Yelp Inc. is a community-driven platform that connects people with local businesses. Millions of people rely on Yelp for useful and trusted local business information, reviews, and photos to help inform their spending decisions. Now in numerous cities around the globe, consumers turn to Yelp to find businesses in their neighborhood.

The Challenge

When Yelp wanted to expand beyond the U.S. and Europe, it began to study launching a site in Japan, another large market with consumers who are passionate about local businesses from sushi bars to nail salons, contractors to dentists. However, at that point, Yelp had only dealt with European languages. Asian languages like Japanese are more challenging since they often don't use spaces between words — and identifying words is necessary for the search capabilities Yelp uses to ensure community members find businesses across numerous categories and criteria.

Group Product Manager of Search and Data Science at Yelp, Travis B. and his team realized they needed to create a polished product that would encourage immediate communitybuilding among Japanese users. The team at Yelp determined they needed a high-performance linguistic analysis system that would meet these requirements:

- Accurate tokenization (breaking text into words) and part-of-speech tagging for Japanese
- Linguistic processing that would not degrade system performance when added to every search query
- A system that could scale with Yelp's international expansion plan and improve outcomes for other languages beyond Japanese

The Solution

Two factors led Yelp to choose Babel Street Text Analytics for linguistic processing:

Number of languages supported: Yelp didn't find any other uniformly high-performing package



that offered the same functionality and number of languages (40+) as Text Analytics. With Text Analytics' language coverage, Yelp engineers would not have to integrate multiple language packages into the code base.

Product Support: Yelp valued the support offered by the Text Analytics team, which would have been unavailable from open-source linguistics packages.

"These [other] packages had pretty good quality compared to Text Analytics for certain languages, but we would have had to stitch them together, and we wouldn't have had someone to turn to when there was a problem," Travis said. "Text Analytics' support and guidance was very helpful. There were a couple of instances early on regarding the best way to implement Text Analytics to optimize performance. Their support team helped us get Text Analytics performing the way we wanted. If we had gone with multiple, different packages, it would have been a lot of debugging work for our engineering team."

After adding Text Analytics to Yelp's search, Travis reported, "We were able to get our internal assessment of search quality to a point where we felt comfortable shipping the product. As we measured how users engage with search results, and from human evaluation, the improvement is due to fewer misinterpreted search queries."

"If we misunderstand the language, and ship core functionality that reads as broken in a local language — it makes us look like a company that doesn't understand the local customs and languages and makes it hard to build a community of local users. We rely on local people who are passionate about their local businesses, so it's doubly important to get this right."

The Result

Yelp Japan has been well-received since it launched, and has been one of Yelp's fastest growing international markets. Since then Yelp, has used Text Analytics in many languages for Yelp search and Yelp highlights functionality.

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