Business challenge

From its inception, Pulsar has sought to use natural language processing (NLP) and image recognition to understand a wide range of online consumer trends, but it needed a technical platform that could support its pioneering vision.

Transformation

Pulsar uses the IBM® Watson® Natural Language Understanding service to analyze digital comments and extract information about trends, demographic preferences and more. With the IBM Watson Visual Recognition service, Pulsar can look beyond image captions for a more in-depth understanding of the way audiences interpret and respond to imagery.

Victoria Gray
Content Marketing Lead
Pulsar

Results

Drives brand performance
by drawing new insights from previously untapped sources

Gathers pure, unbiased opinions
from anonymous sources whose comments are unsolicited

Advances the quality of research
by humanizing the data and using it to tell a story

Pulsar

Drawing actionable insights from online dialog using IBM Watson solutions

Pulsar was established in London, England in 2009. It is an audience intelligence SaaS platform and digital strategy consultancy. Pulsar's software suite allows companies from a variety of industries to generate data-driven insights about their audiences, by connecting the dots between what they think (search data), what they say (on social media and web forums), and how they behave (through website analytics). It is one of the first companies in the world to bring all of the digital signals of an audience into one environment.

"At this scale, it was impossible to analyze data, and especially images, quantitatively. We wanted to tap into the conversations by drawing from different moments and understanding different user behaviors around specific topics or phrases, but we needed a way to make it manageable."

—Victoria Gray, Content Marketing Lead, Pulsar

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Tapping into a rich new source of data

Pulsar is a Software as a Service (SaaS) audience intelligence tool and a strategy consultancy team. It was born in 2009 out of Face, a market research agency. Pulsar helps its customers improve the way they understand their target audiences in terms of how they talk and behave online. In the past, Face gathered quantitative and qualitative data by engaging directly with consumers, conducting surveys and other research aimed at eliciting interesting, actionable insights from them. However, the tendency among consumers to share their thoughts voluntarily online presented the need for a new method of gathering this kind of data.

Posting images and opinions online – whether on social media or in the comment and review sections of other websites – has become a regular part of many people's daily lives. Whether it's about a specific product, a news article or an event, people are eager and willing to share their opinions with increasing frequency and candor.

Pulsar wanted to use all of this unsolicited – but often detailed – information to help its customers understand their digital audiences in order to fine-tune their marketing strategies, but the sheer volume and variety of the information was daunting. Much of it was presented in the casual, shorthand style that is native to social media. Some of it was embedded in smart, creative imagery, such as memes. Video, too, was becoming an increasingly popular way of sharing thoughts and opinions.

Victoria Gray, Content Marketing Lead at Pulsar, explains: "At this scale, it was impossible to analyze data, and especially images, quantitatively. We wanted to tap into the conversations by drawing from different moments and understanding different user behaviors around specific topics or phrases, but we needed a way to make it manageable."

Tapping into AI's potential

Pulsar selected two key IBM Watson products to power its SaaS tool and help Pulsar researchers: the IBM Watson Natural Language Understanding service and the IBM Watson Visual Recognition service, both of which are available on the IBM Cloud™. For the product and research consultancy teams at Pulsar, the accessible nature of Watson™ products was a particularly valuable factor in choosing the platform. "With Watson, subscribers to our SaaS tool don't have to come from a computer science or an AI background to understand what the data means," notes Gray. "Watson's APIs enable our researchers and our customers to easily gather actionable insights."

With the Watson Natural Language Understanding service, Pulsar can build queries that mine social media for timely new insights around specific topics. For example, during a norovirus outbreak in the UK, a government agency which uses the Pulsar audience intelligence tool asked Pulsar researchers to look into how the outbreak was growing.

By using the Watson Natural Language Understanding service to analyze what people were saying about their symptoms on social media, Pulsar was able to pinpoint where the next outbreak would occur. The government agency responded by deploying extra resources to the area in advance. "Knowing about specific symptoms and being able to preempt them was both a cost saver and a lifesaver because they were better able to get help to the right people at the right time," Gray explains.

Pulsar has also applied Watson technologies to a marketing solution for a large automobile company. The company's new vehicle, which was among the fastest that it had ever developed, was featured at a car show shortly after its unveiling. Pulsar helped the company analyze show attendees' social media responses to the new car and came to the surprising conclusion that its appearance resonated more strongly with the audience than its remarkable speed. "People mentioned features like the seats, the color and the lines,"

Gray explains. "That completely changed the nature of their marketing campaign for this particular vehicle."

The Watson Visual Recognition service also plays a key part in the custom market research Pulsar performs for customers. Gray elaborates: "IBM Watson gives us the ability to go really deep with regards to information around images. More than just analyzing the caption, the Watson service helps us understand the essence of the imagery users are sharing." This includes image features like color palette, lighting and objects present in the image.

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>
> —Victoria Gray, Content Marketing Lead, Pulsar

"It's also important to be able to bring in other signals such as the copy around the image, the context and the way people are phrasing certain words," continues Gray. "Watson allows us to provide the industry's largest number of tags per image,

which helps our clients and researchers get much higher granularity on an insight."

For example, a major retail bank recently sponsored an international sporting tournament. With help from the Watson service, the marketing team was able to use Pulsar's platform to identify the bank's logo placement in shared media pieces throughout the tournament, which helped gauge the success and potential reach of the sponsorship.

In another engagement, Pulsar was approached by a major sports clothing brand that wanted to prove its hypothesis around a new shoe design during the initial release. Pulsar worked with the company to tap into its target audience and evaluate the footwear images they shared most often. "We were able to show them that the majority of the footwear photos being shared bore very close resemblance to the new design being released," says Gray. "That allowed the brand to go to market with confidence, knowing they were on trend."

Studying human behavior in a new way

With Watson services, Pulsar is able to offer its customers a unique solution that offers key advantages over the competition. One advantage is that it's able to delve deeply into previously untapped sources. For example, by looking beyond an image's tags to its color, composition and mood, customers can draw out new insights that help them fine-tune the way they respond to their audiences.

Another advantage is its sheer power: with social media and online interactions like web forums and comments, the amount of data that needs to be analyzed is enormous. "That's some of the richest data on human behavior out there," Gray explains, "and Watson enables us to process it."

She continues: "People are generally acting of their own volition online - they're giving unprompted opinions, they're showing what they think about different topics, they're engaging in what they're passionate about. That's a key differentiator for us."

Using Watson services has helped bolster Pulsar's reputation as a leader in research of human behavior. "We're proud to work with the best technologies so that we can provide the most data available," says Gray. "With Watson, we were able to create something that's humanized. We're now able to tell stories through data, and that human element is our main differentiator."

Take the next step
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