Improving Local Business Information Relevancy for Search Engines

ZEN3

When it comes to major corporate enterprises, we can generally rely on search engines to provide accurate and up-to-date information. These larger companies are far more likely to be web-savvy and carefully curate their online presence, self-updating key contact, location, and service/product information.

These data points are vital for determining which entities are relevant to a given user query, especially when a user is searching for services in a targeted geographic area, as with a map-based search.

Local businesses, however, are another story entirely. Including everything from mom and pop stores to small restaurants to neighborhood barbers, these diverse and sprawling entities present a much more complex challenge for search engines. Small, local businesses are much more likely to have little or no web presence. Any information they do have is at a much greater risk of being out of date. Often, any information that does appear on these businesses is user submitted and potentially unreliable. Meanwhile, the nature of these types of services means users are often searching for a highly specific sort of service within a tightly focused geography.

As such, search engine operators must take far more proactive efforts to ensure that local business entities are associated with relevant queries. High-impression search results, accurate and highly relevant, are the ultimate goal for search engine operators in a highly competitive marketplace. In pursuit of this competitive edge, there is no substitute for human review teams for ensuring relevance in local search results.

Our Client

Our client, one of the Top 5 tech companies in the world, recruited Zen3 to work on optimizing the substantive and geographic relevance of local business search results generated by their popular global search engine (hundreds of millions of users per month).

Objective

The improvement of local business search results through human review of algorithmic determinations of relevance for local businesses relative to user queries.

Locally focused queries require special attention to subtle differences between business categories that aren't always picked up by algorithms. A search for "Fast Food near me" needs to not return grocery stores. A search for "Hair Salons" shouldn't return a collection of beauty product supply stores. Making these distinctions correctly and consistently requires skilled analysts capable of making a huge volume of judgment calls based on evaluation rules that are rigorously applied by the entire team.

Careful attention to local search relevance drives immediate value not only by improving user satisfaction, but through labeling searchable data with precise, geographically-specific information with longer term analytical value for search engine operation (better data-sets for training even better algorithms).

Our Services

Zen3 team is responsible for managing a targeted effort to enhance the quality of datasets used for training our client's search algorithms, validating output with research as necessary. Our team of 45+ analysts continuously evaluates data and provides actionable feedback on the relevance of local search results to user queries. In addition to customized training on hire, all analysts receive regular refresher sessions as the imperatives surrounding relevance evaluation shift.

Project Challenges

Our Analysts must understand vital differences between geographic markets and service categories, carefully applying client-provided rules for analyzing result relevance. Subtlety is also required when analyzing the search results themselves: analysts must carefully consider the full intent behind each query. And the need for fresh analysis is constant: every change in the digitized map for a given area requires fresh analysis to be undertaken.

Meanwhile, the dynamic nature of both local businesses and client evaluation standards requires a systematic approach to ongoing trainings, refreshers and calibrations.

Best Practices and Solutions

Zen3 took on this initiative with the understanding that a dynamic, global-scope effort like this requires meticulous commitment to a proven portfolio of best practices optimized for supporting complex, large-scale data optimization projects.

Carefully-tailored talent sourcing stands at the core of this successful effort. Zen3 understands how to support large technology projects that require thousands of interviews, hundreds of hires, and a deep candidate database. Our recruitment processes are designed to get the right candidate the first time. We apply carefully tuned screening processes, task-based aptitude tests, and behavioral interviews when selecting candidates. Thoughtful attrition management prevents knowledge-bleed and encourages retention. To that end, we employ rewards and performance honors, professional development opportunities, and more, all to ensure resource retention, motivation, and a genuine chance to grow.
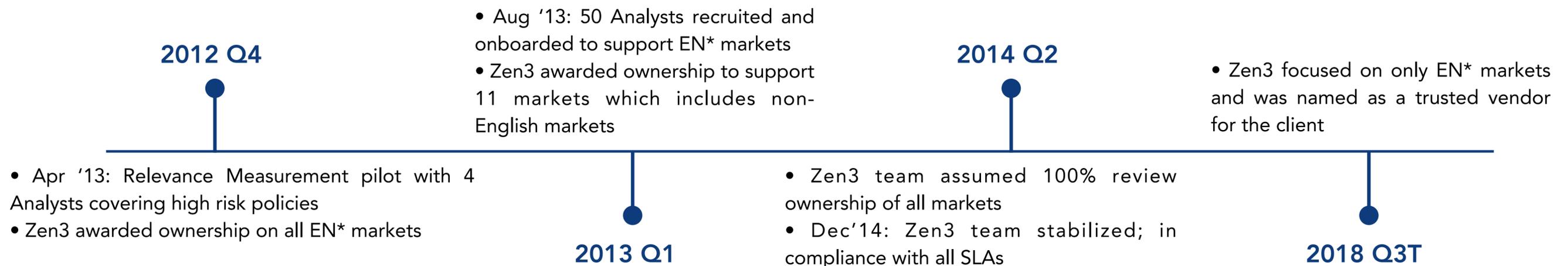
These hires are integrated using a proven training methodology backed by customized in-house training tools. We strategically cross-train our resources on key workflows to build out a flexible, resilient roster. Smart roster management, forecasting, and scheduling based on inflow trends ensures responsiveness and stability, even when profound operational challenges emerge. Ongoing training and work audit procedures ensures that professionals keep pace with shifting project requirements and best practices.

Finally, we support this effort with a detail-oriented approach to managerial requirements. We employ a multilevel governance model to ensure seamless delivery and quality, even in the face of uneven workflows and shifting operational requirements. Regular review of key performance metrics ensures our consistent fulfillment of project requirements.

Outcomes

- Team consistently exceeds client-specified Quality & Throughput targets in all relevant task areas
- Efforts fully compliant with client requirements over last 4 quarters
- Provision of more accurately and deeply labelled data for use as an algorithmic training dataset improving the client's map-related search function

Project Timeline

2012 Q4

- Apr '13: Relevance Measurement pilot with 4 Analysts covering high risk policies
- Zen3 awarded ownership on all EN* markets

2013 Q1

- Aug '13: 50 Analysts recruited and onboarded to support EN* markets
- Zen3 awarded ownership to support 11 markets which includes non-English markets

2014 Q2

- Zen3 team assumed 100% review ownership of all markets
- Dec'14: Zen3 team stabilized; in compliance with all SLAs

2018 Q3T

- Zen3 focused on only EN* markets and was named as a trusted vendor for the client

Sourcing Talent

Screening: Translating job descripting into strategic plan for a talent searching employing personnel databases across various key parameters; pre-screen resumes with relevant data curation experience.
Interviews: IQ assessment test with 40 questions; 5 case studies specific to local, segment specific data; market & language knowledge, fitness assessment.
Training: Tools; Process-specific scenarios using actual project tools; qualification & feedback; retraining & requalification if required.
Onboarding: Induction; system alias creation; waivers and NDAs

Training an Adaptable Team

Ad Relevance Training Model

- In-House Training Team to build client-specific knowledge
- Client proprietary task management system/ tools training
- Visual Knowledgebase
- Internal training tools (visual workflows, FAQs, calibration notes, etc.)
- Auditor driven cross-trainings

Training Impact

- Vendor team and client's process alignment within 3 weeks
- Week on week reduction in error pattern by ~20% due to weekly calibration
- RCA & Error pattern identification enables team to exceed throughput SLA
- Cross-training and pattern identification enabled team to handle spikes up to 2x of forecast
- Training methodology resulting in over 96% quality across all workflows over last 3 quarters

Execution

Roster Management

- Inflow forecasting based on client inputs & trends observed over the past 4 quarters
- Staffing based on resource capabilities and inflow trends
- Buffer bandwidth maintained on floor to support any spikes

Communication

- Zen3 auditor DL to ensure streamlined communication between Zen3 and client team
- Weekly status review & calibration; Monthly Business Review
- Daily Scrums, weekly 1:1 between auditors & analysts
- Daily shifts handovers; ad-hoc knowledge transfer sessions within Zen3 auditor team

SLA (Service Level Agreements) & Metrics

- Best practices enable us to meet and exceed SLA's and targets • Bulk workflow SLAs: **Quality >96%, Throughput ~150**

Caliberations and Feedbacks

- Ad-hoc client support for any ongoing package issues
- Calibration calls with client focused on analyst/auditor mismatches, helped improve and sustain delivery quality above 96% across all workflows
- Internal 1:1 with analysts to discuss areas of opportunities, error trends and policy updates
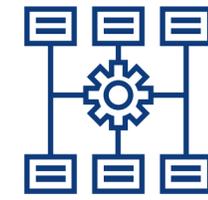
Governance Model

Delivery Quality Assurance

- Working closely with client's local search knowledge team to map ambiguity/gaps in result relevance
- Daily feedback to analysts
- Root cause analysis for issues

Team Management

- Strong hiring processes
- Knowledge management; in-house training material
- Effective collaboration
- Low Attrition
- SLA focused

Project Management

- Internal & external stakeholder communication
- Bi-Weekly review and calibration
- Quarterly business review
- Scorecards/Dashboards

Key Stats

4M+
Queries analyzed manually in last 4 quarters

4
English Markets

100%
SLA Compliance

96%
Quality Across workflows

48
Team Strength

Support Type

- Parsing and categorizing user queries, analyzing intent & precision related expectations, measuring relevance of results on search engine and Map-Application
- Gold Hit creation

Content Type

Local Intent Queries - Explicit | Implicit | Specific Target Location

ZEN3

Contact Us

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