

read.me

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- News in a stream

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- Learn people's preferences on the fly

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Reading news has never been that easy!

Technology Stack

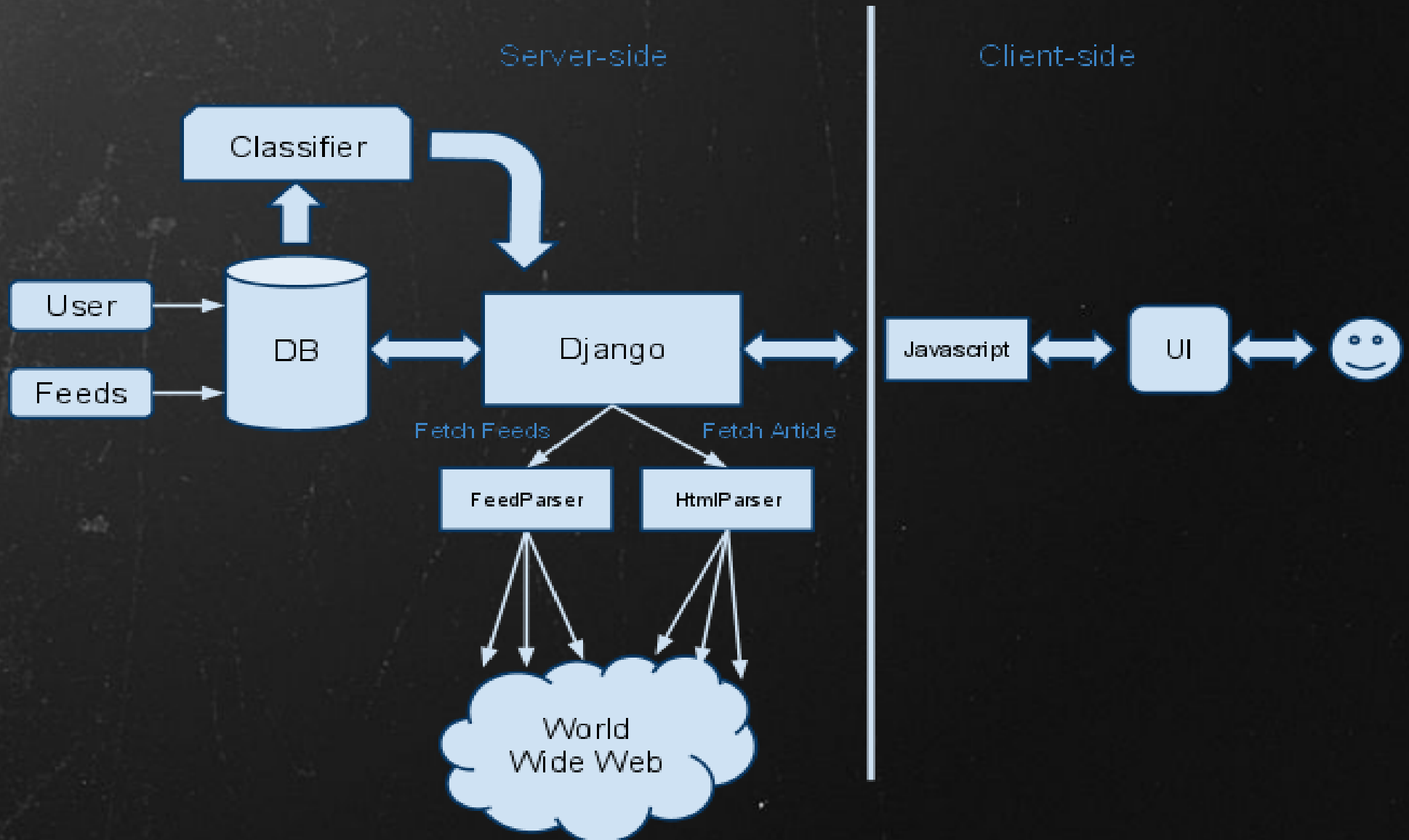
Technical

- Framework: Django
- Database: PostgreSQL, SQLite
- Server: Apache
- Front-end: HTML, CSS3, Javascript/jQuery
- 3rd Party API: FeedParser, Beautiful Soup, Readability

Conceptual

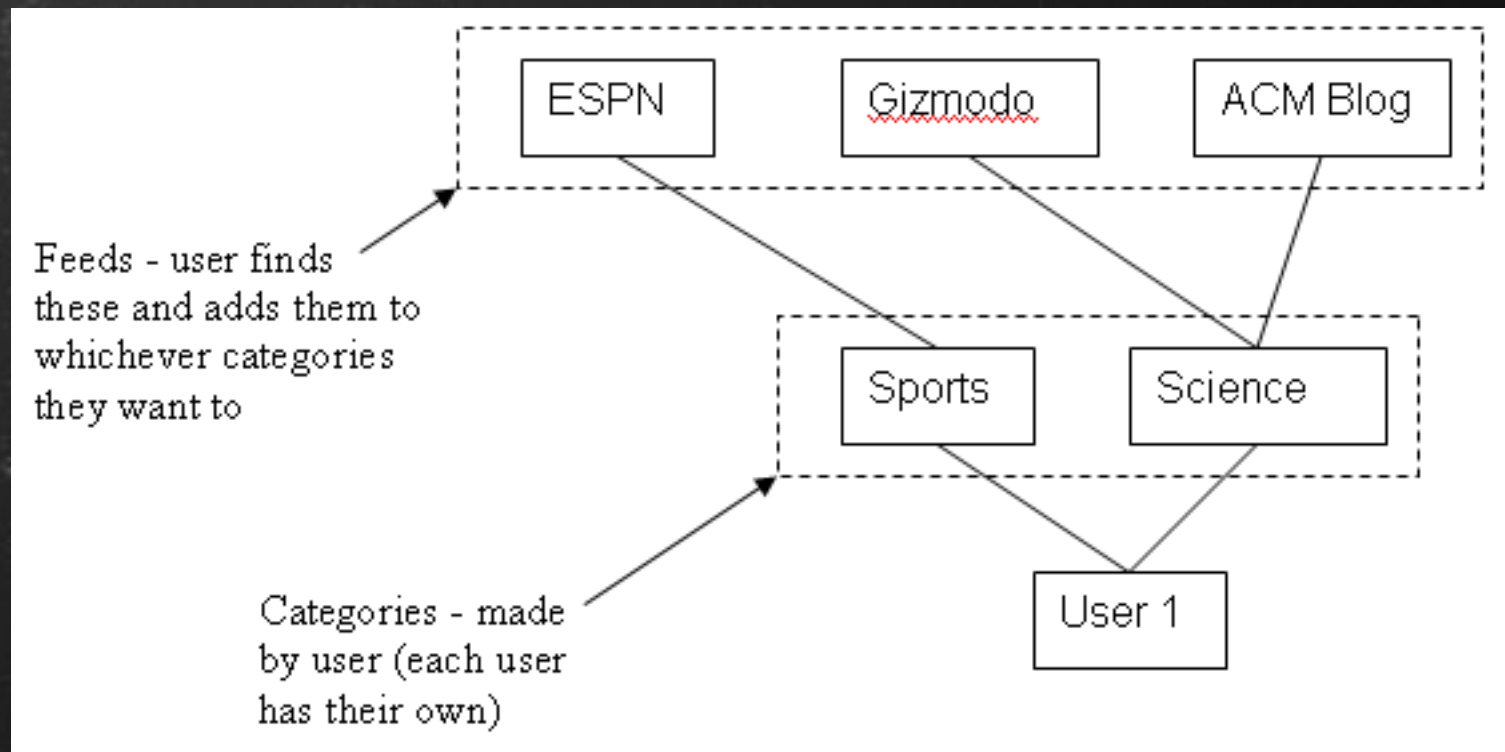
- Classification: Naive Bayes Theorem

System Architecture



How it works

- Users create categories and associate feeds with categories



How Classifier works

- Each category has an associated classifier
- Classifier is Naive Bayes with two classes (relevant vs. irrelevant)
- Classifier initially inactive (user provides training examples as they read through articles)
- Once the classifier is active, we decided we always want to return something
- How to do this if all articles are classified as irrelevant?

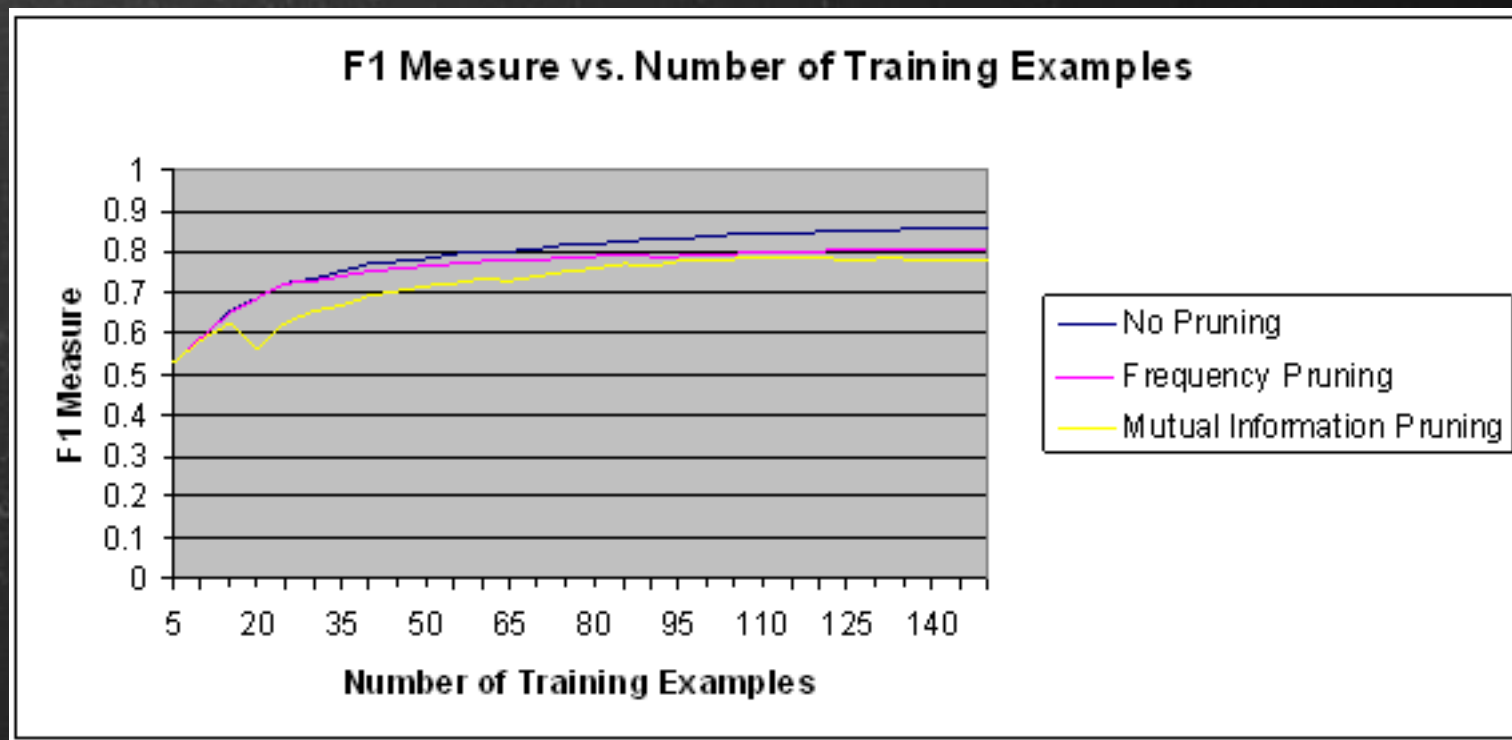
How Classifier works

- Naive Bayes assigns a score to each contending class, and assigns the classification with the highest score
- Instead of returning only documents for which $S_R > S_{\bar{R}}$
- Assign $S_R - S_{\bar{R}}$ to each document
return the documents with the most positive difference

Recomm-engine Performance

- Tried three variants of classifier
 - Frequency based feature pruning
 - Mutual information based feature pruning
 - No feature pruning
- Question to answer: can feature pruning be used to improve the precision and recall?

Recomm-engine Performance (2)



- As it turns out, using pruning does not improve precision/recall
- We didn't use pruning in the live service
- Although pruning reduces space so it may still be attractive

User Interface

- Inspired by Flipboard for iPad, New York Times Skimmer
- Mimic newspaper style
- Track user's behavior when reading articles (minimize user interactions)
- implemented with HTML, CSS3, jQuery

Demo

Read.me

Isn't that incredible?

Usability Testing

- See how people use read.me in real world scenarios
- 3 people first round
- Give them tasks, observe how they perform the tasks
- Found lots of bugs and suggestions
- 2 people second round
- Improvements!

**What we learned in the
usability tests?**


Adding feeds is a difficult task

read.me

help

RSS feeds tutorial

1. Find RSS feeds

- Look for an orange (or sometimes, red) RSS icon. 
- If a website does not show an RSS icon like this like, find a link called RSS like below.

Weather forecast

› | NewsPulse | U.S. | World | Politics
Tools & widgets | **RSS** | Podcas

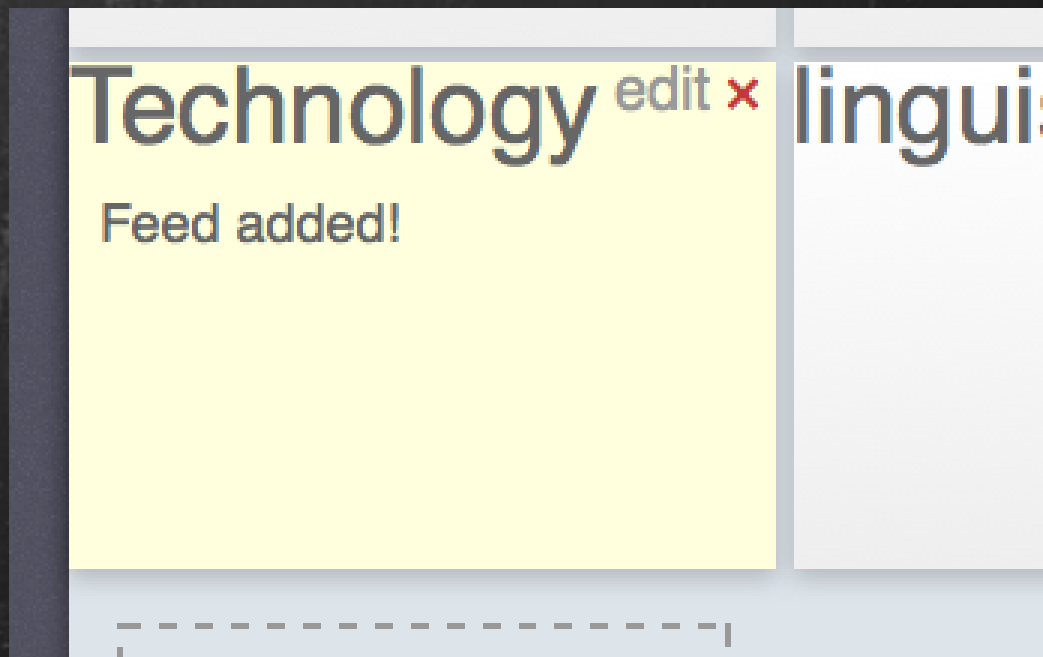
Show feed source (x2)

Dolphins send Jets to second straight loss, 10-6

The Seattle Times: Home

The Miami Dolphins turned two early turnovers into their only points, beating the flat New York Jets 10-6 Sunday at the rainy Meadowlands.

Need feedback when adding a feed to a category (x3)



Bugs found

- Error parsing some feeds
- Hard to get the right content from HTML

How to fix?

- use BeautifulSoup (Python HTML parser)

What we experienced

- Create a web app
- Deploy a Django app on Apache server
- Design an efficient database
- UI design and implementation (cool CSS3 properties)
- Avoid reimplementing code (3rd-party code)
- Classification: NB
- Usability Test



<http://readme.cs.washington.edu>