

Professor Compatibility

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A decorative graphic on the left side of the slide, consisting of overlapping green and teal geometric shapes that form a stylized arrow pointing to the right.

Recording of Presentation

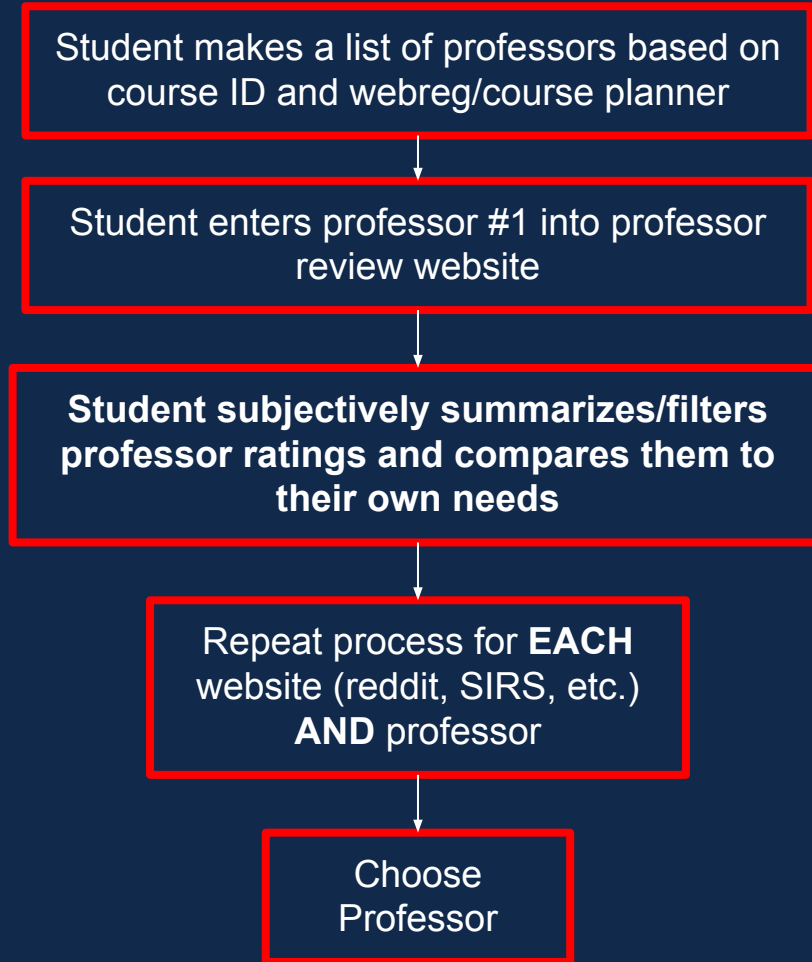
<https://youtu.be/5xL2uqp2ZB0>



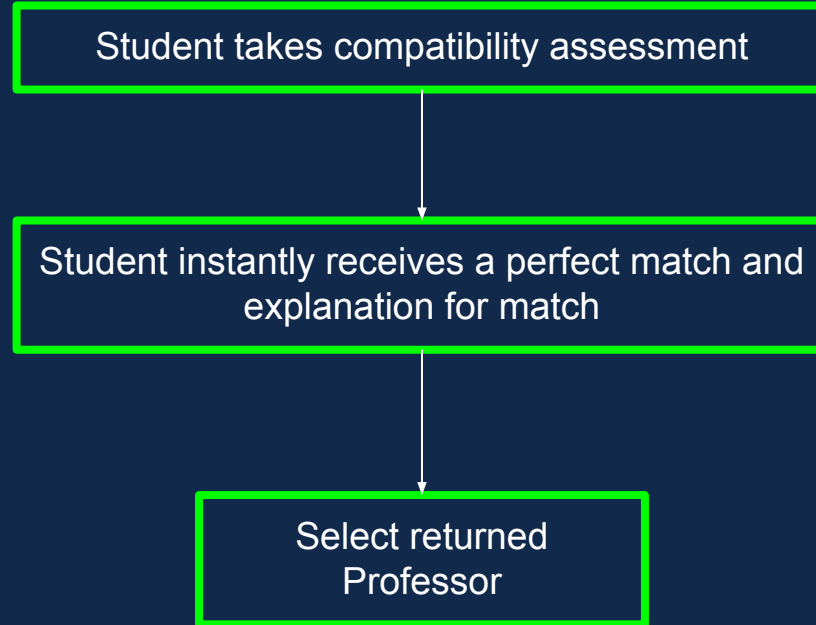
Abstract

There are many websites available for students to assess potential professors traits, reviews, and ratings prior to course registration. However, these platforms don't provide a methodology for students to assess their compatibility with a given professor. Our Professor Compatibility Assessment allows students to get matched with a professor based on data from professor rating sites and user preferences. In this presentation, we share a methodology that is user tested and statistically validated, and is created with the intent of improving long term academic success among students.

Problem Statement



Problem Statement



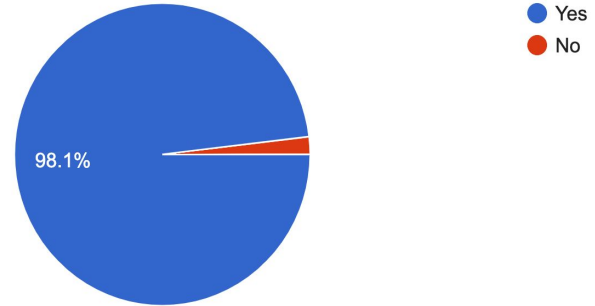
Motivation

Positive Academic Impact:

Over 98% of students believe that a compatible professor is important for student satisfaction, grades, and engagement

Is picking the right professor important for your academic success?

53 responses



Market Literature Review

- Ratemyprofessor, reddit, SIRS, Five Point Oh (WebReg extension)
- No platform that offers a personalized recommendation for professors that will work for you
- We differentiate ourselves by analyzing reviews and assessment data



Scientific Component: Keywords versus Text

RMP terms

QUALITY

1.0

CHEM159160

AWFUL

For Credit: **Yes** Would Take Again: **No** Grade: **Incomplete** Textbook: **Yes**

DIFFICULTY

5.0

don't listen to what student ask or say

GET READY TO READ LECTURE HEAVY TOUGH GRADER

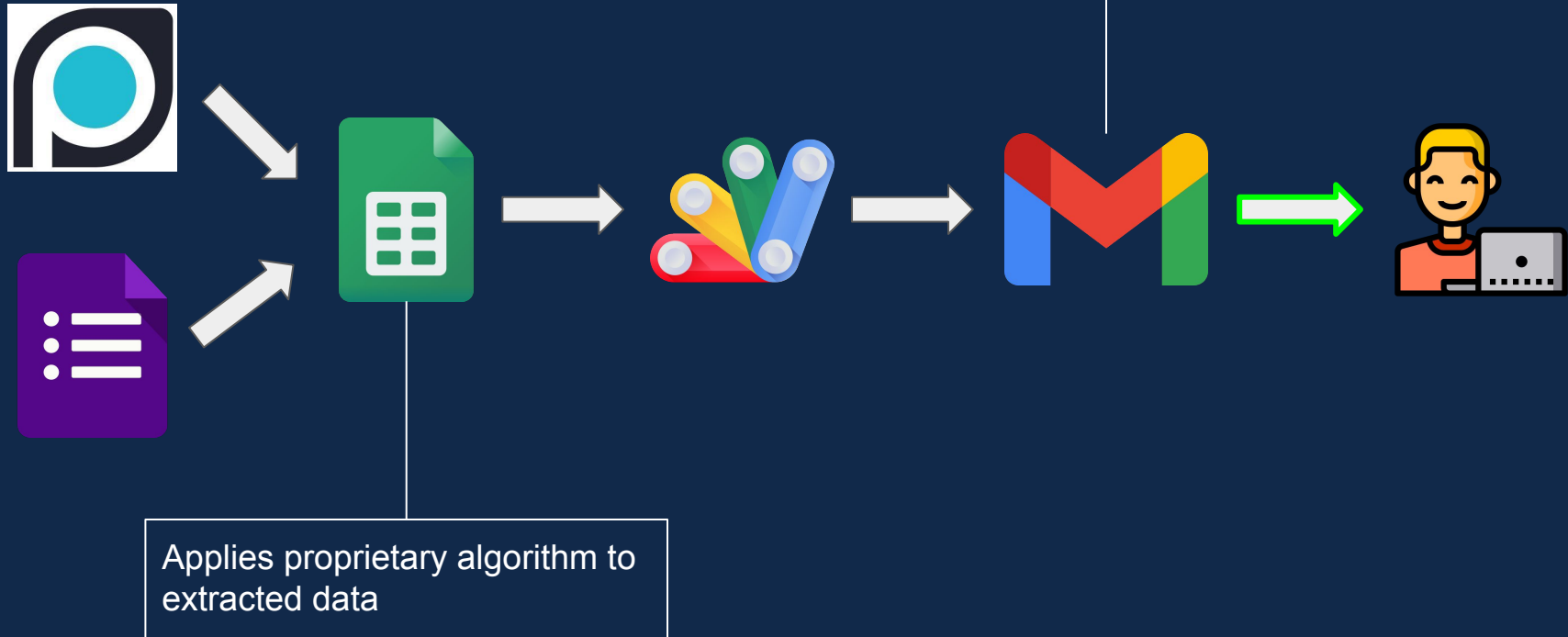
Review

Significant keywords: syllabus related non-bias descriptive terms (textbook, assignments, grades, attendance, etc.)

STEPS:

1. Performed hypothesis test of 30+ trials
2. Test if reviews have more significant keywords than ratemyprofessor terms
3. Concluded with 95% confidence that the ratemyprofessor terms have more significant keywords than the review texts

Technological Components



Validation Testing with Beta Compatibility Assessment

- Validation success: Algorithm matches user preference
 - Was within the calculated variance of the professor the student previously took and enjoyed
- Validation success rate of 71%
 - Small sample size
- Large scale adoption would require 100+ responses and validation at the end of the semester



Demo: Take Compatibility Assessment

Professor Compatibility Assessment

abj37@scarletmail.rutgers.edu [Switch account](#)

 Draft restored

Your email will be recorded when you submit this form

Choose

Calc 1 Math/Phys

Calc 2 Math/Phys

General Chemistry

Page 1 of 4

[Clear form](#)

Professor Compatibility Assessment

abj37@scarletmail.rutgers.edu [Switch account](#)



Your email will be recorded when you submit this form

Classwork

On a scale from Extremely dislike to Extremely Enjoy, How much do you care about receiving the following in class

So many papers

1

2

3

4

5

Extremely dislike

☐☐☐☐☐

Extremely enjoy

Compatibility Assessment Results



professorcompatibility@gmail.com

to abj37 ▾



Good news abj37@rutgers.edu

Your most compatible professor is Mathew Sequin! You are 88% compatible with this professor.

Want to learn more about your perfect match? Check out some of these links!

- [Ratemyprofessor](#)
- [Bio](#)

Curious about how we found your perfect match?

Based on your unique compatibility assessment results and data for several professors from Ratemyprofessor, we matched you with the best professor for you! Our algorithm utilizes web scraping, linear algebra, and statistics ---> so you know it's legit.

Made with  by Professor Compatibility

Project Management

Team Member	Responsibilities
Jonathan and Jake	Web scraping and review analysis
Albert and Marc	Assessment analysis and technical applications

Limitations and lessons learned

- Time for validation testing → Created Beta Survey that captures previous data
- Bias in reviews → Conducted statistical test to understand text vs terms
- Sample size for validation testing

Conclusion

Our program offers a much more personalized, accurate, and efficient method of professor recommendations for Rutgers University unlike any program has done in the past.



Thank you!

Big thanks to Professor Jafari and Yi for their consistent constructive feedback throughout this project.

Thank you to the class for taking our assessments and providing feedback.

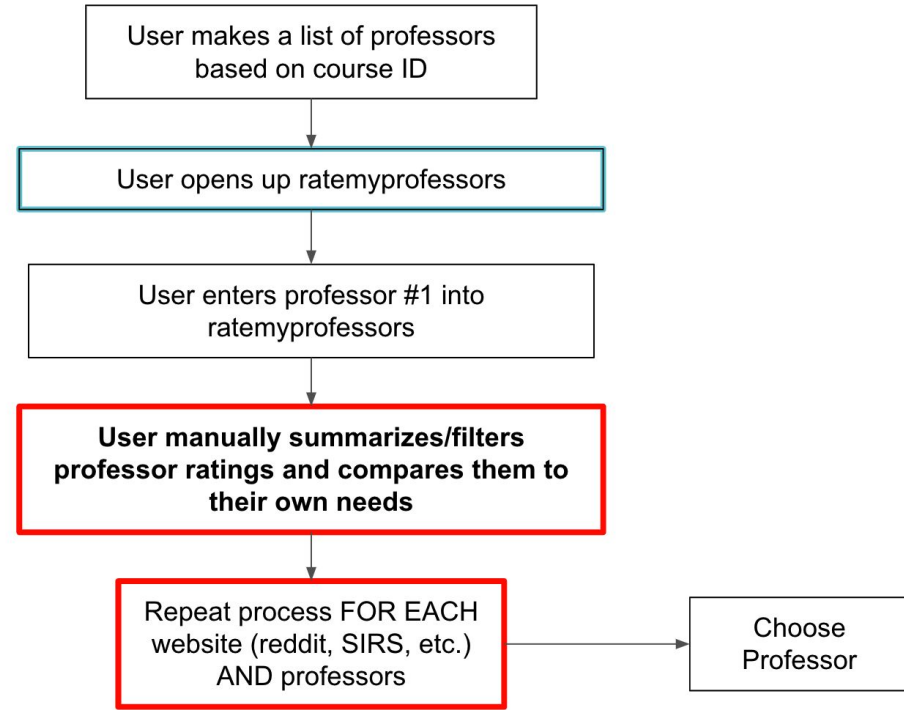
Thank you to the judges for their time listening to our presentation.

Appendix

Problem Statement

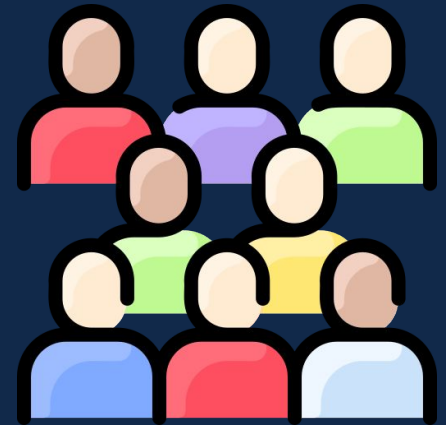
- 90.6% of students use/value professor ratings when selecting future classes
- No professor rating website that match the right professor to each individual student. Difficult to select the professor that best meets students goals and passions

Status Quo Diagram



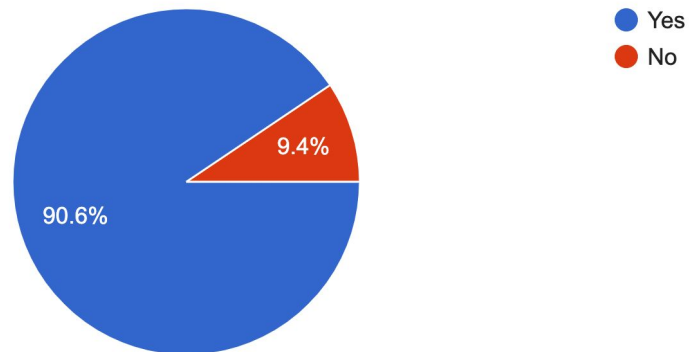
Validation Testing for Large Scale Adoption

- Record 100 responses and ensure that they register for their most compatible professor
- Validation success: Algorithm matches user preference at end of the semester



Do you use professor rating websites prior to course registration?

53 responses



Scientific Components

[illegible]

Scientific Components

- Coding for Compatibility Matching (Left)
- Parsehub Module Setup (Right)

```
1  /**
2   * Sends emails with data from the current spreadsheet.
3   */
4  function sendEmails() {
5      var sheet = SpreadsheetApp.getActiveSheet();
6      var startRow = 4; // First row of data to process
7      var numRows = 5; // Number of rows to process
8      // Fetch the range of cells A4:L8
9      var dataRange = sheet.getRange(startRow, 1, numRows, 12);
10     // Fetch values for each row in the Range.
11     var data = dataRange.getValues();
12     for (var i in data) {
13         var row = data[i];
14         var emailAddress = row[0]; // First column
15         var message = "Hey, it's a match! Your most compatible proffesor is..." + " " + row[11]; // Second column
16         var subject = 'Compatibility Assessment Results';
17         MailApp.sendEmail(emailAddress, subject, message);
18     }
19 }
```

← 🏠 ratemyp... 📄 ⚙️ 🔍 BROWSE

main_template

- Select page (1) +
- Select XButton
- Click each XButton item
- and go to main_template
- Select Load_More_Ratings
- Click each Load_More_Ratings item
- and go to main_template
- Select Professor
- Extract Professor
- Select Keywords ⋮ +
- Extract Keywords

Get Data

Current Accomplishments

	A	H	I	J	K
1		General Chemistry			
2	Email	Francesca Guerra	Ana Kornienko	Paul Kimmel	Brian Langowski
4		3.26	2.98	3.31	2.82

Result	emailSent
Paul Kimmel	EMAIL_SENT

Compatibility Assessment Results Inbox x



abj37@scarletmail.rutgers.edu

to me ▼

2:28 PM (49 minutes ago)



Hey, it's a match! Your most compatible proffesor is... Kimmel