

# CORSICA

CS Waitlist Management & Enrollment System  
CS410 Red Team

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# PROBLEM & HISTORICAL DATA

Patrick DeBerry

# History

- Old Dominion University
  - Founded in 1930
  - Undergraduate enrolled:  
**19,612**
  - $19,612 * 4 = 78,448$  course enrollments
- Computer Science students enrolled:
  - Undergrad: 456
  - Master: 80
  - Doctorate: 42
- Record Systems:
  - Banner
  - LeoOnline

# Banner



- Limited GUI
- ODU's centralized academic and administrative records system
- Allows overrides to be made by upper administration

*Source: Old Dominion University Website*

# LeoOnline

- Web-based graphical user interface
- Maintains all the academic and financial data for students
- Allows Degree Works
- Different portals based on user
  - Student
  - Administrator
  - Advisor
  - Faculty / Staff

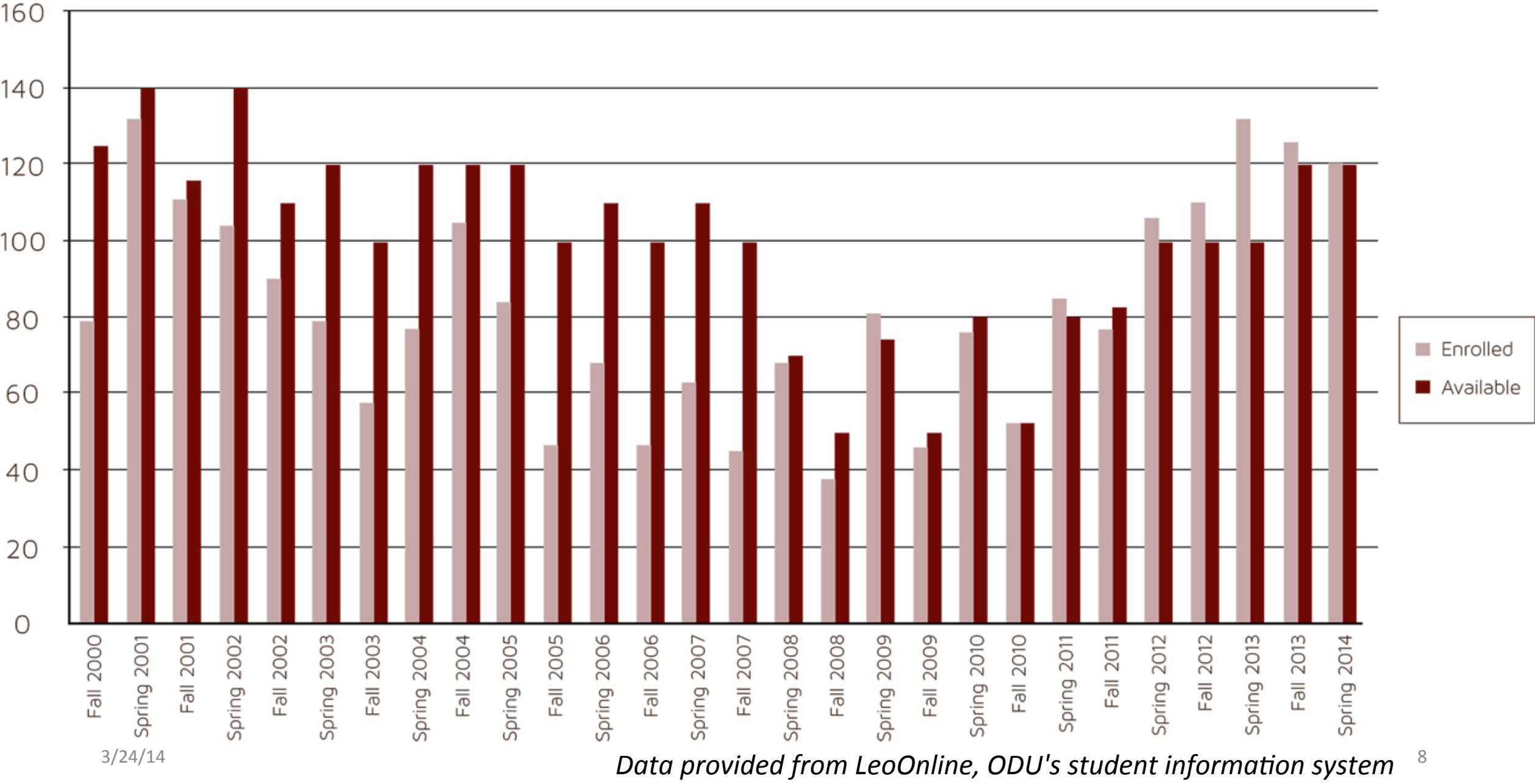


# Bob and Latimer

- A scenario:
  - Latimer, a CS senior needs 8 courses to graduate
    - Included: CS 410, CS 330, etc.
    - She met all prerequisite so there was no problem
  - Bob, a CS Freshman needs to sign up but must wait until Friday
    - Works, commutes... no time to sign up!!!
    - All courses fill up due to time issues

This is an example of complications that could arise during student enrollment

# CS250





Limited course availability  
during enrollment

# CASE STUDY

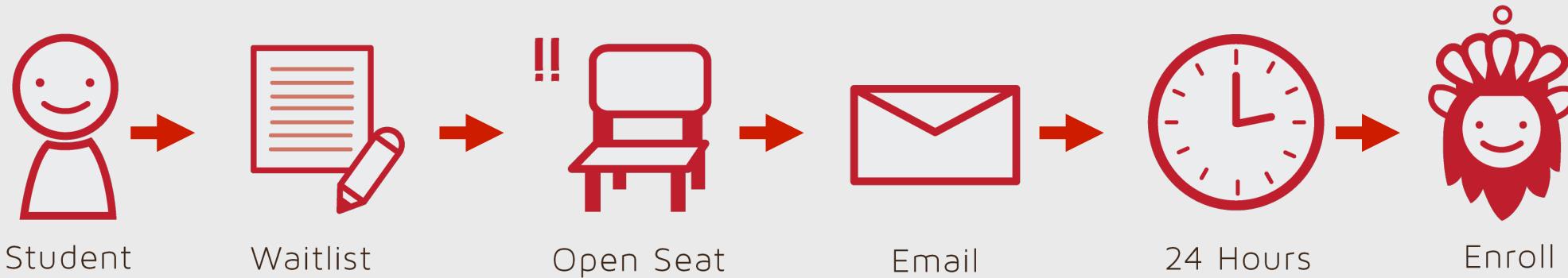
Lookmai Rattana

# Current Waitlist

- Available to the entire university
- The waitlist starts when a class is filled up
- A vacancy appears but the list does not automatically enroll the student on the list

*Scenarios provided from Waitlist History Log by Dr. Levinstein*

# Process



- Student joins a waitlist for a filled class
- System checks for available enrollment
- Student is given 24 hours to response via email
- The student enrolls his or herself into the class on LeoOnline

# PROBLEMS

- A student not on the list can enroll before the student can respond
- Lack of response from the first student causes the waitlist to clogged up
- Rooms for miscommunication
- Waitlist's Visibility

# PROBLEM CHARACTERISTICS

Bitaseme Mboe

# Problem Characteristics



Confusing

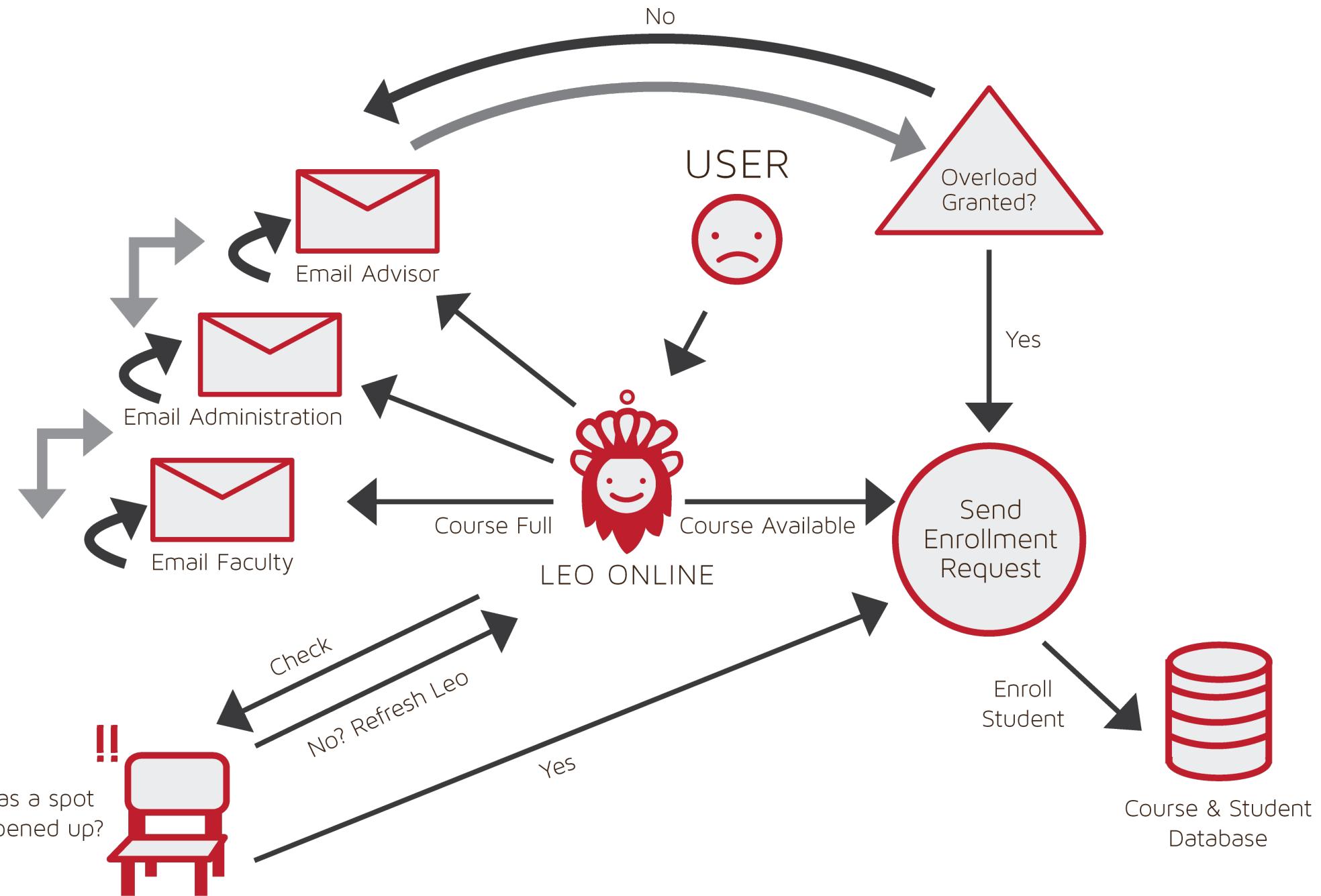


Time  
Consuming



Inefficient

# Current Process Flow



# Waitlist History Log

- No one ever goes from the waitlist to the course. They just drop off the head of the waitlist, leaving vacancies in the course. In what follows, entries like this

**12/02: #23441 70/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

- show enrollment/cap (here **70/70**) on the given date. Entries like this

**Dec 5 10:30 3/10 ( 7)**

- show waiting list length/cap (available), here **3/10 ( 7)** at the given date and **24** hour time. entries beginning with -- are comments.

# Waitlist History Log

-- we start with a full class and **2** on the WL.

Nov **24** **16:30** **2/10** ( **8** )

**12/02:** #23441 **70/ 70** cr:3 <OCNPS> **0930 TR STAFF,**

-- an opening appears by **12/04** ...

**12/04:** #23441 **69/ 70** cr:3 <OCNPS> **0930 TR STAFF,**

-- ... and the WL grows ...

Dec **5** **10:30** **3/10** ( **7** )

Dec **5** **13:30** **5/10** ( **5** )

# Waitlist History Log

-- ... but the vacancy does not fill.

**12/06: #23441 69/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

Dec **7 08:30 7/10 ( 3)**

Dec **7 11:30 8/10 ( 2)**

**12/08: #23441 69/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

Dec **9 08:30 9/10 ( 1)**

Dec **10 18:30 10/10 ( 0)**

-- Meanwhile the WL grows and fills up.

**12/10: #23441 69/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

# Waitlist History Log

-- Another vacancy appears ...

**12/12: #23441 68/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

Dec **13 17:30 9/10 ( 1)**

Dec **13 18:30 10/10 ( 0)**

-- ... and it appears that someone makes use of it, but actually

-- the person at the head of the list does not respond to email

-- (my theory) and another person jumps on the WL.

# Waitlist History Log

-- Meanwhile, a third vacancy appears.

-- From other sources: no one new registered from **23441** between **12/07** and **12/14**

**12/14:** #**23441 67/ 70** cr:3 <OCNPS> **0930 TR STAFF,**

**12/16:** #**23441 67/ 70** cr:3 <OCNPS> **0930 TR STAFF,**

-- another person who was notified did not respond and was dropped from WL

Dec **18 16:30 9/10 ( 1 )**

**12/18:** #**23441 67/ 70** cr:3 <OCNPS> **0930 TR STAFF,**

Dec **19 08:30 10/10 ( 0 )**

# Waitlist History Log

-- the WL fills again, but no new registrations

**12/20: #23441 67/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

-- From other sources: no one new registered from **23441** between  
**12/14** and **12/21**

**12/22: #23441 67/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

**12/24: #23441 67/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

**12/26: #23441 67/ 70 cr:3 <OCNPS> 0930 TR STAFF,**

Dec **27 11:30 9/10 ( 1)**

# SOLUTION

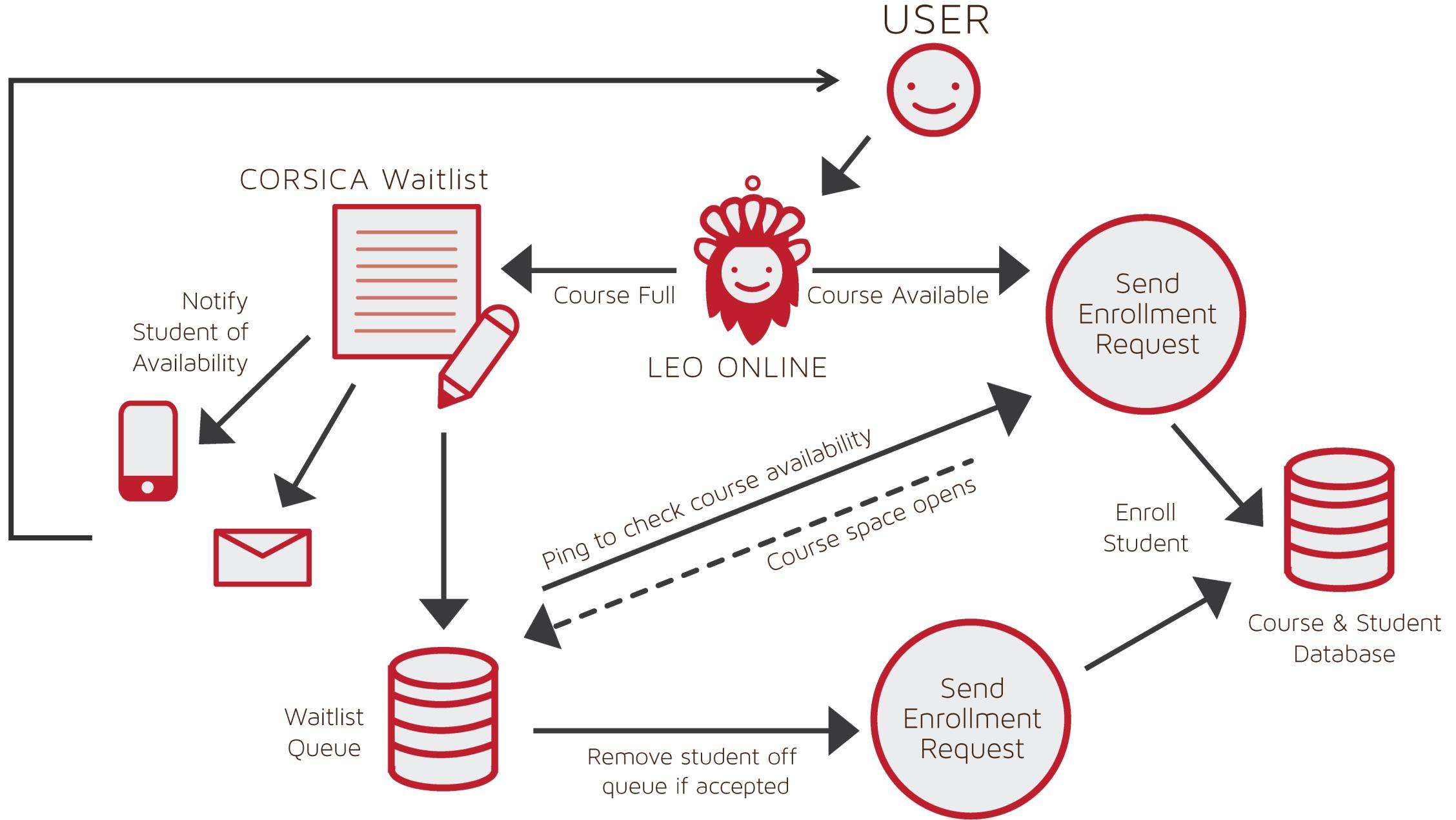
Anthony Baron

# Solution Statement

- CORSICA will cause the enrollment process to become more efficient and streamline by
  - Emplacing course waitlist
    - To handle course fill ups during enrollment process
  - Having a waitlist communication system
    - Let students know a course has open by email, call, or text

# Solution Goals and Objectives

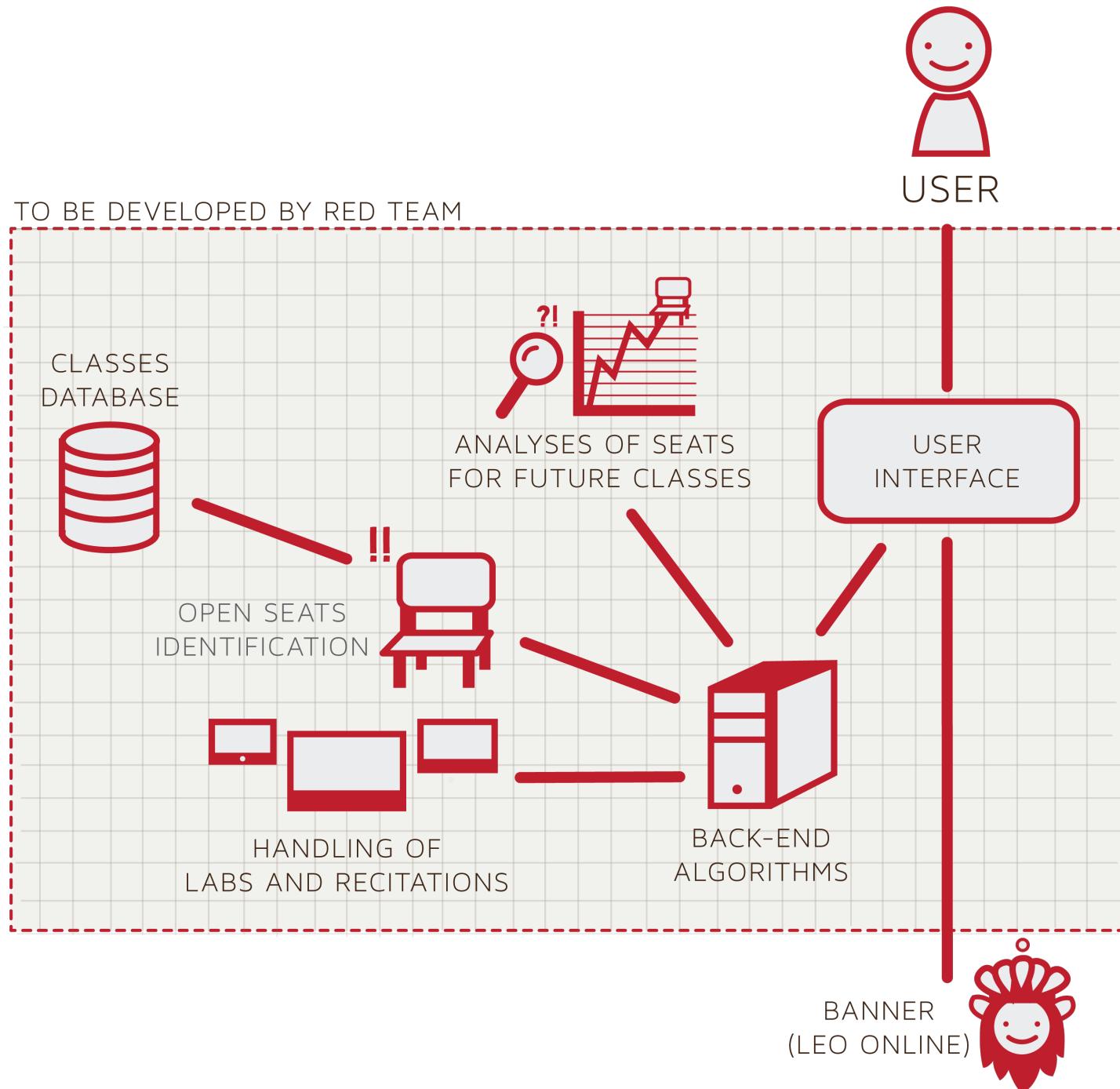
- Provide automated system through which:
  - Faculty and students can be notified of available seats
  - Reserves the available seats for student on waitlist
  - Ensures fair process
  - Triggers alerts for enrollment aspects



# COMPETITION & MAJOR FUNCTIONAL COMPONENTS

Latimer Gerle

	Temple University	Diablo Valley College	Brigham Young University	University of Pittsburgh	Ohio University	University of Hawaii
How do I join the waitlist?	SSB	WebAdvisor	MyMAP	PeopleSoft	myOhio	myUH
Do all classes offer a waitlist?	✗	✗	✗	✗	✗	✗
How many credits can I waitlist?	Unlimited	Unlimited	—	8 credits	8 credits	Unlimited
Can I waitlist more than one section?	✗	✗	✗	✓	—	✓
Can I see what my current position is?	✓	✓	✓	✓	✓	✓
Can I take myself off the waitlist?	✓	✓	✓	✓	✓	✓
How am I notified of a spot opening?	Email	Email	—	—	—	Email or email and text
Will I be registered automatically?	✗	✗	✓	✓	✓	✗
How long do I have to register?	72 hours	72 hours	—	—	—	24 - 48 hours
What happens if I don't register in time?	Dropped from waitlist	Dropped from waitlist	—	—	—	Dropped from waitlist
Will more than one student be offered a spot at one time?	✗	✗	—	—	—	✗
Can I be prevented from joining a	✓	✓	✓	✓	✓	✓



# Required Components

- Back-end algorithms
- Open seat identification
- Class database
- Lab/recitation handling
- Future class analyses
- User interface
- Notification system
  - Email
  - Text

# BENEFITS OF CORSICA

Nicholas LoGioco

# Benefits of CORSICA

- Track the demand for certain courses which will help better manage curriculum offerings
- One location for students to sign up for every course
- Decrease stress on faculty and students
- Increase the amount of students enrolling into courses

# Problems with Solution



- Time issues with courses
- Does a course require a lab / recitation?
- Do we have a max waitlist cap?
- Allow overriding of the waitlist for advisors

# References

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# Team CORSICA



Anthony Baron  
Web Master



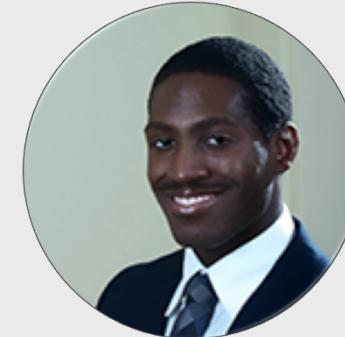
Patrick DeBerry  
Reporting &  
Analyses



Latimer Gerle  
Database &  
Project Manager



Nicholas LoGioco  
Algorithms



Bitaseme Mboe  
Interface



Lookmai Rattana  
Front End Developer  
& User Interface

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