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Search engines are the starting point for many digital experiences, so it’s imperative for the engine to understand user intent and maximize the relevance of the results it delivers. Our client, a major search provider, wanted to enhance its map search results so that search accuracy and user experience could both improve.

Standing between the client and this goal were data infrastructure challenges. There was a need for

new ways to curate, qualify, and activate user data to refine the results served to users. The client also needed the capability to use new data coming in to continuously optimize search results.

Centific was engaged to implement a methodology that leveraged machine learning and big data, complementing these new capabilities with access to a human network that could reliably train the system.

10

%

improvement in search accuracy

3.5

%

market share increase

300

venues with improved map functionality

Key Successes

- Increased map search accuracy to 98 percent
- Enhanced the map search experience through AI-enablement services
- Improved venue map functionality for more than 300 unique locations

AI-Enablement

To function successfully, a machine learning platform needs a large body of data on which to be trained. To make sure the system had the quantity of data necessary to produce more accurate results, the Centific team gathered map data for every city in the US, as well as 12 other major markets around the world.

Once this data was curated, quality assets needed to be separated from unsuitable assets – if not,

the AI would be learning on bad information, which could result in inaccurate outputs. Centific leveraged our proprietary OneForma crowdsourcing platform that taps into a global network of data specialists and judges. These members of the team collect, label, and validate the data assets used for training, ensuring that unsuitable data is filtered out before it can impact the platform.

Intelligent Search

Once it was clear what the client (as well as customers) consider “relevant” in search results, our team leveraged the proprietary OneForma platform to source, train, test and manage a global crowd of judges to provide curated, relevant data.

The client engaged Centific to enrich and validate the 100,000+ business entities with the highest internet impressions. Our team took over the process, implementing this framework and helping to achieve a data accuracy of 98 percent.

Venue Map Enrichment

Beyond search, our team utilized OneForma with AI features to help enhance other aspects of the client’s maps service. In particular, large venues like airports or malls created some distinct issues, including improper visualization, lack of informational assets and unintuitive search functionality.

To solve for this, Centific provided an end-to-end methodology and took comprehensive ownership of a range of tasks, including the research and capture of multi-floor indoor maps, shop directories, suite numbers, and telephone numbers. Aerial photography resources allowed the team to validate the visual suitability of the enhancements and the accuracy of the search results, to ensure user engagement and satisfaction was not compromised.

To date, Centific has curated over 300 venues using this framework.

Search Engine Transit Routing

To aid maps functionality, Centific validation experts trained the AI to deliver more effective routing

suggestions based on several criteria, including navigability, relevance, and accuracy. Judges built a workflow that identified and rated routes accessible by public transportation in multiple markets.

Results

These efforts, when applied, provided a greatly improved user experience. Users can now more easily find the places they want and have a more precise understanding of how to get there, how locations are laid out, and a range of other types of critical business or venue information.

The improved user experience drove a 10 percent increase in search accuracy, to 98 percent, and the client experienced a 3.5 percent growth in market share.

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