

# BannerWeb Redesign

## Introduction

The WPI BannerWeb application developed by Ellucian Company L.P. is used by approximately 5000 WPI students and employees each year to handle administrative tasks such as selecting courses and viewing financial statements. While using BannerWeb and discussing its usability amongst our peers as students of WPI, we have found that the information rich application can sometimes be confusing and/or difficult to use. Although BannerWeb is functional and has been for many years to accomplish WPI's goals, we want to further enhance the usability of the application and thus make the experience more enjoyable and efficient.

To give context, we provide background on the creators of BannerWeb and identify potential pain points within the organization. Then, we list BannerWeb's existing problems and how we plan to solve them.

# Ellucian Company L.P.

Ellucian develops higher education software solutions to academic institutions for faculties, staff, and over 20 million students. They have over 2,700 customers in more than 50 countries. Ellucian's goal is to enhance their clients' user experiences by adding web accessible personalized content and streamlined integration.

Although Ellucian wants to revamp the look of institutional self service sites, called BannerWeb, the templates they use are outdated for existing schools. For example, below are images of current BannerWeb websites used by faculty and students for managing school services.

The figure displays four side-by-side screenshots of Ellucian BannerWeb login pages:

- Central Connecticut State University:** Shows a "Secure Access Login" form with fields for "BlueNet account username" and "Password". It includes a link to "Click here for Help with Login".
- Worcester Polytechnic Institute:** Shows a "User Login" form with fields for "WPI Username" and "Password", or "WPI ID Number" and "PIN". It includes links for "Tuition Bills and Payment Options" and "Click here to make payment without a WPI PIN".
- DAVIDSON Banner Self-Service:** Shows a "Proxy Access Login" form with fields for "E-mail Address" and "PIN". It includes a note about PIN sharing and links for "Login" and "Forgot PIN".
- Lawrence Technological University:** Shows a "User Login" form with fields for "User ID" and "PIN". It includes a note about User ID/PIN and links for "Login" and "Forgot PIN".

Each page includes standard copyright and release information at the bottom.

*Ellucian BannerWeb sites for different institutions*

All of these websites have a similar theme with the university banner at the top, information about logging in, the login method, and the copyright information about the company. The pages look too simple, contain too much text, and are not modern. The webpages of each university should be unique and representative of the school, which are aspects that are not captured through the generic template used for current BannerWeb websites. Although Ellucian has a more modern version of BannerWeb that features personalized content, streamlined integration of 3rd party services, and an improved user experience, WPI does not utilize it. The team will be focusing on redesigning the WPI BannerWeb experience, pictured in the top right, which may be a model that can be extended to other schools. In the next section, the weaknesses of WPI's Self Service BannerWeb website will be explained.

# WPI's BannerWeb

WPI's BannerWeb is a website that organizes and processes WPI's required logistical admin-related tasks for its users. For students, these tasks include activities like paying tuition, viewing grades, updating personal information, registering for courses, and looking up one's mailbox combination. For employees, these tasks include setting up one's direct deposit information or requesting a higher salary. Overall, BannerWeb handles many of the necessary logistical activities that students and employees need to complete.

## Problem

Even though WPI's BannerWeb is functional and has been in use for many years, many students complain about its poor user experience. In our investigation of the program, we found several points of weakness and grouped them into 3 categories related to user experience design: aesthetics, navigation, and integration.

### Aesthetics

The first problem is the BannerWeb aesthetic that is not consistent with the WPI theme. The WPI homepage contains beautiful pictures, interactive buttons, balanced colors, and represents WPI as a high quality academic institution. BannerWeb, on the other hand, is made up of blue and purple hyperlinks on a simple white background with an awkwardly spaced WPI logo fixed to the left top corner. Although the program works to an extent, BannerWeb's visual style does not represent WPI's standard of quality and modernity potentially leading to negative user experiences. With the high availability of modern web design tools for developers and increased expectations of internet users for stylistic content, a visual makeover for BannerWeb is feasible and necessary to create a positive user experience.



*WPI Homepage*

A screenshot of the WPI BannerWeb homepage. At the top, there is a navigation bar with links for Main Menu, Student Services & Financial Aid, Personal Info, Employee, and Proxy. Below the navigation bar is a search bar with a "Go" button. A yellow horizontal bar displays a welcome message: "Welcome, Joseph H. Yuen, to the WWW Information System! Last web access on Oct 19, 2020 at 06:46 pm". Below this are several sections of hyperlinks:

- WPI Alerts**: Includes "New \*\* WPI emergency communication system".
- Student Services & Financial Aid**: Includes "Request registration, academic records, student accounts, billing & payments, medical insurance and Financial Aid information".
- Personal Information**: Includes "Set up Computer Accounts; Change your PIN; set up, view or update your address(es), phone number(s), e-mail address(es), emergency contact information & marital status; View name change & social security number change information; Request Microsoft Software".
- Employee**: Includes "View off benefits, leave or job data, paystubs, W2 and T4 forms, W4 data, effort reporting".
- Worldcat FOAPAL lookup**: Includes "Look up FOAPAL to Worlcat translations".
- Change Banner/Oracle password**: Includes "Set your Banner/Oracle password to your Windows password".

At the bottom of the page, there is a link to the "WPI Homepage" and copyright information: "RELEASE: 8.8.3" and "© 2020 Ellucian Company L.P. and its affiliates."

### *WPI BannerWeb Homepage*

## Navigation

Many students have told us that they could not easily navigate BannerWeb when using it for the first time. We think that the initial confusion is due to the overwhelming number of links, lack of visual feedback, and confusing navigation bar.

### Overwhelming Number of Links

After clicking on the *Student Services and Financial Aid* tab, the user is presented with 12 different hyperlinks that may contain a brief description. By presenting the user with 12 different links, the user may feel overwhelmed by the amount of options. Even if a user selects a link such as *Registration*, they are then presented with 11 new links which may overwhelm them further. And since not all of the hyperlinks have a description, the user may not know how to get where they need to go.

### Lack of Visibility of System Status

In addition, once the user has clicked on a link, there is no visual indicator such as a breadcrumb trail as to how deep the user is in the system. If the user clicks on *Student Services and Financial Aid*, *Registration*, and then *Look Up Classes to Add* in that order, the user does not have an on screen method of recalling how they got to that page or how to immediately return back to the *Registration* page.

### Confusing Navigation Bar

Lastly, upon logging into the BannerWeb homepage, the navigation bar at the top of the screen fills in the *Main Menu* and *Personal Info* tabs with color. When the user clicks on other tabs such as *Employee*, only that tab is filled in. When the user selects the *Personal Info* tab, the *Main Menu* tab is also highlighted like in the homepage. This inconsistency may confuse users and lead to a negative user experience.



Main Menu Student Services & Financial Aid Personal Info Employee Proxy

Search  Go

SITE MAP HELP EXIT

Welcome, Joseph H. Yuen, to the WWW Information System! Last web access on Oct 19, 2020 at 06:46 pm

**WPI Alerts**  
\*\* New \*\* WPI emergency communication system

**Student Services & Financial Aid**  
Registration, enrollment, course schedule, academic records, student accounts, **billing & payments**, medical insurance and Financial Aid information.

**Personal Information**  
Set up General Accounts, Change your PIN, set up, view or update your address(es), phone number(s), e-mail address(es), emergency contact information & marital status. View name change & social security number change information. Request Microsoft Software.

**Employee**  
Time sheets, time off, benefits, leave or job data, paystubs, W2 and T4 forms, W4 data, effort reporting.

**WorldCat TOADAL lookup**  
Look up books in the library's collection.

**Change Banner/Oracle password**  
Set your Banner/Oracle password to your Windows password.

[WPI Homepage](#)

RELEASE: 8.8.3

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*WPI Homepage*



Main Menu Student Services & Financial Aid Personal Info Employee Proxy

Search  Go

RETURN TO MENU SITE MAP HELP EXIT

**Student Services and Financial Aid**

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**Check-In**  
All undergraduate and Graduate students MUST CHECK-IN each semester.

**Registration**  
Check your registration status; Add or drop classes; Select variable credits, grading modes, or levels; Display your class schedule.

**Student Records**  
View your holds; Display your grades and transcripts; Degree evaluations; Download enrollment certifications.

**Academic Advisor Main Menu**  
Links to Advisor Information and Maintain Advisor Contact Preferences.

**Student Accounts**  
Check status of your Student Account, tuition, fees and related charges, Residence Hall Damage Charges, Housing Contract, and Rev 1951 1994 Tuition Statement.

**Financial Aid portal**  
If you wish to request aid reductions or decline aid you may do so via the online link on your 2020-2021 aid award in the portal.

**MEDICAL INSURANCE Waiver/Purchase \*\*Required Annually\*\***

**View Holds**

**Additional Information for Students**  
Click this link for additional student related web pages including:

- Student Policies
- Student Course Reports (Course Evaluation Results)
- Campus Map
- Campus Mailbox
- Guest Building Activities
- ID Images
- ID Images Survey

**Answer a survey**  
Answer any surveys that are available to you.

**ADLN Course Evaluations**  
Course Evaluations for ADLN courses now online. Click here to evaluate the courses taught by you.

**Curriculum Change Request**  
Submit a change request for major, concentration or academic advisor.

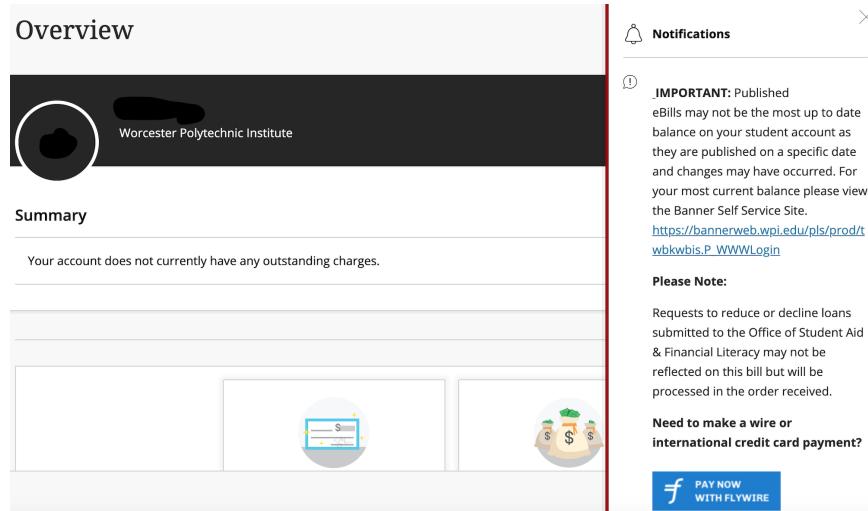
RELEASE: 8.8.3

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*WPI BannerWeb Student Services and Financial Aid*

## Integration

BannerWeb directs users to different programs such as Flywire to handle payments and CollegePlanner to handle course scheduling. Although integration of 3rd party software is not a problem in itself, the software can be inconsistent with the BannerWeb user experience resulting in user confusion and at worst distrust. Our peers conveyed that they did not initially know whether or not Flywire was connected to BannerWeb and were hesitant to use it as the program did not look like it was associated with BannerWeb. By customizing Flywire and other 3rd party programs to seamlessly integrate into BannerWeb both visually and functionally, users may not be jarred by 3rd parties and have confidence that their actions are related to WPI.



*Flywire payment platform*

## Goals

### Business Goals

#### **Improve the Product Quality**

We noticed that Ellucian was involved in the production of BannerWeb for many universities, but the quality of these websites varied, ranging from fashionable to old design styles. In addition, we saw many schools' BannerWebs were customized with the schools styles. From this, we understand that Ellucian aims to improve the quality of their products over time and create a customized experience for their clients.

#### **Promote Ellucian Products**

Ellucian's website contains success stories from their university clients. From this, we know that Ellucian seeks to promote themselves by providing a high quality product and distinguish themselves from the competition.

### User Goals

#### **Improve BannerWeb's Usability**

There are many problems in the current design of BannerWeb as seen above that are related to the usability of the system. Since we want users to complete their intended tasks with minimal difficulty and finish with a positive experience, we want to improve BannerWeb's usability.

## Methodology

We split up our methodology into 2 steps: analysis and design. In our analysis step, we plan to map out the current program in detail with the following techniques so we can understand how to best redesign the product. In the design step, we plan to produce a series of prototypes and test them with users.

## Analysis

### User Persona

The purpose of personas is to create reliable and realistic representations of our target segment. They help us to focus decisions surrounding site components by adding a layer of real-world consideration to the conversation.

### Journey Maps

Journey mapping is used to understand the BannerWeb user experience in its entirety. It helps us to identify user needs, user responses, pain points, and opportunities in a systematic way.

### Card Sorting

Card sorting can be used to help redesign BannerWeb's information architecture. In a card sorting session, we will reorganize system features into categories to help us redesign the navigation system.

## Design

We will start by producing a low-fidelity prototype. After that, we will perform user testing with it to ensure that the design meets user needs. After user testing and redesign, we will launch a hi-fi design prototype.

## Conclusion

Three of the problems we identified with Ellucian's BannerWeb product, in the case of WPI's BannerWeb, are aesthetic deficiencies, unclear and confusing navigation, and problems with integrating 3rd party software. To address these issues, we will craft user personas and journey maps based on the current BannerWeb implementation to empathize with a user's experience and produce a more efficient information structure for the program using card sorting. Once the analysis is complete, we will design prototypes of BannerWeb and conduct testing on them.

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