

LOYALTY PROGRAM



DATA SCIENCE

When it comes to loyalty program science, Loyalty360 talked to Eoin O'Sullivan, Global Director of Analytics and BI at Snipp, to find out the latest trends that loyalty marketers should be aware of and incorporate into their respective business strategies.

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TRENDS IN LOYALTY PROGRAM DATA SCIENCE

1. The integration of data science into loyalty applications

2. The democratization/demystification of data science

Traditionally data science was a standalone process. The data scientist would receive data in a file, work their magic and return with some predictive analytics and then businesses would make strategic decisions based on this. One of the big new tendencies is to build and embed this type of analytics into loyalty program applications and processes. Once you produce this type of

predictive analytics, you can then move on to the final frontier of analytic capabilities: **prescriptive analytics**, which means that your loyalty application can make suggestions to take advantage of your stored models and analysis.

A lot of companies such as Tableau, Microsoft and Oracle are embedding data science capabilities into existing products. This is helping bring the data science toolkit into more easily maintainable and production-ready platforms, thus increasing the pervasiveness of data science. Another benefit of these enhanced traditional tools is they remove a lot of the barriers to entry into the realm of data science, thus enabling a new breed of analysts called citizen data scientists.

HOW THESE HELP LOYALTY MARKETERS TODAY

There are numerous ways that loyalty program applications with embedded analytics systems could, for example, automatically add a customer to a custom segment based on demographic information (age range, gender, zip code, etc...) or move a customer between custom segments based on historical activity (e.g. high value infrequent transactions). This will allow loyalty marketers to automatically offer more nuanced and focused incentives to these segments. Rather than a one size fits all offering, out of the box, you would have a maintained customer segment that responds best to promotions, a segment that responds best to sweepstakes and so on.



Embedded analytics systems could also provide a real-time recommendation engine based on market basket analysis (association rules) or churn alerts, which would notify client about any potential flight risks within the loyalty program and take proactive steps to increase the chances of retention.



The increasing pervasiveness of data science will allow loyalty businesses to become more data-enabled. I don't like the term "data-driven" as this takes away the crucial "common sense" or intuition element that an experienced marketer provides. When you are data-enabled you can prioritize and incorporate findings from data science into your campaigns to increase the chance of success.



The democratization of data science will allow the more technically-abled loyalty marketers to take advantage of the more sophisticated tools without having a programming background.

They can then use these tools to assist in answering “the why”, giving the client more information and insight into why certain campaigns are succeeding and others are not. This increased transparency will help the marketer guide the client in a direction that will increase chances of future programs succeeding.

WHAT IS BEING DONE WELL IN THE AREA OF LOYALTY PROGRAM DATA SCIENCE AND WHERE DO THE CHALLENGES LIE?

There is a nicely defined and established set of algorithms for the loyalty industry to use for churn, recommendation and segmentation. So, once you have your data in a good place and you have the appropriate technology in place, then the barriers to creating smart campaigns are nowhere as obstructive they used to be.

The challenges lie in the **quality and completeness of this data**, as the volume and variety of data increase in this age of big data the quality controls around this data are not always of the highest standard. You can't just drop an expensive piece of software on just any data and expect results; you must take the process of data cleaning and data quality seriously.

You also **need to model, integrate and augment data from a huge variety of sources** such as web analytics, social media, demographic data, or weather data in addition to the data from your core systems.

There is also the issue of **being data-driven vs. data-enabled**. When you are flying in an airplane, as good as the automation technology is, when critical decisions must be made it is a highly trained pilot that you want making those decisions. Data science, no matter how pervasive and sophisticated it becomes, should not be an excuse for abdicating decision making - it should only help you make better decisions.

WHY LOYALTY PROGRAM DATA SCIENCE IS SO IMPORTANT

It is so important to understand what is happening or what has happened via historical reporting and this traditional BI/reporting requirement will never cease to exist. However, to **take loyalty programs to the next level and create that sales lift**, you need to step beyond traditional operational reporting and into the area of predictive and prescriptive reporting.

It's a long-held truism that retaining customers is vastly more efficient than gaining new customers and you do this by building out quality loyalty programs. To **achieve and maintain quality loyalty programs** you will need to understand the “why” behind loyalty program success or failure.

Using data science to find the reasons behind a successful or unsuccessful program and using data science **to greatly enhance the chances of success**, is a hugely important means of building a strong and lasting relationship with your customers.

WHAT DO YOU FORESEE IN THE FUTURE FOR LOYALTY PROGRAM DATA SCIENCE?

The technology for the future of loyalty data science is in place right now, however in a similar fashion to the way automation in the automotive industry is gradually becoming mainstream; the same will happen with loyalty programs.

We are not too far away from a place where loyalty program data science technology will **work in a symbiotic relationship with the marketer**. Marketers will have their **productivity enhanced** with automation based on data science. **Deep learning technology** will continue to enable big leaps forward in loyalty program data science. This will allow customers to interact with a program's embedded chatbots in a very natural fashion and will enable **advanced sentiment analysis, facial recognition and image classification**, allowing marketers access age and gender information from a person's picture in a similar fashion to Microsoft's "https://how-old.net/"

As this intelligence becomes more embedded in our applications and we move closer to **real-time predictive analytics**, we will have modules which will prompt loyalty marketers to change incentives and distribution mediums while the campaign is in flight. For instance, if there is a shift in the demographics of the customer base in a loyalty program then the marketer could be prompted to change the communication medium to a different social media channel to obtain a 5% increase in participation.

SNIPP INSIGHTS
DATA. INSIGHTS. ANALYSIS

SnippInsights allows brands to tap into unprecedented information about their consumers and their purchase habits for a better understanding of what and why they're buying, and what can be done to keep them buying. SnippInsights features a robust set of off the shelf reports, powerful analytical tools and data visualizations collected from our industry-leading receipt processing engine, SnippCheck.

CONTACT US

✉ lets.talk@snipp.com

f www.facebook.com/Snipplnc

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