



Harnessing Big Data — Anonymously yet Effectively

Convenience store chain targets advertising based on predicted consumer behavior

by PAUL VACHON

Big data on consumers can reveal a lot, even when their names are omitted. That concept has been put to the test in the New York/New Jersey area, where an innovative tech company has paired up with a chain of convenience stores. Their synergistic efforts have produced a trove of insightful information — constructively used to attract a bevy of new customers.

A mere 24 months ago, QuickChek, a popular stop for “grab-and-go” meals and coffee, gasoline and lottery tickets, was just entering the digital age.

“An enhanced website and a digital app are things we’ve just started within the past two years,” says Eric Rush, the company’s digital marketing manager. While those efforts yielded some tangible benefits, company leaders thought they could do better, so QuickChek began working with PlaceIQ in the past year, “with the

idea of taking our digital marketing efforts to the next level.”

What followed represented a quantum leap in the world of digital marketing.

TRACKING MOVEMENTS

“QuickChek needed a better method to drive customers to its stores. Traditional methods like billboards, newspaper ads or even social media promotions are hit and miss, and usually produce uneven results,” says Duncan McCall, CEO and co-founder of PlaceIQ.

The PlaceIQ platform approaches these issues from the perspective of movement and location. It begins with constructing what McCall refers to as a “high fidelity map” of the United States. Unlike a traditional map, it’s a complex set of data that identifies every conceivable physical characteristic — for QuickChek, that includes factors such as all store locations (as well as those of their competitors), population

centers, major roads and parking structures.

The platform then overlays the map with movement data, which McCall defines as the opted-in, anonymous movements of over 100 million consumers in the United States — originating from consumers who have granted their smartphone apps the ability to track their location and then share that data with third parties. PlaceIQ has built relationships with a wide swath of app developers, allowing thousands of apps to be used for data collection.

“We don’t know their identities or their personal information,” McCall says, “but we can synthesize their movements with our mapping data to produce invaluable insights.”

Tracking movements can reveal where a consumer lives and works, when they have last been in a QuickChek location (or one of its competitors) and what routes they

usually drive. The data can then be segmented to target a select audience.

“Say we want to engage people who haven’t been in a QuickChek during the last 30 days, but who frequently drive near one. Movement tracking will tell us,” says McCall.

“Based on these behaviors, we can then direct advertising to the person’s smartphone that is highly customized and promotes a product or service that’s relevant to their needs.”

The model uses location and movement to predict consumer behavior and targets advertising accordingly. PlaceIQ also offers analytics which can examine customer counts and transaction volume during a given marketing campaign and compare them to a control period of identical length. That allows company managers to make comparisons and determine the program’s return on investment.

Rush appreciates the platform’s analytic capabilities. “We have sales periods that typically last four to six weeks. The system allows us to track unit movements both within and outside of an ad period,” he says.

“This also allows us to see a much closer correlation to our marketing investment than if we just put up a billboard and wonder how many people see it.”

INCREASED CUSTOMER COUNTS

Sophisticated software is producing an unprecedented ability to collect, sift and parse data from virtually any source, yielding increasingly accurate and valuable insights into consumer behavior.

The good news is that experts predict this pace of innovation will continue, offering even more stunning revelations. In their book, “The Second Machine Age: Work, Progress and Prosperity in a Time of Brilliant Technologies,” authors Erik Brynjolfsson and Andrew McAfee suggest that we’re in a “golden age” of innovation, and that this era of digital bounty is the legacy of the groundwork laid during the mid-20th century — the early days of the computer age.

The authors say that to be effective,

groundbreaking new technologies (which they call “general purpose technologies”) require complementary innovations — such as organizational realignment — to reach their full potential.

“Coming up with these can take years, or even decades, and this creates lags between the introduction of a technology and the productivity benefits,” the authors say. “Perhaps the most important



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complementary innovations are the business process changes and organizational co-inventions that new technologies make possible.”

Today two trends are progressing simultaneously: the leveraging of past innovations which allow recent ideas to take root, and the continuous brainstorming that keeps churning out things we’ll see over the next several years.

PlaceIQ has ingeniously tapped into that stream. Six years of innovation and refinement have enabled its system to perform as smoothly as a well-oiled machine, a fact not lost on clients like QuickChek.

QuickChek’s pilot of the PlaceIQ platform ran from Memorial Day to Labor Day last year; the company then took several weeks to analyze the results. Rush says the technique of segmenting and strategic messaging has markedly increased customer counts.

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had not been in a QuickChek within the previous 30 days [visited] one of our stores.”

UNDERSTANDING BEHAVIOR

QuickChek is currently analyzing the data from the summer pilot to determine how the program can be enhanced. As for the future, McCall lays out a multi-tiered model of how the data PlaceIQ gathers can be interpreted and used.

“The data we capture can be a horizontal business enabler, allowing us to understand more aspects of customer behavior,” he says. “For example, where do QuickChek customers go before or after visiting the store? How do these behaviors differ based on time of day, specific store location, etc.?”

McCall says the data can also be correlated with other sources of information (such as website “cookies”) to allow a company like QuickChek to deduce patterns and more effectively plan moves such as new store locations.

“The location data we garner can be useful in different silos of marketing.”

Stretching the idea even further, the analytics derived from the data can be leveraged to enhance website design, supply chain optimization and other non-marketing areas.

“It can help make proactive business decisions across an organization,” McCall says.

PlaceIQ’s platform can be effectively utilized across several retail verticals, even merchants without physical locations — PlaceIQ’s research has determined that data recording an individual’s movement represents a “digital signal.”

McCall offers an example: “Let’s say that from a person’s movements we can see that they do a fair amount of traveling. An online retailer can then target them with ads for luggage or other travel necessities.” **STORES**

Detroit-based Paul Vachon writes for various trade publications, in addition to feature stories for consumer magazines and books on Michigan history and travel.