Learning to Search More Deeply

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Problem:
Google search provides unrepresentative search results in terms of race or gender, and it fails to provide satisfactory results to minority consumers.

Goal:
- Imitating Google Search Engine
- Quantifying Human Inputs
- Incorporating Human Inputs to Construct New Search Engine
- Experimenting New Engine and Comparing with Google Search

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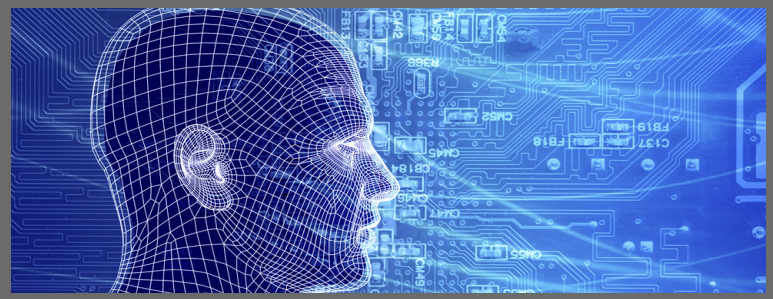

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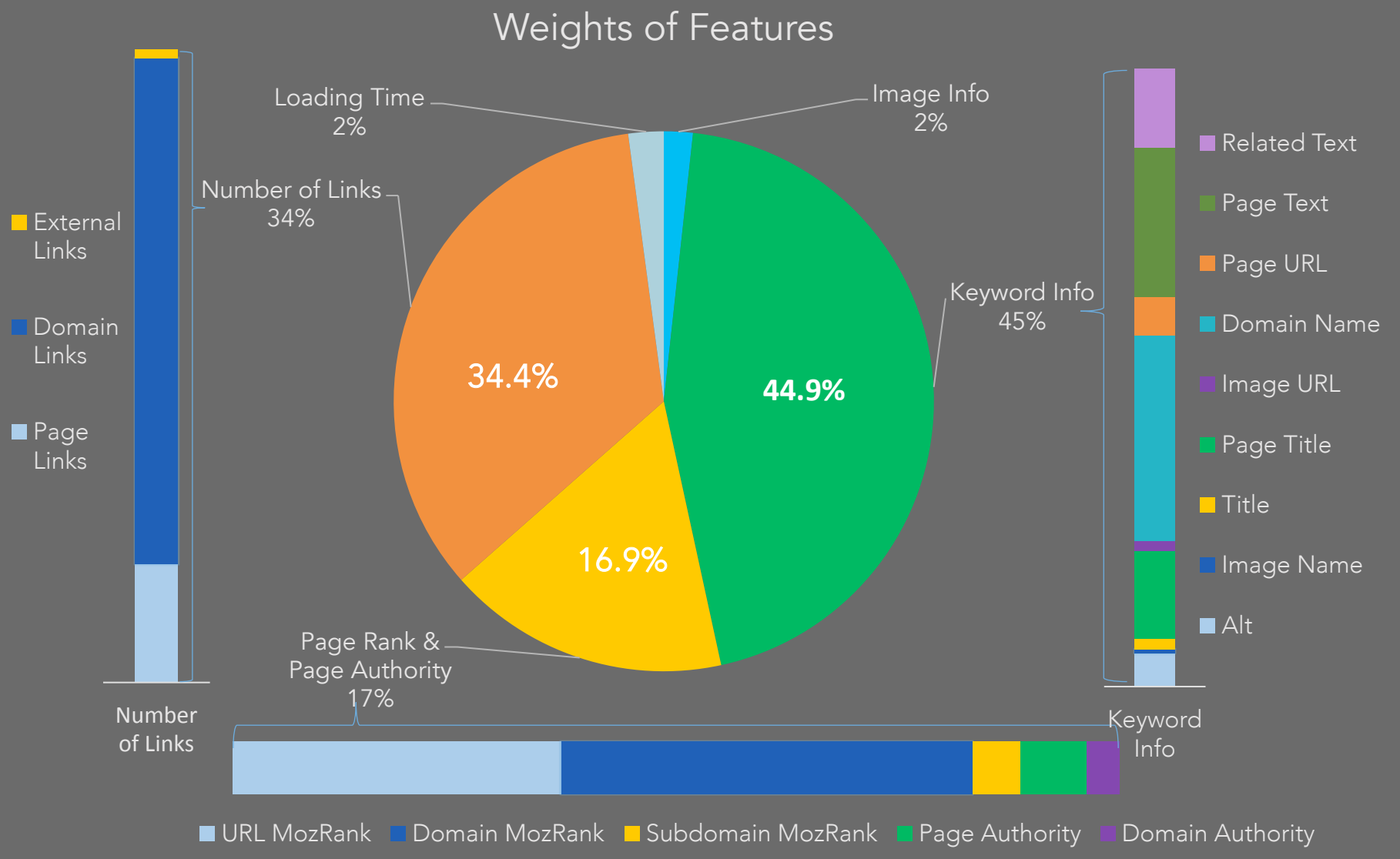
Imitating Google Image Search
We web scraped search results and used machine learning algorithms to determine the importance of each feature.

Human Input
We performed sentiment analysis to quantify public opinions from Twitter and used community-based crawling and seeding to collect information relevant to minority groups.

Better Search Engine?
We will conduct Surveys to compare Google's search result and our search engine and gather feedback.

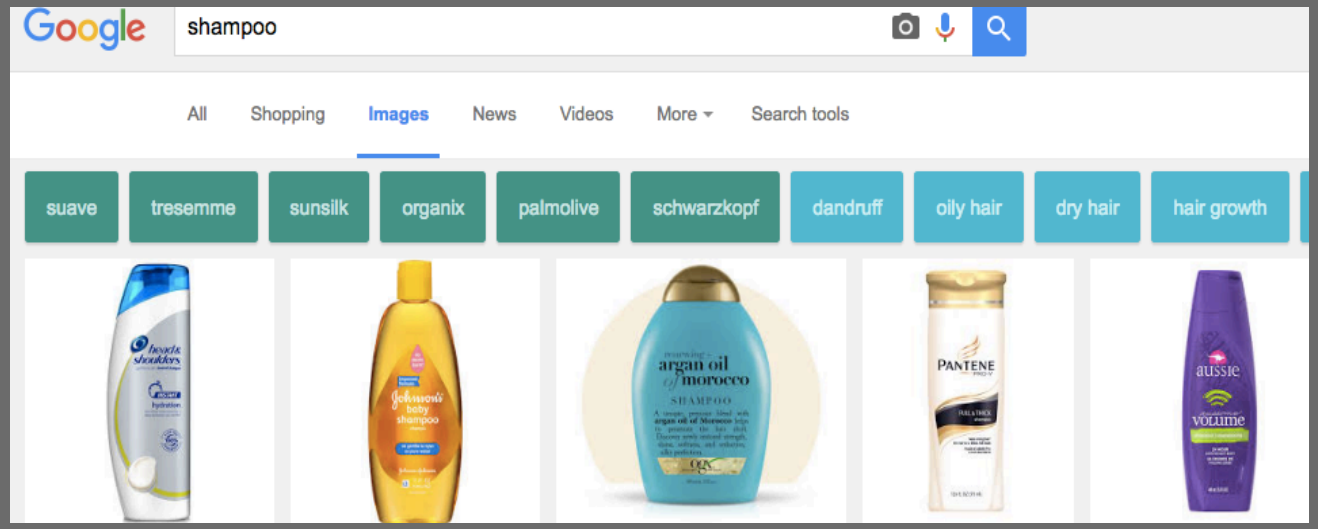
Model Output & Analysis

- **Important Features:**
  - Domain Links
  - URL MozRank
  - Domain MozRank
  - Keyword In Page Text
  - Keyword In Domain
- **Domain information** is the most important feature in Google's ranking algorithm.



Product & Future Endeavors

We transformed search into discovery by reverse engineering Google's search to provide a platform that incorporates human input from Twitter and expert opinions to construct an innovative search engine.



Shampoo Case Study:

1. Head & Shoulders
2. Johnson's
3. Argan Oil of Morocco
4. Pantene
5. Aussie

With Twitter Input

1. Herbal Essences
2. Aveeno
3. Aveda
4. Sexy Hair
5. Pantene

Future Endeavors:

- We want to incorporate more features Google uses, including image recognition
- We want to obtain the sentiment score of the domain name in combination with keywords on Twitter to obtain public opinion as a feature to provide human input into the image ranking.
- We want to create a seeded search method geared toward specific communities that combines out web scrapped data, Twitter sentiment analysis and researched minority related sites.