairly new forum encouraging retailer-to-retailer networking and collaboration which has been created as an alternative to the “traditional” retail/ecommerce events/exhibitions that try to be all things to all people.

Through both Digital Boardrooms and Live Hive meetings, the Retail Hive invite members to collaborate, brainstorm ideas, share pain and find solutions to some of the most pressing topics affecting the industry today. The Retail Hive currently has around 1000 members from across leading retailers in the UK, the USA, the Nordics and Europe (including both B&M and pure play); around 30% of which are C-Suite.

Apptus

Apptus has been delivering search and optimisation related solutions from its base in the technology ‘hot bed’ of Sweden since 2000. Their latest product, Apptus eSales takes online merchandising to a whole new level. Apptus eSales leverages AI based technology and onsite behavioural data to automate the manual workload that has previously fallen to search optimisation specialists and visual merchandisers.

Apptus eSales removes much of that manual heavy lifting. Its AI capability automatically optimises the whole site according to a common business objective - optimising for conversion, revenue or profit. Predictive analytics guides strategic decision making, while easy to use ‘boosting’ tools ensure there’s still room for a human touch.



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