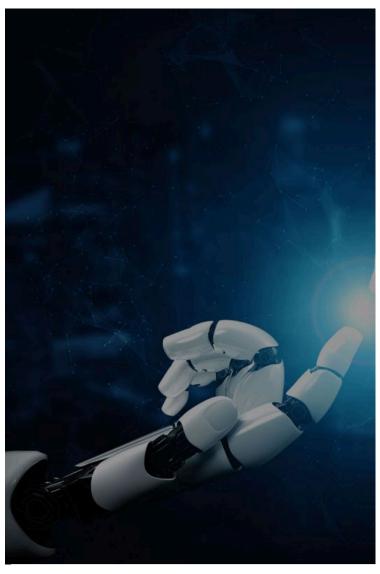
## AI and the future of intellig

SherloQ puts AI at marketers' fingertips



Overview

The advent of the intelligent website

Make ad campa

"Within five years, every website in the world will use so says Jacob Del Hagen, Co-founder and Chief Technology SherloQ, Inc, a marketing, advertising and technology cc Boston.

× Close

Despite the tremendous benefits of AI, the distribution and global ado frameworks continue to be challenges both in terms of understanding because of the perceived complexity of the technological implementative industrial shift is taking place within the agency and performance segments, primarily driven by internet advertising trends such as sear optimization (SEO) and search engine marketing (SEM).

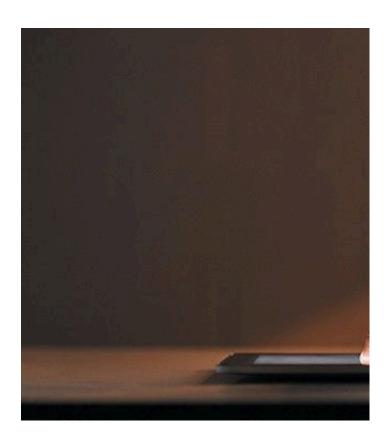
The issue is that websites are fundamentally stupid. They don't general intelligence to help companies drive business, despite their central rol marketing intelligence and commerce. For example, although agencies teams adopt machine learning for everything from data augmentation automation to predicting shopping behaviors, the technology often fail first-person data entered as the first step in the customer journey, leavincomplete or flawed.

Furthermore, when organizations turn to digital ad campaigns and rest major platforms such as Google and Facebook, they're relying on incor from algorithms that treat every lead as a conversion, whether it's spa a true customer. Even when these campaigns are infused with AI, toda platforms keep critical search term data and other information hidden that should own it, often citing privacy regulations.

The founders of SherloQ believe that businesses should be able to see generate insight from it. "There was a point when you could see the se were using coming to your website, but [Google and Facebook] started away years ago," says Jim Fitzgerald, Co-founder and Chief Marketing "As time has gone by, they've started to strip out a lot of the natural lause, leaving root terms with words missing. Marketers know that root to search, but they can't see how the consumer is really talking about the company."

This information gap has real-world consequences for businesses and when they use the most advanced performance marketing and digital:

For example, a business might have a great marketing idea that somel mark because it has no visibility into how customers actually search fc was the case for Hurley & David Inc. (HDAIR), an HVAC company that v ductless air conditioning units, known as mini-splits.



### **Sales Growth**

Sales growth for an HVAC company is 98%

"As third-party data beconfirst-party data is becomifirst-party data is becomifirst-party data from their best this data by using Sherlo(

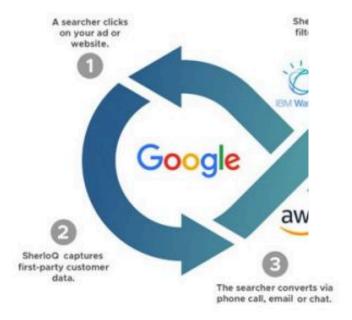
In other cases, the competitive landscape may be so fierce that a busi much intelligence as possible to know which of its ads are working, an particularly true in the personal injury legal field, where nationally rece the Law Offices of Mark E. Salomone operates. Although the business above average conversion rate, it needed more insight into which campits most valuable leads.

Without visibility into how its customers are searching, a business is of were partially blindfolded. And if, as the SherloQ team asserts, the future cookieless," it will further reduce the insights companies can glean from customers who interact with their websites in addition to creating sericompliance issues.

Unless, somehow, those websites can be infused with intelligence.



The advent of the intelligen website



highest value leads back into Google's Al.

SherloQ created a solution that builds intelligence into existing websites by seamlessly integrating IBM Watson® technology into the site, based on what it identifies as the four pillars of AI: automation, attribution, intelligence and marketing compliance. These AI facets capture, rate and analyze performance marketing and other lead-generating data. SherloQ uses the IBM Watson Machine Learning and IBM Watson Studio offerings to create the AI models that give any website what the company calls an AI Smart Core. This core allows organizations to gain insight and automate from their own performance marketing and other site usage data.

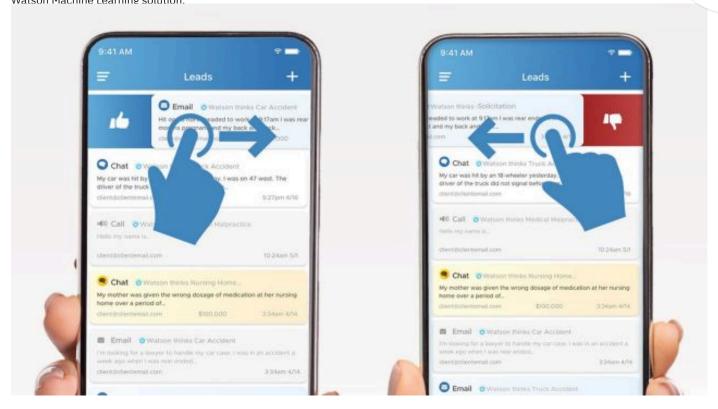
IBM was the clear choice for AI technology, according to Del Hagen. "Watson had an incredible ability to do natural language processing that was above and beyond anything else we saw," he says. "IBM had 20 years of experience; it was off the charts compared to other companies."

After installing a simple script through the use of Google Tag Manager (GTM), the SherloQ solution captures first-party customer data when a searcher clicks on an ad or a website. When a company adopts the SherloQ solution, the IBM Watson Natural Language Understanding (NLU) and IBM Watson Natural Language Classifier (NLC) services analyze calls, chats, texts and email transcripts in real time to identify keywords and score them based on relevance. This classification helps the business sort and organize leads and provides enrichments to Ad Rank scoring, which is a value that determines which ads are the highest performers in relation to others.

"What's remarkable about this entire process is the ability to just plug this into a Google Tag Manager and be up and running the same day, with all this technology and AI, in such a simple way," says Fitzgerald.

The accompanying SherloQ app gives the business a dashboard view of its aggregated leads, as well as scoring. The business receives a daily intelligence report that it can use to reevaluate performance marketing campaigns, website content and SEO.

The AutoAI feature within the IBM Watson Studio application automates the evaluation and selection of the best performing models with one-click deployment from the IBM Watson Machine Learning solution.



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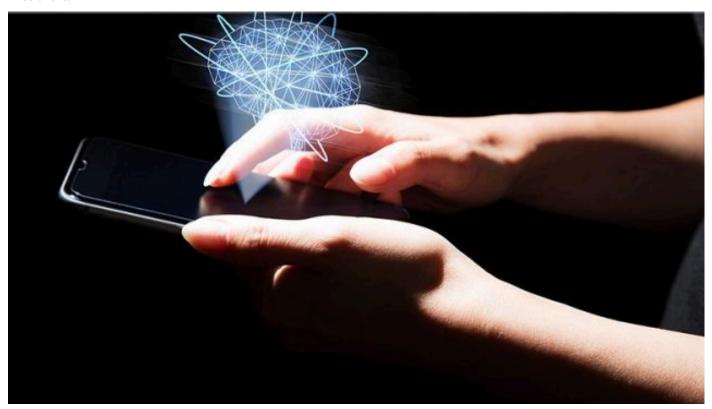
#### Jim Fitzgerald

Co-founder and Chief Marketing Officer SherloQ, Inc.

automatically sends the highest value leads back into Google or other third-party platforms as conversions, training their AI tools to weed out less valuable leads and clicks.

The Ad Rank score provides a filter to ensure that the right information goes back to the search engine and helps boost the ad's effectiveness. "That's what helps us get more of the right customers for our clients and makes the advertising ROI go to a positive net gain and grow."

The patent-pending process of swiping or assigning a value to a lead from an inbound website transaction has much wider ramifications for AI and machine learning technology. By scoring the leads, SherloQ is distributing the machine learning training process to non-data scientists. This allows SherloQ to build modules for entire industries or apply the technology to large scale enterprises for a fraction of the cost of traditional implementations, dramatically reducing a barrier to entry for custom internal models and AI solutions.



# Make ad campaigns work smarter, automatically



The SherloQ solution, powered by IBM Watson technology, helps businesses regain control of their customer interaction data and use it to drive performance marketing improvements. Unlike other keyword tools or third-party ad services that strip out valuable search data, the SherloQ solution uses AI to provide insight into consumers' search journeys.

"As third-party data becomes more restrictive, first-party data is becoming essential. Marketers need to take control by utilizing first-party data from their best customers, accessing this data by using SherloQ with IBM Watson," says Fitzgerald.

In the case of HDAIR, the HVAC company that wanted to sell more mini-split units, the SherloQ AI solution revealed that people were searching for "A/C for small attic space," "ductless air conditioning" and other similar terms rather than on the industry term "mini-split." Armed with this knowledge and the power of IBM Watson NLU and IBM Watson NLC services, the company's ad agency rewrote the mini-split landing pages and ads to include these natural language search terms.

Prior to launching the SherloQ solution in June of 2019, the company sold approximately USD 105,000 in mini-split units. By August of 2019, it had sales of more than USD 208,000, a 98% increase in just three months. Further analysis showed that the increase was mainly driven by organic searches, not from ad traffic.

Similarly, when the Law Offices of Mark E. Salomone adopted the SherloQ AI solution, the firm took its already successful business to the next level. Some insight was very simple, but critical. For example, it discovered that many people searched for its office using voice-to-text on their phones, so "Mark E." was often interpreted as "marquis" or "marquee," which prompted the company to adapt its SEO keywords.

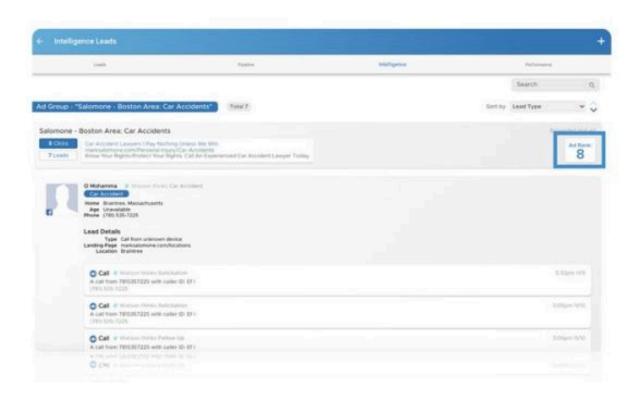
Of greater import was the significant improvement in the firm's click-to-lead (CTL) conversion rate. Within a month of installing the SherloQ automation solution in August 2019, it increased its already above-average conversion rate to 28.92%, in an industry where the average CTL rate is 6.98%. By using the SherloQ solution dashboard, which

provided a breakdown of how each of its ad campaigns performed, the business can quickly visualize which of its campaigns were most effective in turning leads into customers.

Although the dashboard was useful, it was the AutoAI and Ad Rank score features of the solution that pushed this insight back to Google to further refine the firm's ad campaigns and grow its CTL rate. It recorded its highest rate to date of 46.75% in November 2019, and it has remained over 40% throughout 2020. In fact, the firm had to decrease its TV advertising because of the significant influx of potential new clients resulting from its improved digital advertising efforts.

In late 2020, SherloQ received a patent-pending notification from the US Patent and Trademark Office for its methodology for training machine learning models through its app and dashboard interfaces. This methodology empowers its customers to train the AI model each time they swipe left or right on the app. This puts power of machine learning and AI into the hands of small and medium enterprises that could not otherwise think of using in-house AI solutions to empower their advertising efforts.

"We believe changing how a website core operates is the key to the global adoption of AI," concludes Del Hagan. "We're building the world's first AI Smart Core with IBM Watson, which is what makes the website intelligent and gives business users the ability to use AI in a very straightforward way."





## About SherloQ, Inc.

The founders of SherloQ [2] launched their SherloQ platform, powered by IBM Watson, in 2016. SherloQ applies AI and machine learning to customers' website and ad campaign data to generate real-time, actionable insight to increase the effectiveness of digital marketing efforts. Based in Boston, SherloQ employs approximately 50 people.

#### Solution components

IBM Watson® Machine Learning	$\rightarrow$	IBM Watson Natural Language Classifier	$\rightarrow$
IBM Watson Natural Language Understanding	$\rightarrow$	IBM Watson Studio	$\rightarrow$

## Take the next step

Scaling AI at Lufthansa  $\rightarrow$ 

Fresh insight for fresh water  $\rightarrow$ 

The business value of AI  $\rightarrow$ 

#### **Footnotes**

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