

Groupon Finally Explains Why We Showed Those Offers

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ABSTRACT

Groupon has a large inventory of offers as varied as local taquerias, massages, concert tickets, and trips to Costa Rica. Our Search & Recommendations team continues to develop algorithmic recommendations systems, machine-learned query understanding models, and increasingly sophisticated personalization and sales conversion estimations. Across an inventory of millions of offers, including many highly localized and geographically-specific ones unique to Groupon's Local business, we strive to balance inventory exploration and matching our users with the exact right item. Our Recommendations models take a variety of factors into account so that we can make the most relevant suggestions to our customers in their neighborhood, or while traveling in one of our hundreds of domestic and international markets. Our system must index millions of items, including the many specific to a user's location; score the deals based on estimated conversion; and finally make adjustments for personalization, exploration, and diversity before delivering our ranked list of inventory to the platform. Yet despite our efforts, many of our customers are unaware of how highly considered their Groupon App and Emails are. In numerous customer interviews we found a huge perception gap that had to be addressed. Customers expressed that our central scrollable home feed felt "cluttered", "disorganized", and "like a garage sale". It was clear to us that the next great sophisticated recommendation feature meant nothing if our customers couldn't appreciate it. Collectively, we realized that we were missing a key communication with our customers. Customers of large internet marketplaces--whether eCommerce, Social Media, or Digital Media--have become accustomed to explanations or qualifications for the recommendations being shown to them. These often take the form of widgets or collections/carousels with titles that explain the grouping such as: "Because you watched 'Pulp Fiction'" or "Your friend liked this post by Cardi B". Our team decided we could demonstrate our own consideration logic to customers, explain the reasoning of their deal feed, and hopefully encourage them to interact and personalize their experience more. Because of the amount of data being considered to drive our recommendations, our team had to develop a system which could generate multiple personalized explanations, score them, and budget the various messages with the deal feed.

CCS CONCEPTS

- Information systems • Information retrieval
- Retrieval tasks and goals • Recommender systems

KEYWORDS

Relevance; Search; Recommendation

ACM Reference format:

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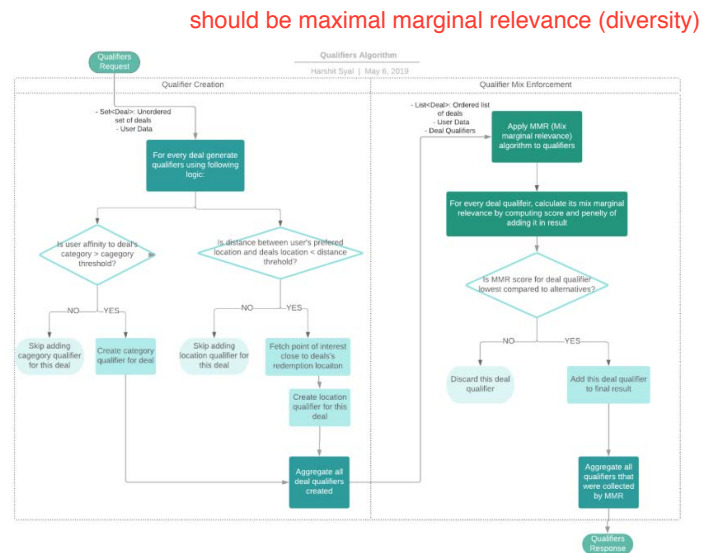


Figure 1: System Design of Category and Location Qualifiers