

Smart Feed

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A BAYESIAN SMART NEWS FEED READER

WHAT IS IT?

- ✘ One app, all your favorite news feeds
- ✘ Customizable
- ✘ Client-server
- ✘ Uses Bayesian algorithm to make recommendations
- ✘ Unique



Smart Feed

CUSTOMIZABLE

Smart | **Headlines** | Sports | Politics | ...

China proposes emergency talks on Korea crisis

YEONPYEONG ISLAND, South Korea — China called for emergency talks on resolving a crisis on the Korean peninsula on Sunday, and Seoul and Tokyo said they would study the proposal.

★★★★★ (Our best guess for you)

Cables shine light into secret diplomatic channels

WASHINGTON — A cache of a quarter-million confidential American diplomatic cables, most of them from the past three years, provides an unprecedented look at backroom bargaining by embassies around the world, brutally candid views of foreign leaders and frank assessments of nuclear and terrorist threats.

★★★★★

Euro zone awaits market verdict on debt rescue plans

BRUSSELS — EU finance ministers awaited the verdict of financial markets on Monday after unveiling a rescue package for Ireland and a long-term mechanism intended to prevent the debt crisis tearing the euro zone apart.

★★★☆☆ (Our best guess for you)

Deal lets media exec lead NYC schools

NEW YORK — An official with knowledge of the decision says New York's education commissioner will grant media executive Cathleen Black a waiver to serve as chancellor of the nation's largest school system.

★★★☆☆

Iraq arrests 12 over deadly Baghdad church siege

BAGHDAD — Iraq's interior minister says a group of 12 insurgents suspected to be behind the deadly church siege a month ago has been arrested.

★★★☆☆

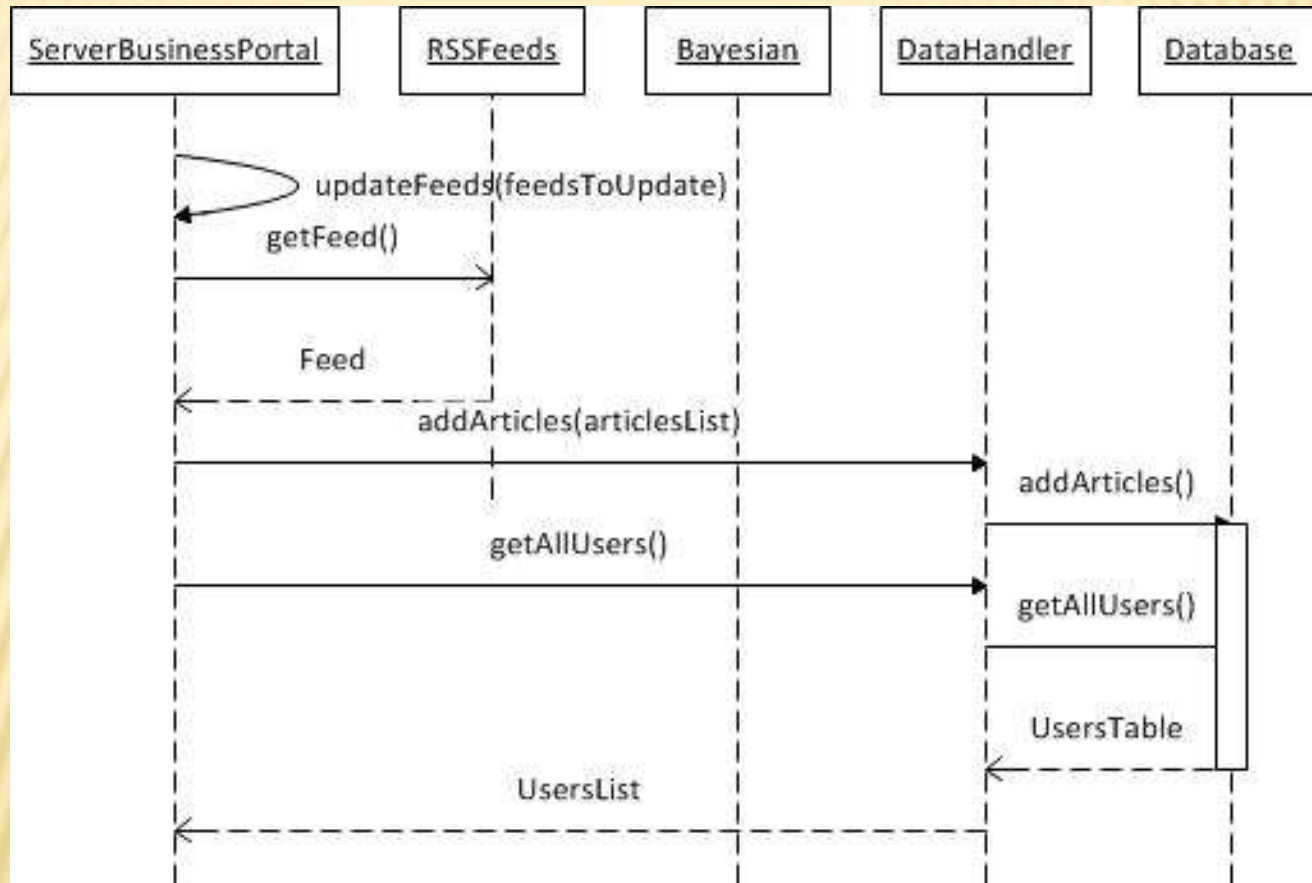
- ✘ Choose any RSS feeds
- ✘ Custom categories
- ✘ User specific recommendations

Smart Feed

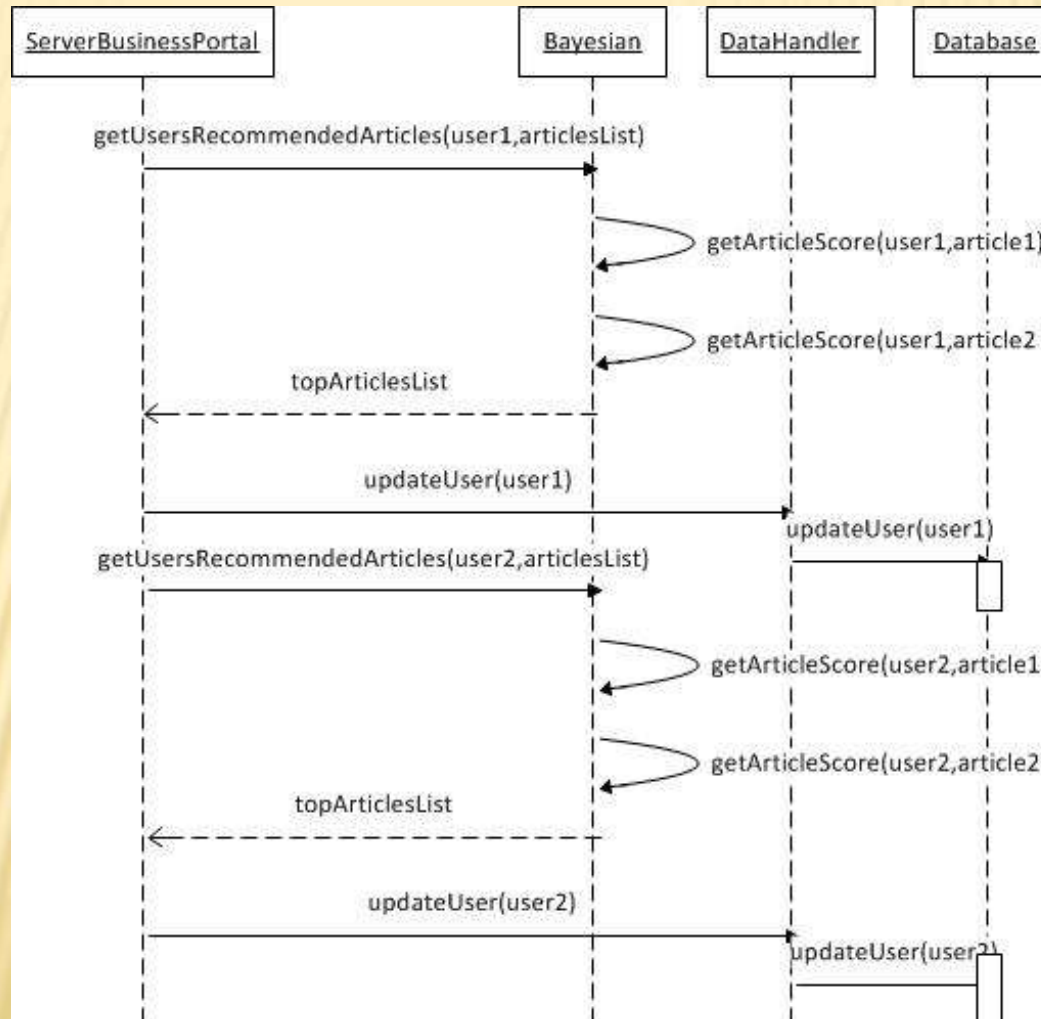
BENEFITS OF CLIENT-SERVER

- ✘ Same customizations on all devices
- ✘ Easy to develop a client for different platforms
- ✘ Users don't need to download and install patches for most updates

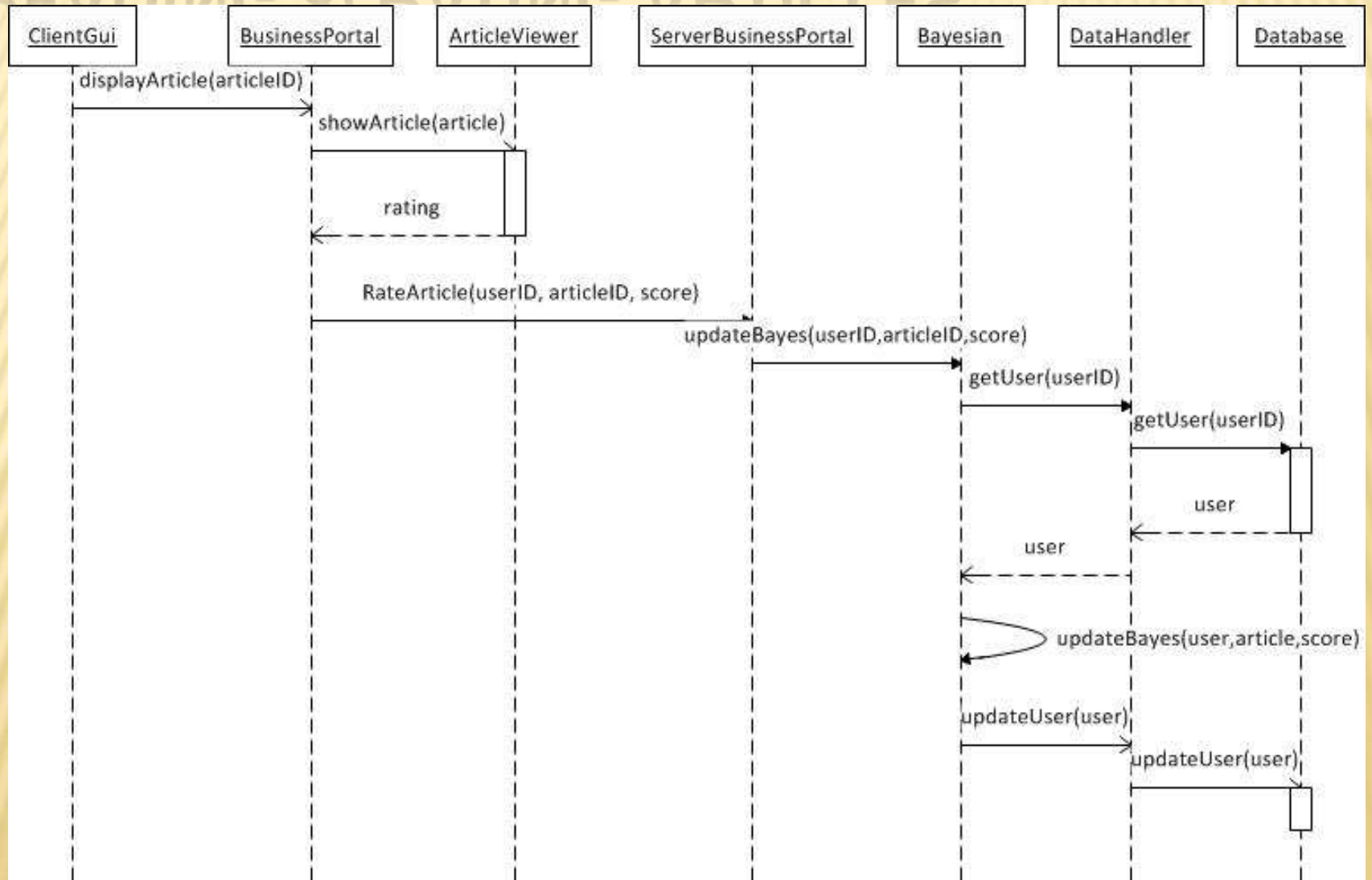
GETTING ARTICLES



SCORING ARTICLES



READING & RATING ARTICLES



HOW DO WE MAKE IT SMART?

- ✘ Naïve Bayesian Algorithm
 - + Classification Mechanism
 - + Conditional Probability
 - ✘ Requires base dataset
 - ✘ More data yields better classification (it gets smarter)
 - + Used in a variety of Applications
 - ✘ Spam filtering is just one very popular application
 - ✘ Smart feed is like a spam filter in reverse

Smart Feed

INITIAL HYPOTHESIS

- ✘ The Smart feed needs to be trained
 - + We initially estimated the following results
 - ✘ 60% accuracy level after 100 rankings
 - ✘ 80% accuracy level after 1000 rankings
 - + What does that mean?
 - ✘ If the user can rate the articles Smart Feed rated a 5 at
 - ★ 3 out of 5 or higher after 100 reviews
 - ★ 4 out of 5 or higher after 1000 reviews

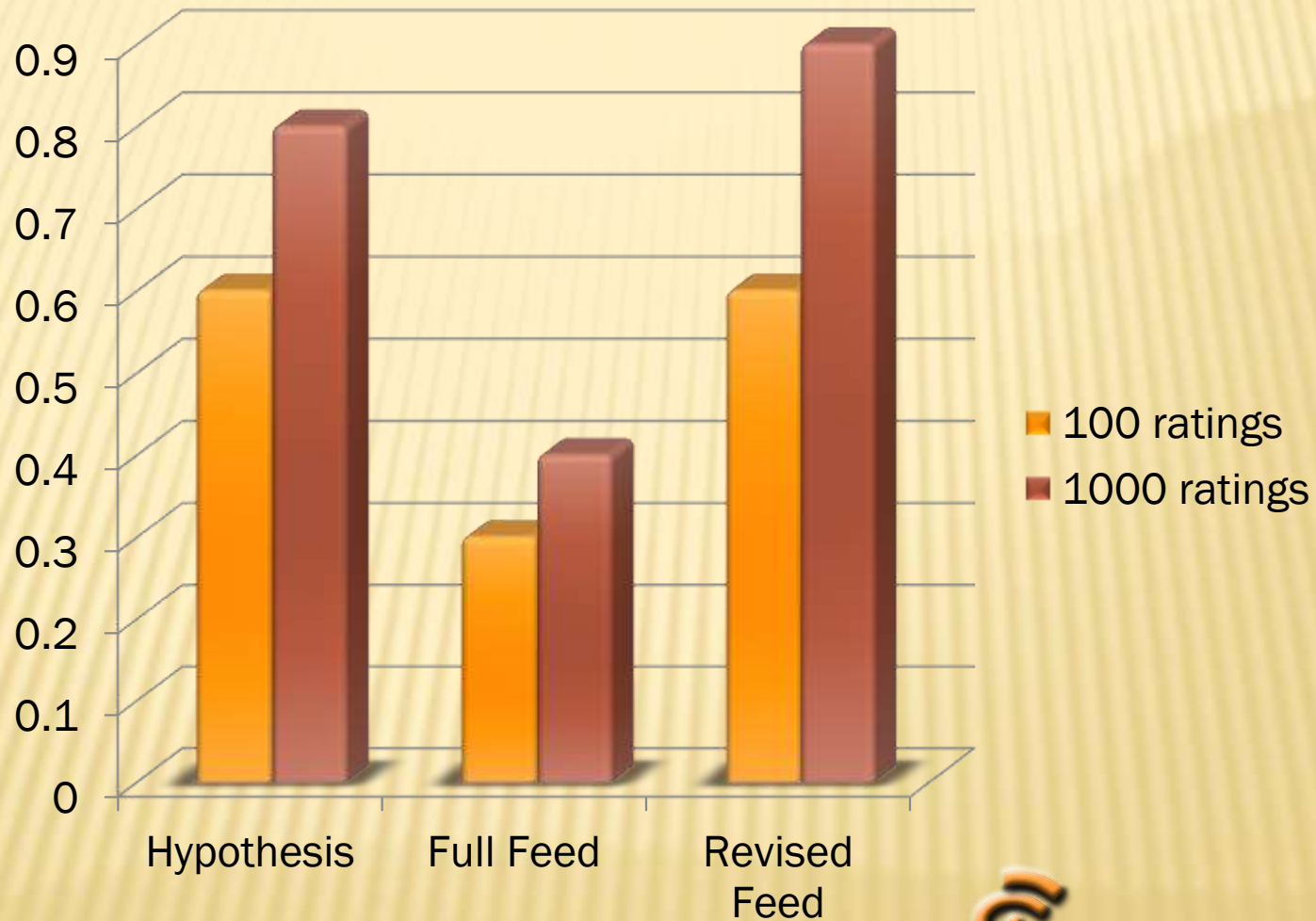
Smart Feed

METHODS AND RESULTS

- ✘ Initially used entire feed
 - + Rated common words (and, the, of, etc.)
 - + Gave artificially high results
 - + Did not meet success criteria

- ✘ Revised feed
 - + Removed common words from analysis
 - + Gave more accurate results
 - + Met or exceeded expected results

METHODS AND RESULTS



Smart Feed

*Results are subjective, based on human preferences

WHAT'S NEXT?

- × Improvements

- + Compare users data with others

- + Cross platform support

- + Add additional machine learning systems

- × Bayesian networks

- × Neural networks

- × Genetic algorithms

- × Commercialization?