# Case Study on UWaterloo's Quest

7/17/2019

CS 846

Presented by: Yilun Bai

Master's student in Computer Science





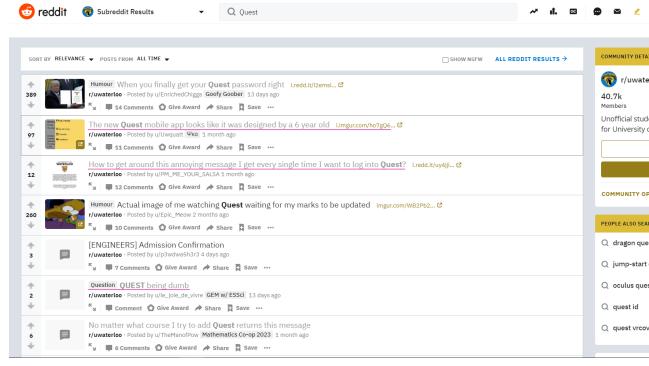
## **Outline**

- Motivation
- Goal
- About Quest
  - Features
  - "New" look
- Case study on Quest
  - Email conversation with Quest people
  - Navigation Click testing (sort of)
  - UI design vision, free spacing
- Problems with Quest
- Suggestions & Solutions
- Conclusion



## **Motivation**

- We're all students at UWaterloo and we all have struggled with Quest more or less
- Undergrad -> Grad MyUW -> Quest Feels outdated
- Search "Quest" on Reddit r/uwaterloo
  - "... designed by a 6 year old..."
  - "... annoying message upon log in..."
  - "... being dumb..."
  - ..... more
- Let's make Quest better, shall we?



## Goal of the case study

- Talk with the Quest people to see why things are they way they are
- Identifying the problems with Quest
- Suggest some solutions to address the problems
- Send feedback to the Quest people to help improve the system

## About Quest – from official Quest page at https://uwaterloo.ca/quest/

- Quest is the University of Waterloo's student information system.
- User Groups:
  - Undergrad/Grad Applicants; (Future Students) I wonder how many applicants turned down the offer just because of the poor application experience on Quest.
  - Undergrad/Grad students; (Current Students)
  - Faculty and Staff;
- Access: Mobile devices/Desktop computer

## About Quest – from official Quest page at https://uwaterloo.ca/quest/

#### • Features:

#### What can you do with Quest on a mobile device?

**Future students** can view personal contact information, application status, transcripts, and undergraduate test scores.

**Current students** can enrol in courses, change personal contact information, and view your class schedule, tuition fees, tuition account summaries, tuition tax receipts, financial aid, and student record information.

#### What can you do with Quest on a desktop computer?

**Future students** can view personal contact information, application status, transcripts, and undergraduate test scores.

**Current students** can enrol in courses, change personal contact information, and view your class schedule, tuition fees, financial aid, and student record information.



Registrar's Office » News » 2019 » January »

#### Quest navigation to get a new look

TUESDAY, JANUARY 22, 2019

During the February 2019 Reading Week, Quest will be updated to provide clients with a new navigation experience.

The tile-based navigation structure (like the mobile view now) offers students, faculty, and staff a modernized, user-friendly experience. And while the initial style of the page and how you navigate the tiles will be different, the actual site content and how you use those pages will remain the same.

These usability improvements are the result of a user engagement survey that was conducted in fall 2018 and offer clients:

- · An improved work flow
- Enhanced navigation options
- Reduced clicking
- · A modern look and feel
- Easier access to help resources
- An experience that aligns with that of Quest Mobile

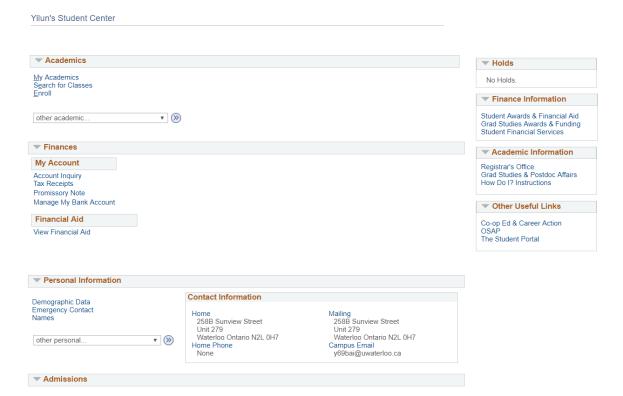
This update also brings new background technology that will allow for greater adaptability and support during future deployments.

Be sure check back for updates on this work.

- From now on,
  - Old Quest Quest before the update in Feb. 2019
  - New Quest –
     Quest after
     the update in
     Feb. 2019



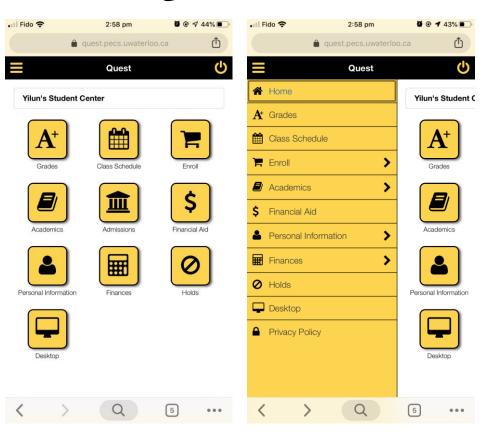
## Old – Student center page



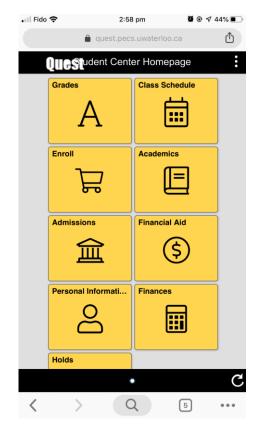
## New – Student center page



## **Mobile Quest**

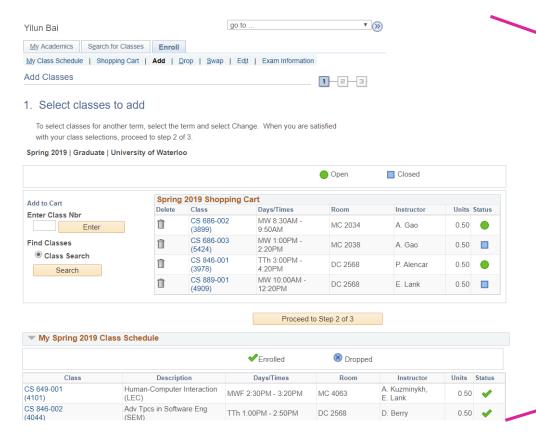


## **Desktop Quest on Mobile**

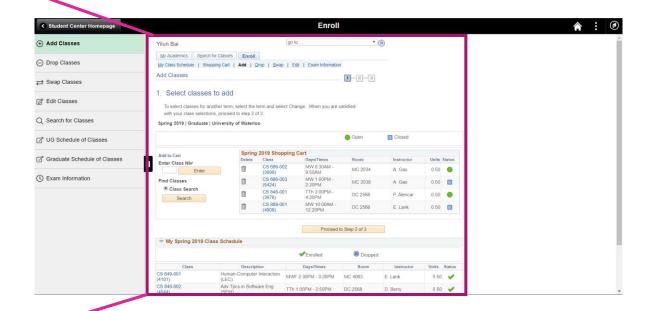




## Old – Add classes page



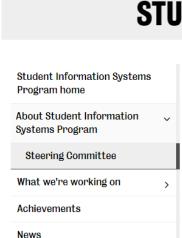
#### New





# **Quest – Student Information System Program**

- The University of Waterloo's Student Information System Program manages our student data, and is called Quest.
- The team manages the maintenance and development of Quest as it relates to:
  - Admissions processing
  - Student course enrolment and grades
  - Course builds and scheduling
  - Awards and financial aid
  - Tuition assessment
- Steering Committee



Interesting facts

WATERLOO

FACULTIES & ACADEMICS

#### STUDENT INFORMATION SYSTEMS PROGRAM

Student Information Systems Program » About Student Information Systems Program »

#### **Steering Committee**

The Steering Committee meets regularly to review priorities relating to the Student Information Systems program with an emphasis on serving the needs fo campus. These are the current members of the Steering Committee.

#### Steering Committee

Name	Title
Bruce Campbell	Chief Information Officer (CIO)
Cathy Newell Kelly	Registrar, Registrar's Office
Daryl Dore	Director, Enterprise Resource Planning
Patricia Hancock	Controller, Finance
David Kibble	Director, Portfolio Management
Jeff Casello	Associate Vice-President, Graduate Studies and Postdoctoral Affairs



SEARCH

## Begin my Case study – email to the Quest People

- Dear Quest people
  - Doing a case study on Quest
  - The new look starting in Feb.
  - Any Software Requirement Specification(SRS) document for Quest?



Dear Bruce, Daryl, and David,

I found your names in the Steering Committee of the Student Information System Program which manages Quest. I'm currently a CS graduate student taking a CS 846 - Requirement Engineering course. For the project of this course, I choose to do a case study on the UWaterloo Quest. I'm looking at where Quest is not doing a good job and figure out what it should be doing instead. And I'm trying to find out why things are the way they are. I noticed that back in Feb. 2019, Quest gets a new look. I wonder if there are any Software Requirement Specification documents on the design/redesign of Quest for me to look at? Or is there any requirement engineering related insight on Quest that may be helpful?

Thank you,

Yilun Bai, Master's
Faculty of Mathematics
David R. Cheriton School of Computer Science
University of Waterloo



♠ Reply all | ✓



## **Email Response from Daryl**

- Quest Oracle PeopleSoft Campus solutions
- Update in Feb. Adopting the Fluid UI from Oracle
- Based on the agile nature, the University has no documentation detailed requirements for changes on the interface
- Consulted each user group to understand the optimal tile layout for the home screen
- Prototypes and changes were implemented based upon feedback

Case Study on UWaterloo's Quest





Hi Yilun,

The system that we call Quest is Oracle <u>PeopleSoft Campus Solutions</u> which is a packaged application used by thousands of other schools as well. It was originally implemented at the University of Waterloo almost 20 years ago and has evolved based upon new features added by Oracle and the changing requirements of the university. The update that you reference in February was to begin using the <u>Fluid Interface</u> that Oracle has standardized across their products. Oracle explains their reasoning and I believe that might be the best source to help you understand how it was designed.

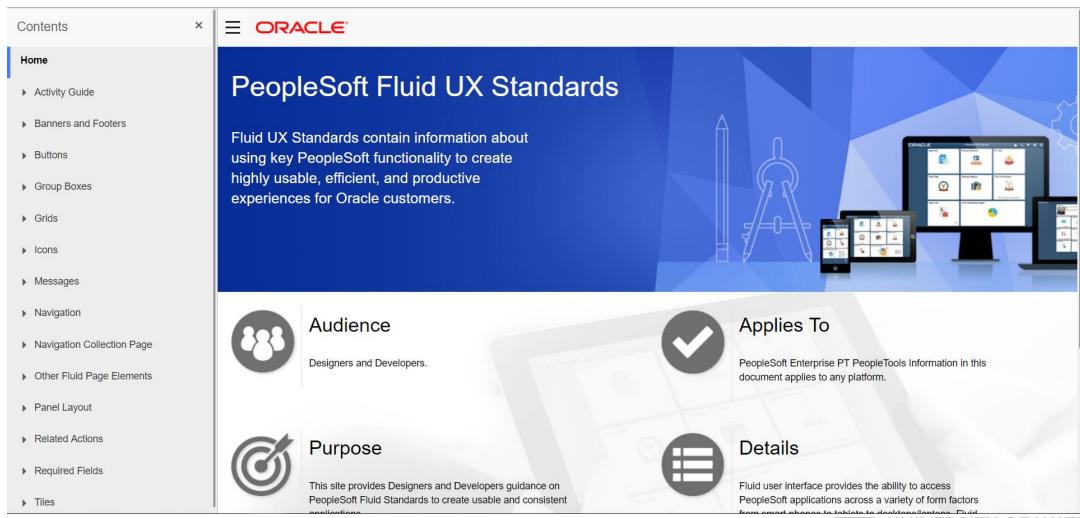
At the university we did not document detailed requirements because the interface is a standard offering and there are limited abilities to customize the interface. It is highly beneficial to stay with delivered functionality for packaged applications so the choices were largely about order of tiles, icons and applying branding. The primary effort for that initiative was consulting with each user group (students, staff, faculty) to understand the optimal tile layout for their home scream. These consultations reviewed prototypes and changes were implemented based upon feedback. Given the agile nature, unfortunately I don't have documentation to share with you.

Please let me know if you have further questions and good luck with your studies.

Thanks,
Daryl Dore
Director, ERP and Data Systems
Information Systems & Technology
University of Waterloo
519-888-4567, ext. 40099

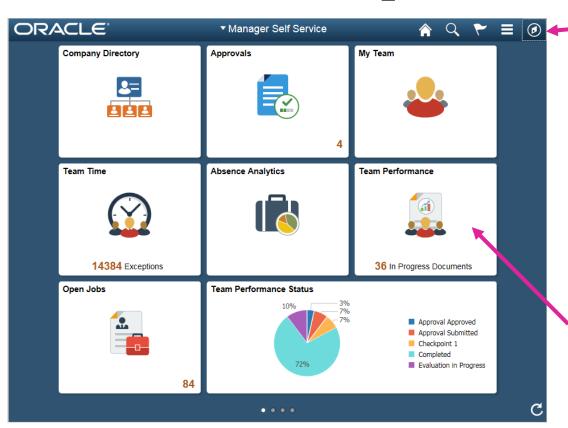


## **PeopleSoft Fluid UX Standards**

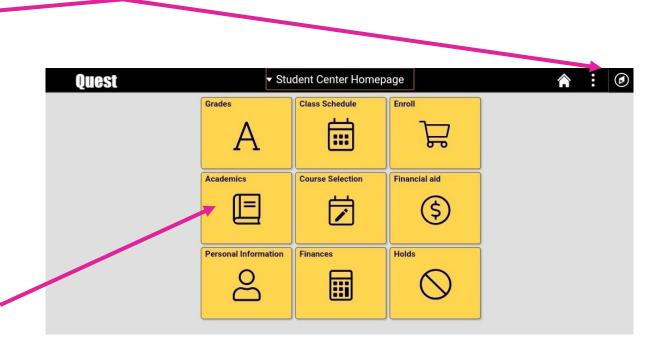


## Oracle – Peoplesoft UI: Fluid VS Quest

## Oracle – Fluid example



#### **UWaterloo – Quest homepage**

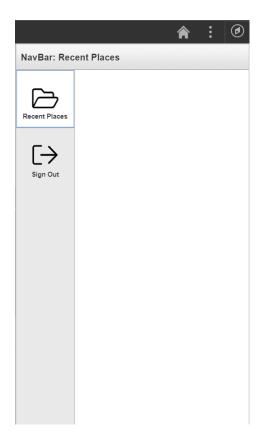


# Oracle – Peoplesoft UI: Fluid VS Quest

#### Fluid - NavBar



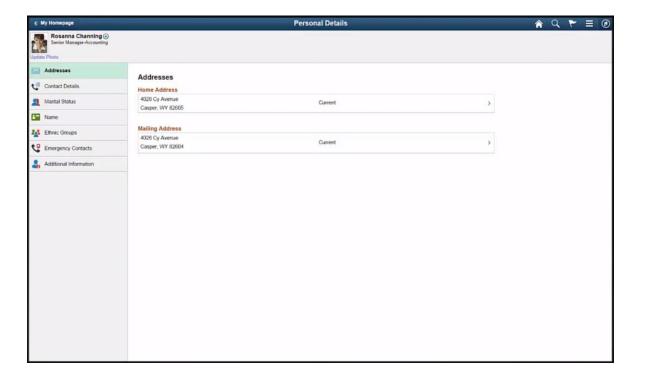
## **Quest – NavBar**



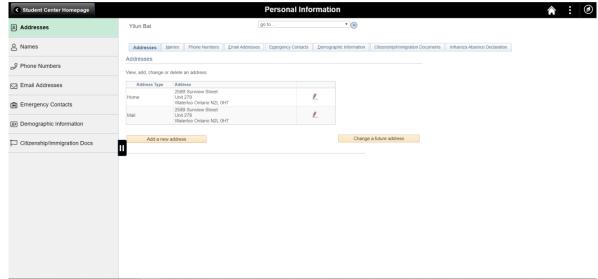


# Oracle – Peoplesoft UI: Fluid VS Quest

#### Fluid - Personal Detail



#### **Quest – Personal Information**



## However...

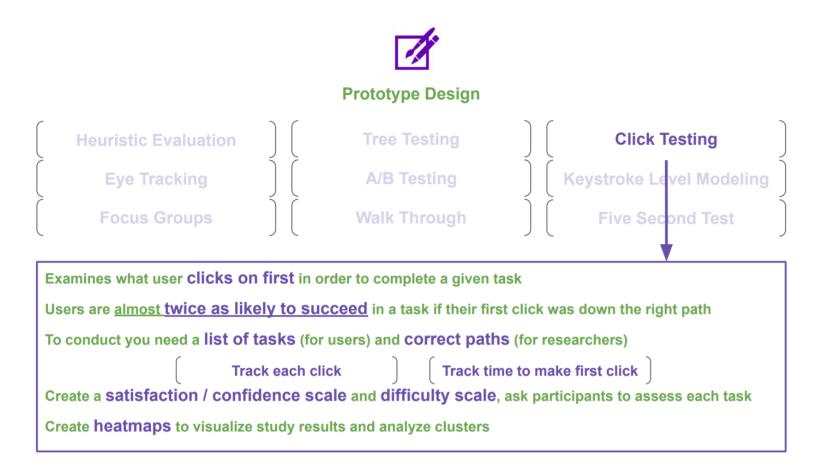
- The updated Quest is more like a hybrid child birthed by Fluid UI and the previous version of Quest
- Only the Homepage and the navigation around the pages are changed
- There are no extra features or feature function improvements since the internal pages remains the same

- Does the update make Quest easier to use?
- Let's test it...



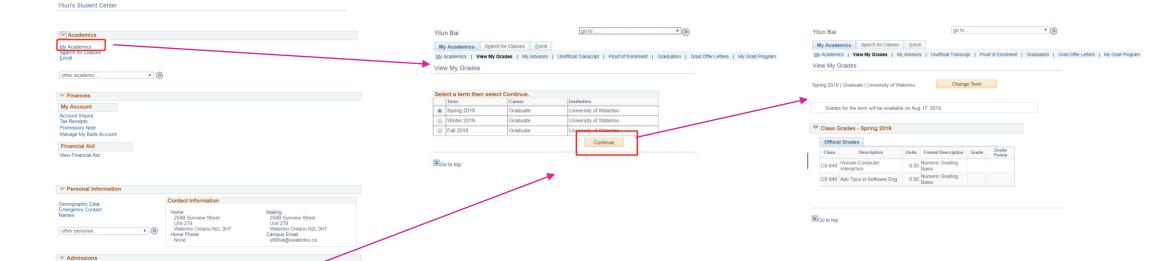
# Method – Click testing (sort of)

- Lesson learned from CS649 – HCI
- Given a task, count the
   # of clicks to perform
   certain task
- Tasks are selected based on the features listed on the official Quest website and commonly used

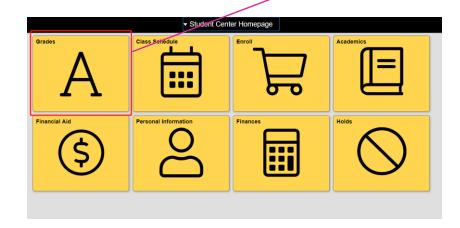


## Task - Check Grade

• Old:



• New:

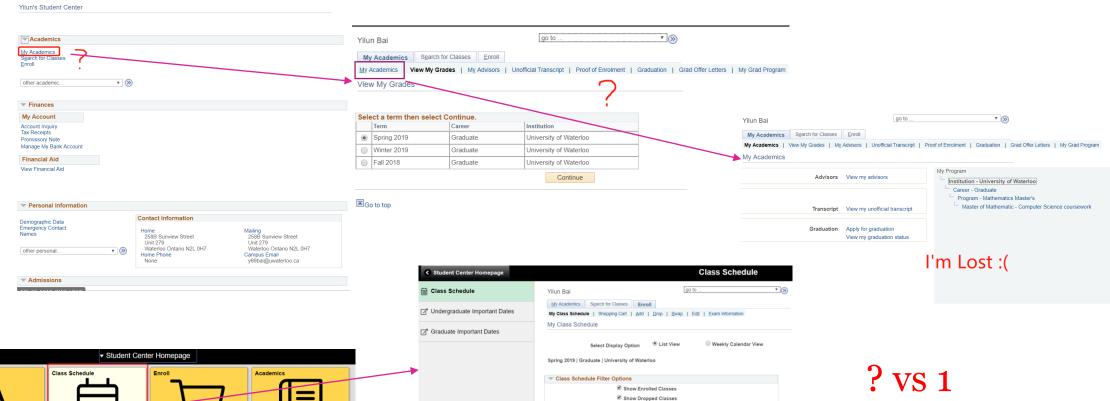


2 vs 2 Draw



## Task - View Class Schedule

• Old:



Show Waitlisted Classes

Grading

Start/End Date

05/06/2019

Kuzminykh, Edward Lank

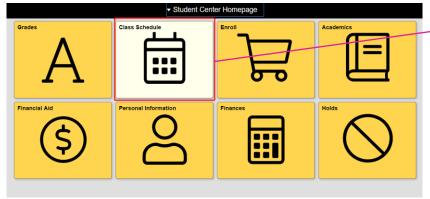
CS 649 - Human-Computer Interaction

0.50

0.50

MWF 2:30PM -

• New:

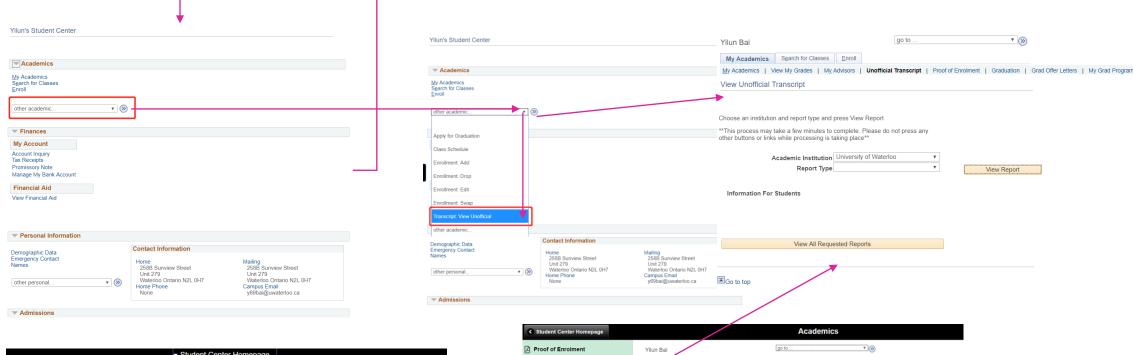


**New Win** 

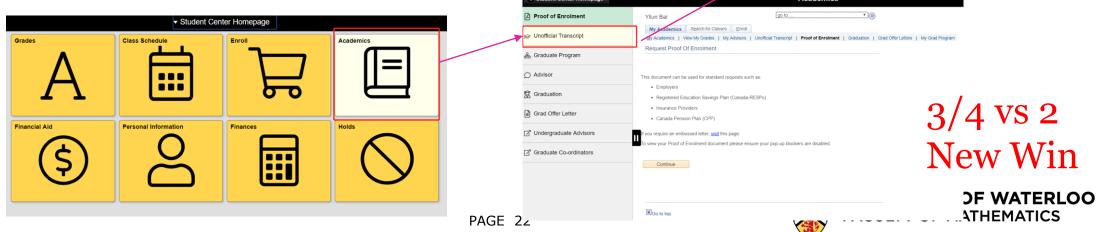


# Task - Check my unofficial transcript

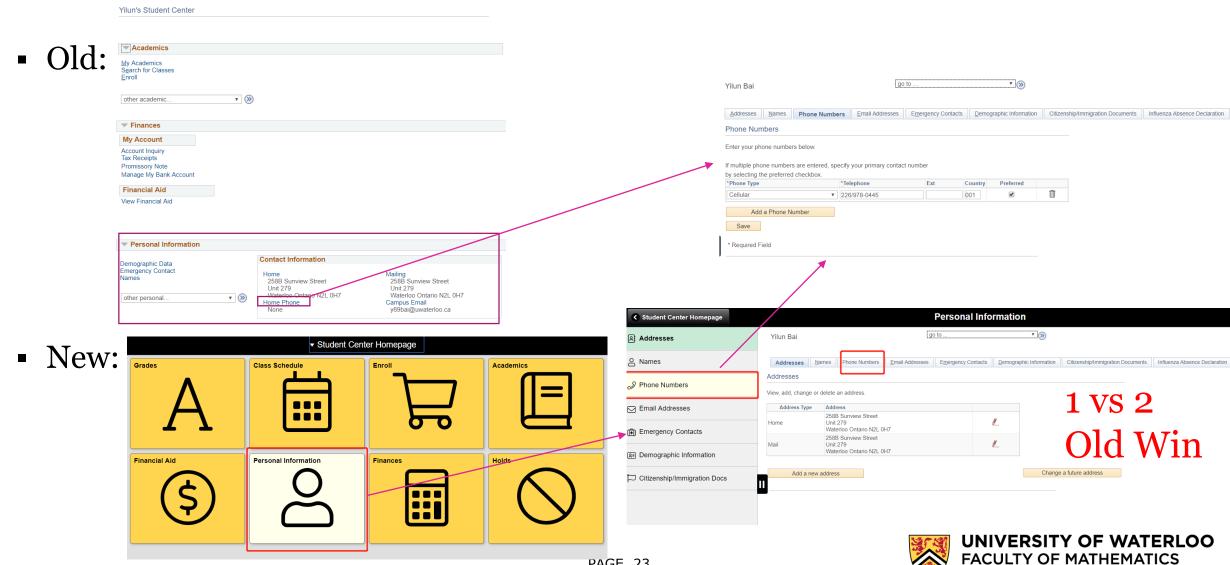
• Old:



• New:



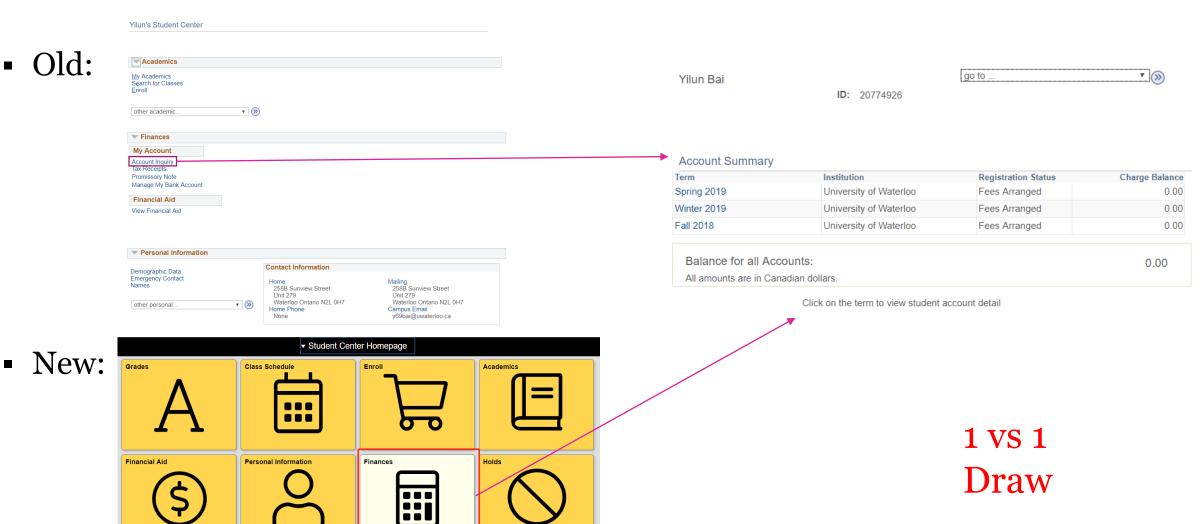
# **Task – Change Phone Number**



PAGE 23

## Task - Check Tuitions

• Old:

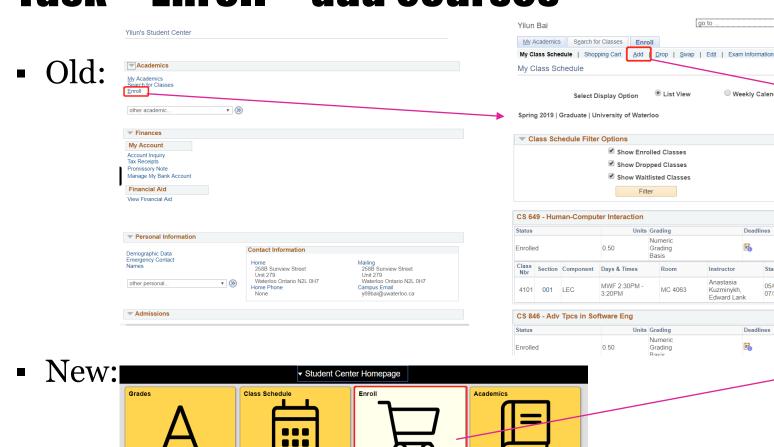


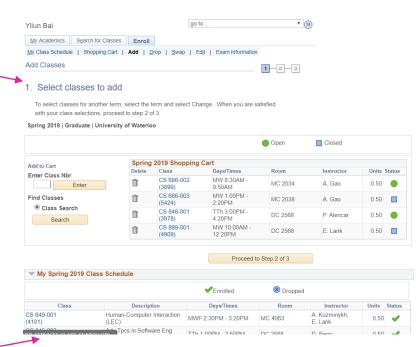
**UNIVERSITY OF WATERLOO FACULTY OF MATHEMATICS** 

## Task - Enroll - add courses

Personal Information

Financial Aid





Weekly Calendar View

Deadlines

Deadlines

Start/End Date

05/06/2019 -

07/30/2019

Instructor

Anastasia

Kuzminykh

PAGE 25

Edward Lank

2 VS 1 New Win

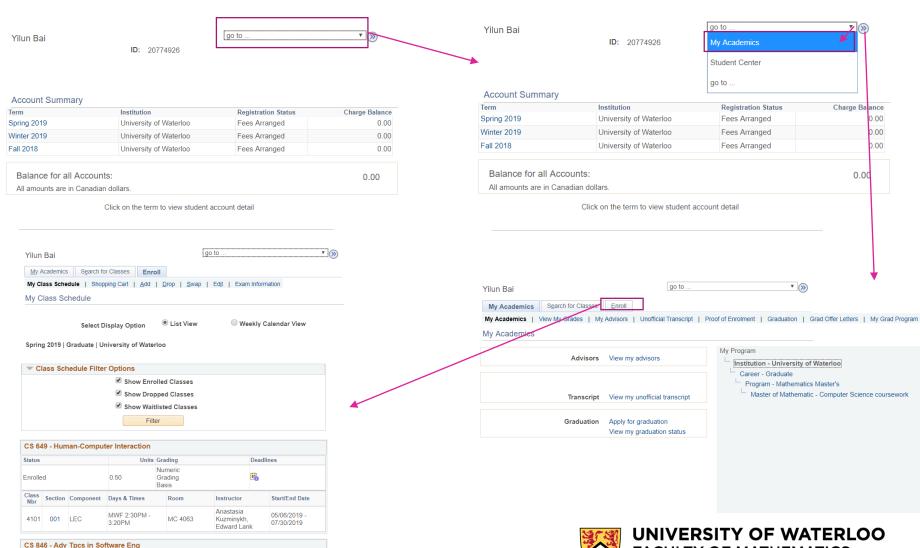


# What if, switch between pages in different categories

Deadlines

Suppose from tuition page, we want to go the class schedule page

• Old:





## What if, switch between pages in different categories

3

 Suppose from tuition page, we want to go the class schedule page

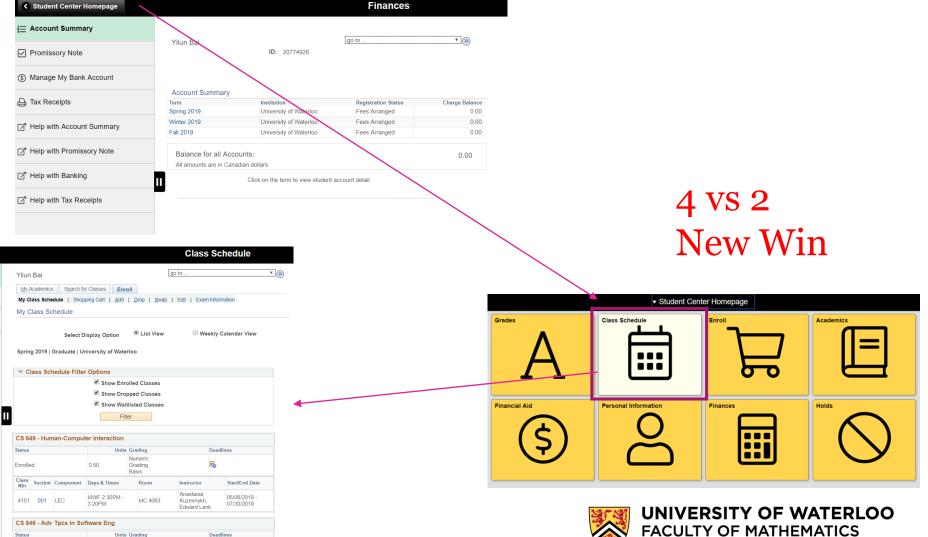
Student Center Homepage

Undergraduate Important Dates

☐ Graduate Important Dates

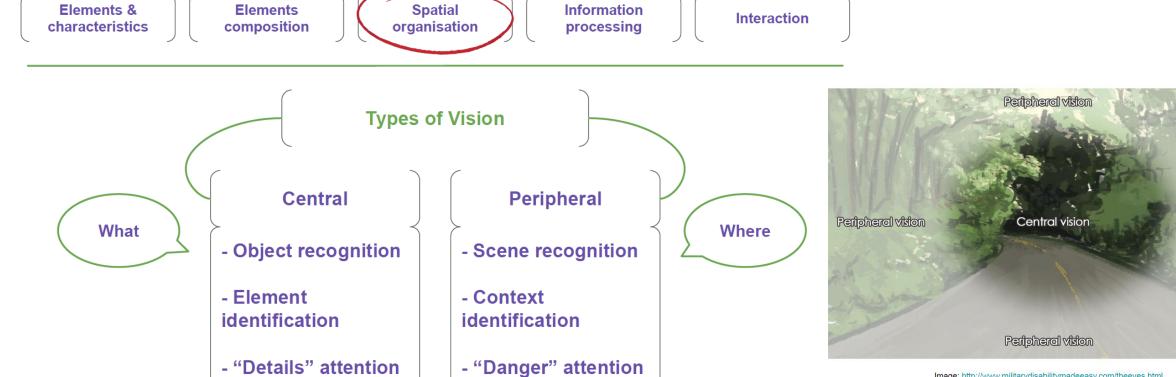
Class Schedule

• New:



## On the UI design side

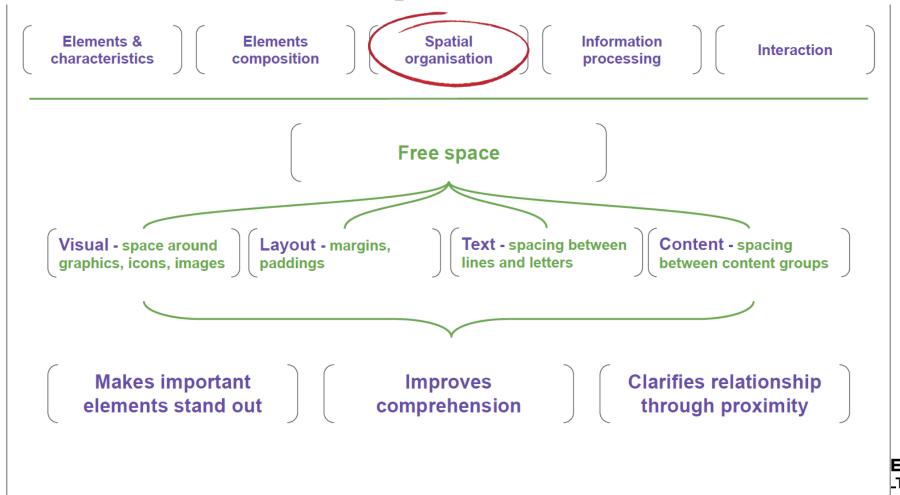
Lesson from CS649 – HCI – Types of vision



UNIVERSITY OF WATERLOO FACULTY OF MATHEMATICS

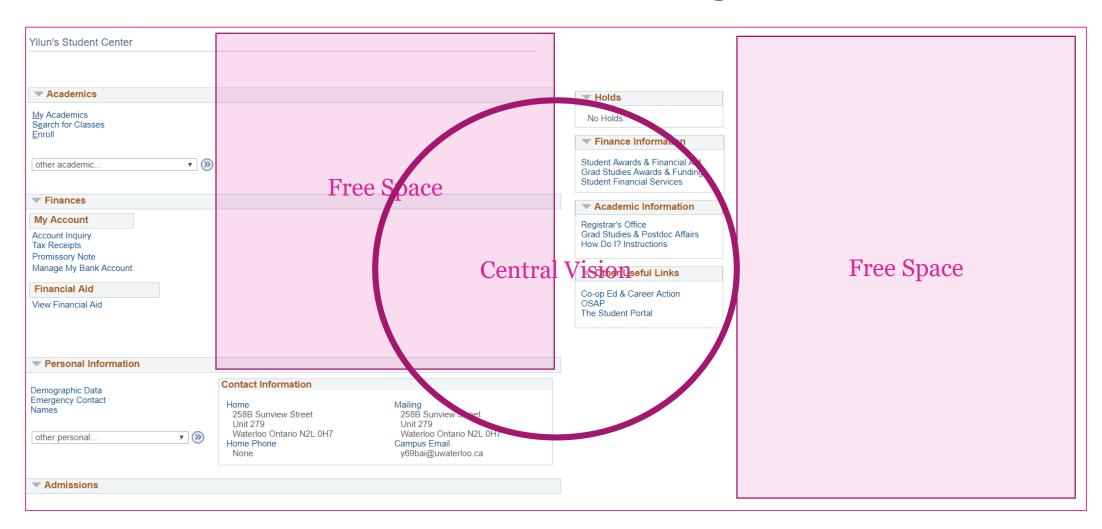
# On the VI design side (Continued)

Lesson from CS649 – HCI – Free Space



ERSITY OF WATERLOO
LTY OF MATHEMATICS

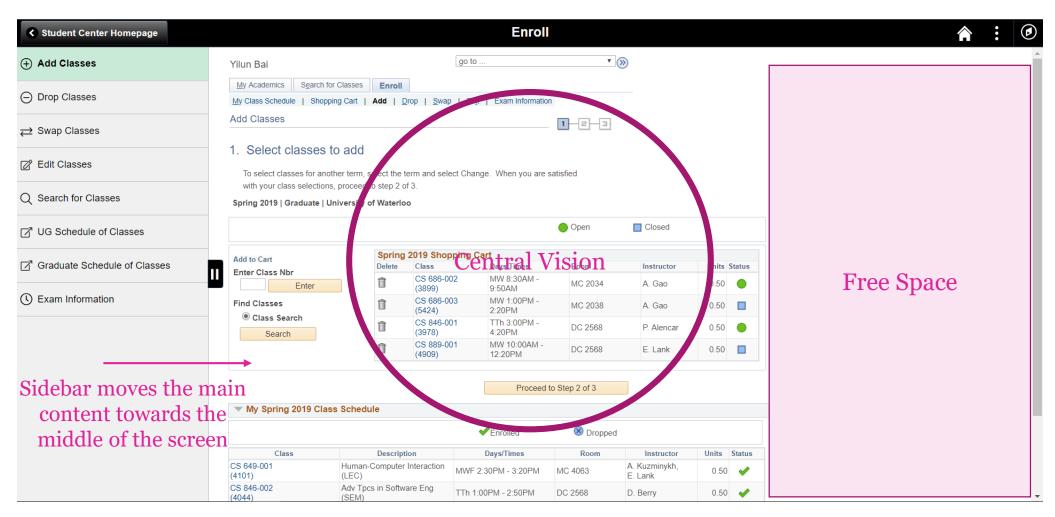
## Another look at the Old Quest homepage



## Another look at the New Quest homepage



## Another look at the New Quest Enroll page



## **Results from the tests**

- Click testing
  - New version of Quest wins 4 out of 7 tasks
  - Old version wins 1 out of 7 tasks
  - Draw happen 2 out of 7 tasks
- The new Quest puts important content more towards the middle of the screen compare to the old version
- But free spaces on the page are still massive

Overall, the updated Quest performs slightly better than the old version

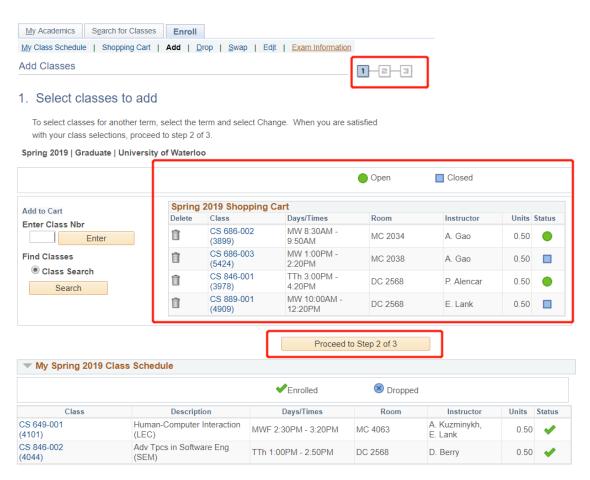
#### Issues discovered during the tests:

- The page/section/tab hierarchy is a mess e.g. Class Schedule can be viewed under Enroll, not My Academic
- The function of sidebar navigation and the original top bar page navigation are redundant; Some also not consistent
- Limited information displayed on the Homepage
- Both versions couldn't handle efficient transfer from subpage to another subpage without going back to the Homepage
- Large empty spaces on the right side of the page are wasted on basically every page



## One big complaint – Class enrollment

- In the current Quest class Enroll process, users need to perform 3 steps:
  - 1. Select classes to add put in the shopping cart
  - 2. Confirm classes
  - 3. Finish enrolling
- Often times we encounter failures due to time conflict with other courses. Need to go back to change the shopping cart and try again
- Especially for undergrad students who takes a lot of courses which have different section offerings
- Need users to manually check every time period.
- No visualization on the schedule for selected potential courses





## Things that are not working well on Quest

- The page/section hierarchy is a mess, e.g. Search for classes is on the same hierarchy with Enroll, but also can be performed under Add in Enroll...
- The function of sidebar navigation and the original top bar page navigation are redundant; Some also not consistent
- Limited information displayed on the Homepage
- Both versions couldn't handle efficient transfer from subpage to another subpage without going back to the Homepage
- Large empty spaces on the right side of the page are wasted on basically every page
- Feature work flow is lengthy, i.e. class enrollment
- Overall UI lack of consistency Black and Gold
- Toolbar & NavBar on top does basically nothing, e.g. Recent Places in NavBar
- The Sidebar and the top banner does not follow the changes of the pages if using the old "Go to" navigation instead of the SideBar
- ...



## **New features suggested**

- Schedule builder calendar views for each possible class arrangement
- Search functionality: search bar in the top banner for searching sites under UWaterloo
- Quick links widget on the right side of every page for easy changing between pages under different categories
- Automatic exam information update Final exam schedule, date, location, seat...
- Critical information/Notification important due date (tuition, class enrollment/drop), exam date approaching, etc.
- Customizable Homepage tiles, add/remove tiles
- Change password within Quest
- **-** ...



## **Conclusion**

- There are requirement engineering documents & specifications for building Quest properly, i.e. the <u>PeopleSoft Fluid UX Standards</u>
- But the Quest people decide not to implement Quest based on it completely. Why?
- Because they want to keep the familiar original site for easier user adoption and migration
- And the "New" Quest becomes the "hybrid child" of Fluid and the old Quest
- If it ain't broke, don't fix it. But Quest is "broke".
- Bottom line, Quest actual site needs an overhaul either strictly following the <u>PeopleSoft Fluid UX</u> <u>Standards</u>, or building from ground up completely

#### Quest navigation to get a new look

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The tile-based navigation structure (like the mobile view now) offers students, faculty, and staff a modernized, user-friendly experience. And while the initial style of the page and how you navigate the tiles will be different, the actual site content and how you use those pages will remain the same.

These usability improvements are the result of a user engagement survey that was conducted in fall 2018 and offer clients:

- An improved work flow Not at all, no feature improvement whatsoever
- Enhanced navigation options
   Sort of, but with issues
- Reduced clicking
   By a tiny bit
- A modern look and feel Not by 2019 standard
- Easier access to help resources Don't know what this means
- An experience that aligns with that of Quest Mobile Not at all

This update also brings new background technology that will allow for greater adaptability and support during future deployments.

Be sure check back for updates on this work.



## One last thing...

- Anyone has any other struggles with Quest?
- What other features would you like to see in Quest?

- I'll submit the feedback and suggestions through the Quest Feedback form, or you can do it on your own.
- Let's make UWaterloo Quest better!
   maybe not for us but for future students;)

#### Quest Feedback

This form is to provide feedback on user experience or features of Quest.

	ormation and privacy: questions regarding the collection of information on this form can be directed to t
<u>for</u>	n administrator.
Wh	at is your role? *(required)
0	Student
0	Applicant
0	Faculty
0	Staff
0	Alumni
0	Other
Plea	ail address ase add your email address if you wish to be contacted regarding your feedback.
Тур	ase add your email address if you wish to be contacted regarding your feedback.  e of feedback *_(required)
Тур	ase add your email address if you wish to be contacted regarding your feedback.  e of feedback *_(required)  User experience
Typ	e of feedback (required)  User experience  Feature request
Typ	ase add your email address if you wish to be contacted regarding your feedback.  e of feedback *_(required)  User experience
Plea	e of feedback (required)  User experience  Feature request
Typ	e of feedback *_(required)  User experience  Feature request  Help / support
Typ	e of feedback *_(required)  User experience  Feature request  Help / support

SUBMIT





THANK YOU!