Gain an 'Unstructured' Advantage

RETAILERS CAN WIN WITH EXPERIENCE AND PERSONALIZATION INITIATIVES, BUT DOING SO REQUIRES A FRESH PERSPECTIVE AND NEW WAYS OF WORKING WITH DIFFERENT TYPES OF DATA. > By Jeff Warren

In today's connected world, consumers expect a personalized shopping experience, and it is up to retailers to either meet these expectations or risk losing potential interactions. According to a recent Oracle study (Retail 2018: The Loyalty Divide) that surveyed more than 13,000 consumers and 500 brands globally, only 32 percent of consumers reported that the retail promotions they receive are relevant, yet more than half (69%) said personalized offers based on their preferences is appealing. Not only are retailers struggling to deliver relevant, personalized offers, but they are continuing to grapple with major changes in their business models due to adoption of online and mobile shopping, and increased competition from online retailers and marketplace disruptors. It's more important than ever for retailers to adopt a data-led approach and operationalize advancements in retail science, including machine learning and artificial intelligence, to effectively and efficiently personalize their relationship with consumers on an individual level to drive top-line revenue and deliver exceptional customer experiences.

Imagine this: a customer we'll call Sarah Smith tweets an image of a blue dress and tags the retailer. The retailer sees the tweet, locates Sarah's information in their customer database, and sends her an email with a discount code specifically for the blue dress. Sarah, who prefers to shop in-store, uses the retailer's mobile app to check for her size at the nearest store location. Upon walking into the store, an associate asks her name, pulls up her profile, including search history and hands her the dress in her size — all without Sarah having to mention what she's looking for. The item fits perfectly and Sarah uses her email promotion to purchase the dress.

▲ Jeff Warren

The ability to analyze unstructured data coming from a consumer's social feed and online history, leverage those insights to create personalized promotions in real-time, track the redemption of offers in-store and see the full revenue impact of a campaign is the marketing Holy Grail. And while this level of omnichannel seamlessness may seem difficult to achieve, it's easier than most retailers realize once they define the business processes and requisite technology required to leverage the mountains of unstructured data at their disposal.

THE OPTIMAL APPROACH TO UNSTRUCTURED DATA

Unstructured data isn't a new concept but, until recently, it was extremely costly and time consuming to analyze this data, often with minimal return. However, innovations such as elastic cloud and improved computing power, open source resources, machine learning and artificial intelligence have made it easier for retailers to leverage data to improve processes across the retail enterprise, particularly in customer analytics and marketing strategies. There is more unstructured data in existence than ever before, thanks to social feeds, image meta data, chatbots queries and email correspondence (just to name a few), that retailers can — and should — be capitalizing on.

Unstructured data analytics projects can be daunting and often fail as retailers become overwhelmed with where to begin. The first step is to understand what your company is aiming to achieve, whether that's increasing sales or deeply understanding consumer sentiment. Declaring the business goal upfront will help identify what data the company should be focusing on, creating the ability to narrow the data pool and making the project more manageable.

CLEANSING AND CONSOLIDATION

The most important thing to realize is that unstructured data alone isn't useful. To effectively utilize, you must first normalize the data and then ultimately pair it with some form of structured data as a reference. The data cleansing step requires you to define item attributes, turning unstructured data into digestible, structured data. This is the most critical step of an unstructured data project because to receive accurate insights and forecasts, data attributes must be clean, precise and comprehensive. A company's unstructured data is only as good as its ability to cleanse and consolidate it with existing structured data.

The problem that many retailers face when analyzing data is that their attributes aren't clean, which leads to inaccurate insights on their performance, inventory, customer behavior, demand forecasts and more. Cleaning up attributes can be a nuanced and time-consuming task that, when done manually, can take a dedicated team and several days to complete. But the silver lining that has allowed unstructured data analysis to become more widely adopted in recent years is the existence of tools that utilize artificial intelligence and machine learning to automate cleansing projects. The result — a project that once took days to complete by multiple, high-value personnel can now be done in less than an hour, freeing up high-quality resources to do more innovative and meaningful work.

MAKING SENSE OF SOCIAL DATA

While social data is often the most utilized form of unstructured data for retailers today — allowing insight into consumer behaviors, brand sentiment and promotional opportunities — it can also be one of the most difficult to handle and frankly, very expensive.

A huge challenge retailers face is being able to reliably link a social conversation with the person who is ultimately making the purchase. For instance, Sarah Smith may be the user tweeting about her love for a blue dress. However, when the retailer finds "Sarah Smith" in their customer database to send her a targeted promotion, it's difficult to say with complete certainty that the person in their database is the same "Sarah Smith" that's discussing the product on Twitter. In that same vein, there are often times when retailer brand names are similar to product model names for a different retailer. Understanding which the consumer is referring to can often require external information that isn't alluded to in a social post.

This is where the pairing of unstructured data with robust, clean structured data plays a key role. When working with data, the rule of thumb is the higher quality you put in, the higher quality insights you will receive. And when these insights are coupled with machine learning capabilities, your chances of accurate predictions are increased.
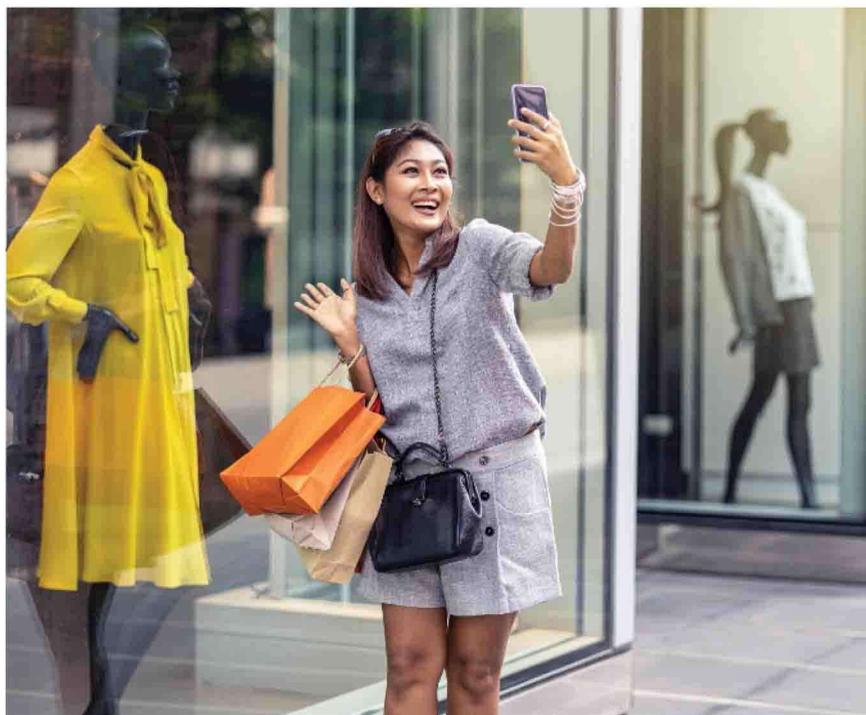
Another component of increasing accuracy is a large data repository. The more existing data available to compare against the unstructured project, the more likely it is to make reliable predictions based on past similar situations. For example, a retailer can pair it's structured POS data and loyalty profile information with unstructured social to better identify highly active social influencers for targeted promotions. The beauty of having a fully integrated, data-led approach from click to brick is a single view of customer, inventory, price and promotion which empowers retailers to deliver truly personalized experiences in near real-time.

DATA POWERS PERSONALIZATION AND LOYALTY INITIATIVES

Leveraging unstructured social data for retail marketing purposes doesn't come without it's challenges. It requires a strong understanding of your overall business goals, dedication to data cleansing and, most of all, persistence. Fortunately, cloud-based technology solutions alleviate many of the problems that once made analyzing unstructured data so difficult, and advances in machine learning, artificial intelligence and voice recognition will continue to improve these processes. Retailers who take advantage of unstructured data, whether it be social, image meta data, email or text messages, will be able to better capitalize on trends and offer targeted promotions, down to an individual level, that drive brand engagement, improve customer experience and increase the company's overall sales. **RL**

Jeff Warren is Vice President of Retail Strategy and Solutions at Oracle Retail.