

# A HOT TAKE ON COLD FOOD

*Sami Bou Ghanem & Natalie Rshaidat*

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After pondering for hours on an interface that we could improve, our stomachs started to growl with a vengeance. We pulled up the brown dining site and wasted almost ten minutes scrolling thru images of foods that we have NEVER seen at any of the eateries to finally get to the actual menus. Due to our frustration and hunger we decided to redesign the [Brown Dining Services Website](#). The Brown Dining website, as shown in Figure 1, allows students to view times and menu options at the various Brown eateries on campus. This interface also allows students to effectively choose a meal plan based on their needs, make healthy dining choices at Brown, request delivery for students who are sick, and learn about the dining service at Brown.

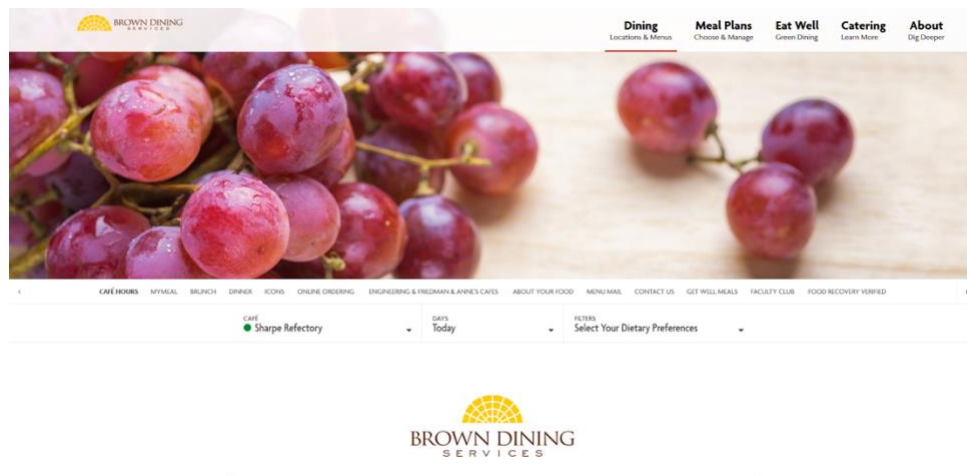


Figure 1. The Brown Dining Website's Home Page

that we could improve.

## Usability Analysis:

We started our redesign process by creating a comparison chart, as seen in Figure 2, on the usability criteria from usability.gov on the website to find key areas

	Original Interface	Redesigned Interface
<b>Intuitive Design</b> <i>a nearly effortless understanding of the</i>	<ul style="list-style-type: none"><li>Unintuitive vertical ordering of information: Schedule → 'My Meal' → Menus and Information.</li></ul>	<ul style="list-style-type: none"><li>Consistent flow of information: zig-zag</li><li>Sidebar navigation menu (as you scroll the current page will</li></ul>

<i>architecture and navigation of the site</i>	<ul style="list-style-type: none"> <li>Valuable glance-space taken by redundant images. Hard to conceptualize where information is, and what information is available.</li> <li>The site also lacks consistent design patterns by its culmination of a multitude of patterns to organize the information: from zig-zag to one column paragraphs to two column paragraphs to add your email for subscription on the middle of the page and feedback options misplaced on the page.</li> </ul>	<ul style="list-style-type: none"> <li>contain an arrow and be highlighted)</li> <li>Page organization is more intuitive and has a clear connection with the title of the pages.</li> </ul>
<b>Ease of Learning</b> <i>how fast a user who has never seen the user interface before can accomplish basic tasks</i>	<ul style="list-style-type: none"> <li>Because very valuable space is taken at the top of the screen with images of sweet potato, it is not immediately apparent what information you can get when you first visit the site.</li> <li>The green or red indicator at the dining hall drop-down menu is a nice affordance indicating that clicking it would reveal more helpful information.</li> <li>The user will likely be lost on how to navigate the site initially and will spend most of their time navigating and learning the site for the content they actually want. This results in a steep learning curve.</li> </ul>	<ul style="list-style-type: none"> <li>Sidebar relationship to page content is aided by a highlight box and an arrow to ease learnability of this affordance</li> <li>Navigation bar made more apparent, so that a new user can easily see all the contents and navigate easily.</li> <li>Fixed the ordering so the information's sequence is more intuitive.</li> </ul>
<b>Efficiency of Use</b> <i>How fast an experienced user can accomplish tasks</i>	<ul style="list-style-type: none"> <li>Low efficiency of use: need to click multiple things and scroll down to get to the useful information. Especially difficult on the phone, where the buttons are small and more difficult to click.</li> <li>For non menu related pages: An experienced user would have already learned how to use the navigation menu bar and would have already realized which buttons work and don't work, thereby allowing them to get to their desired content quickly.</li> </ul>	<ul style="list-style-type: none"> <li>An experienced user can locate the content they desire in a matter of two clicks. Thereby, increasing the efficiency of the site.</li> </ul>
<b>Memorability</b> <i>after visiting the site, if a user can remember enough to use it effectively in future visits</i>	<ul style="list-style-type: none"> <li>The unintuitive sequencing of information makes it harder to remember where everything is on the site and what information you can find.</li> <li>The drop-down menu of dining halls is pretty intuitive and memorable to use.</li> <li>The user has to remember the relationship between the menu bar and the content below it, the left and right arrows on the menu bar do not work, and to get the pages on the far right you have to scroll through the menu bar options; collectively reducing the ease of memorability of the page.</li> </ul>	<ul style="list-style-type: none"> <li>The user only has to remember the relationship between the navigation sidebar and the page content, which is more apparent with a red arrow, so even a novel user can use it effectively on their initial visit.</li> </ul>

Figure 2. Usability Comparison Chart

With our bag of ideas on how to improve such an unappetizing site, we moved on to make wireframes of each page, shown in Figure 3.

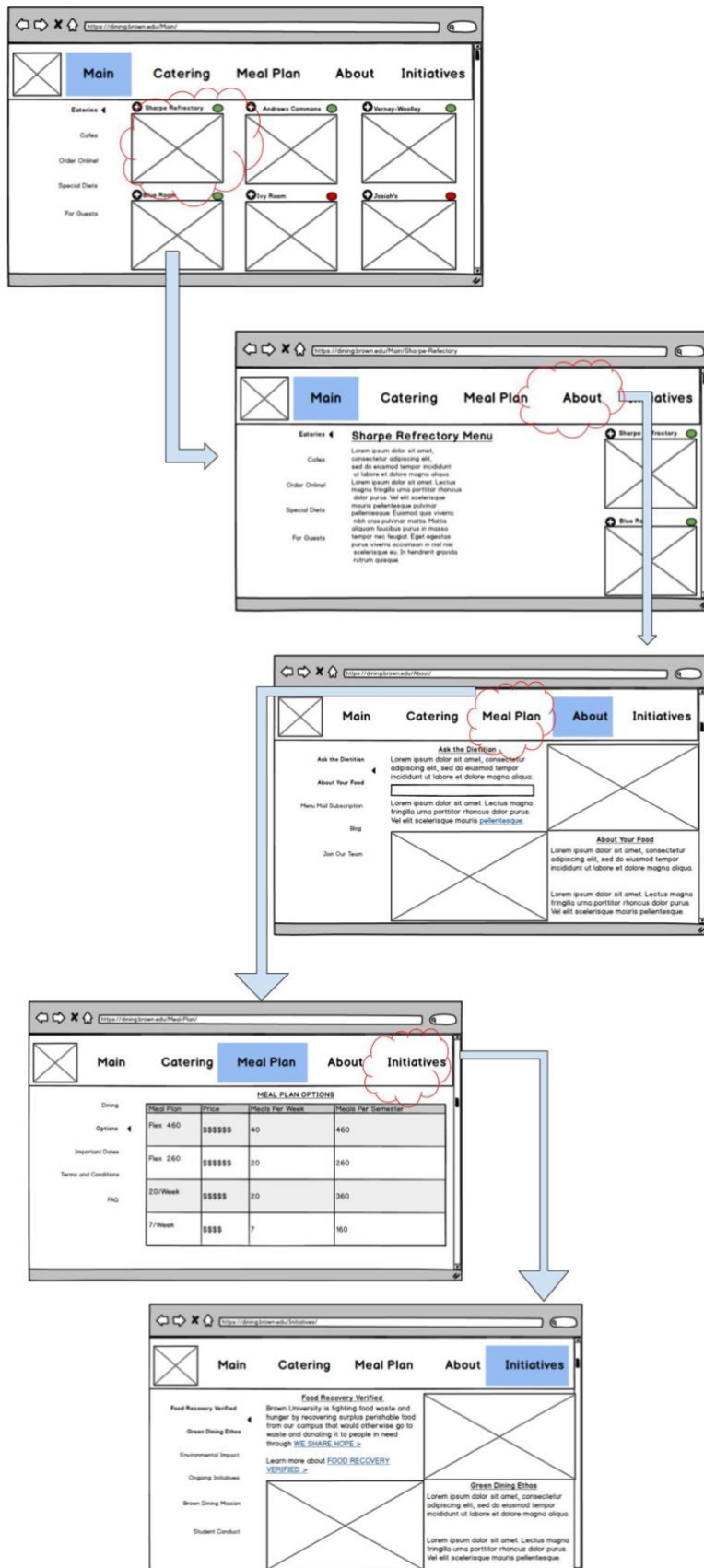


Figure 3. Wireframes of the Improved Website

## Visual Redesign:

With our new wireframes we wanted to make a visually appealing high-fidelity interface of the redesigned website. We made two redesigns in Figma of a 4K widescreen screen as shown in Figure 4 and 5.

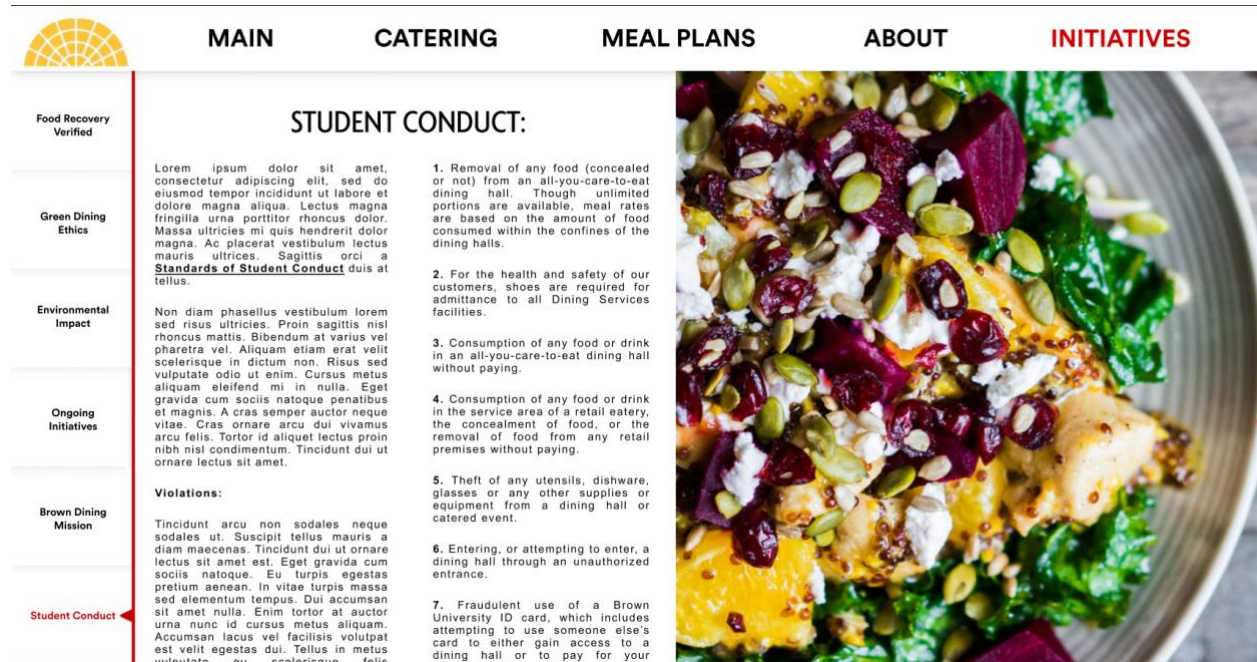


Figure 4. The Initiatives Page

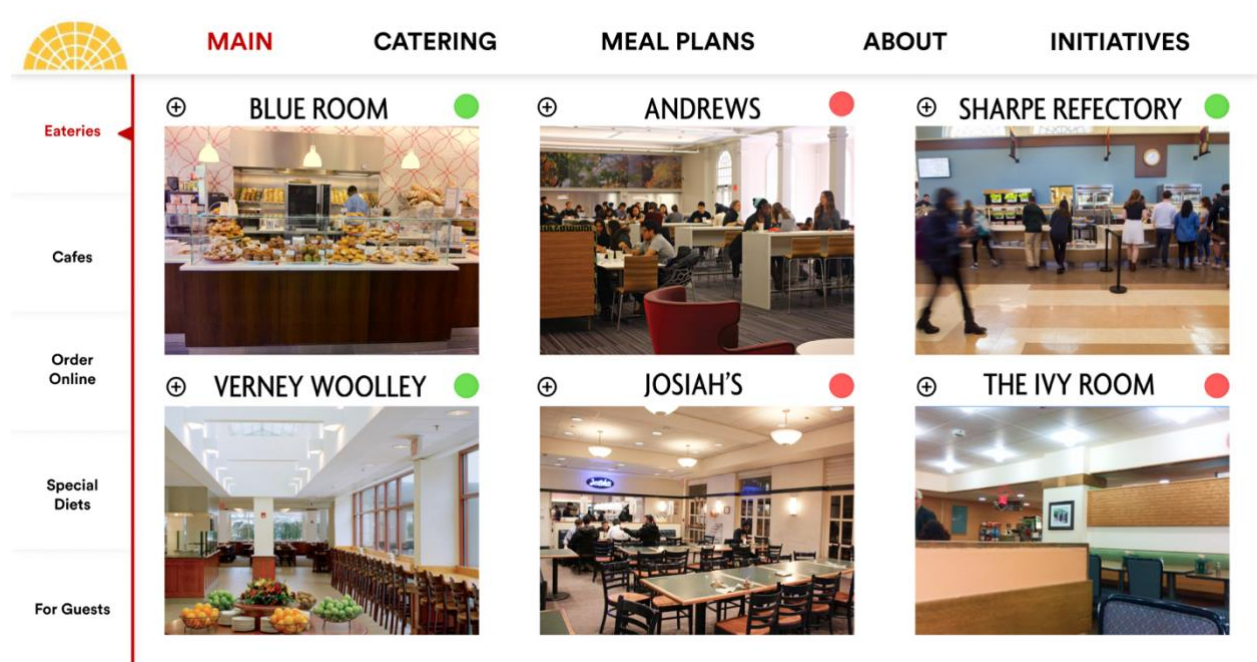


Figure 5. The New Home Page.

We justified each of the changes we made below:

- The organization of pages was not intuitive, so we reorganized the pages into 5 categories: Main (Menus and times), Catering, Meal Plan, About, and Initiatives. We did this by listing all the pages on the website and found those 5 common themes after highlighting related pages.
- To increase efficiency we put the names of eateries, images of what they look like, and a green/red circle to indicate the eatery's open status on the main page. When the user presses either the image or the name of the eatery, the image will expand and transform into it's menu with two of the eateries from the previous page will stay to the right of the menu. The user can scroll to the right to access the other eatery icons.
- We moved the navigational menu bar for the subpages to a left sidebar. We also added a red arrow to indicate where you are on the page relative to our new navigational sidebar to ease learnability of the site. We also made the pages names on the sidebar that are currently on shown on the page become bold.

### **Responsive Redesign:**

Before we actually made a responsive webpage, we wanted to go into more detail about how each of our designs would affect different screen sizes. We annotated our redesigned home pages with such descriptions below in Figure 6.



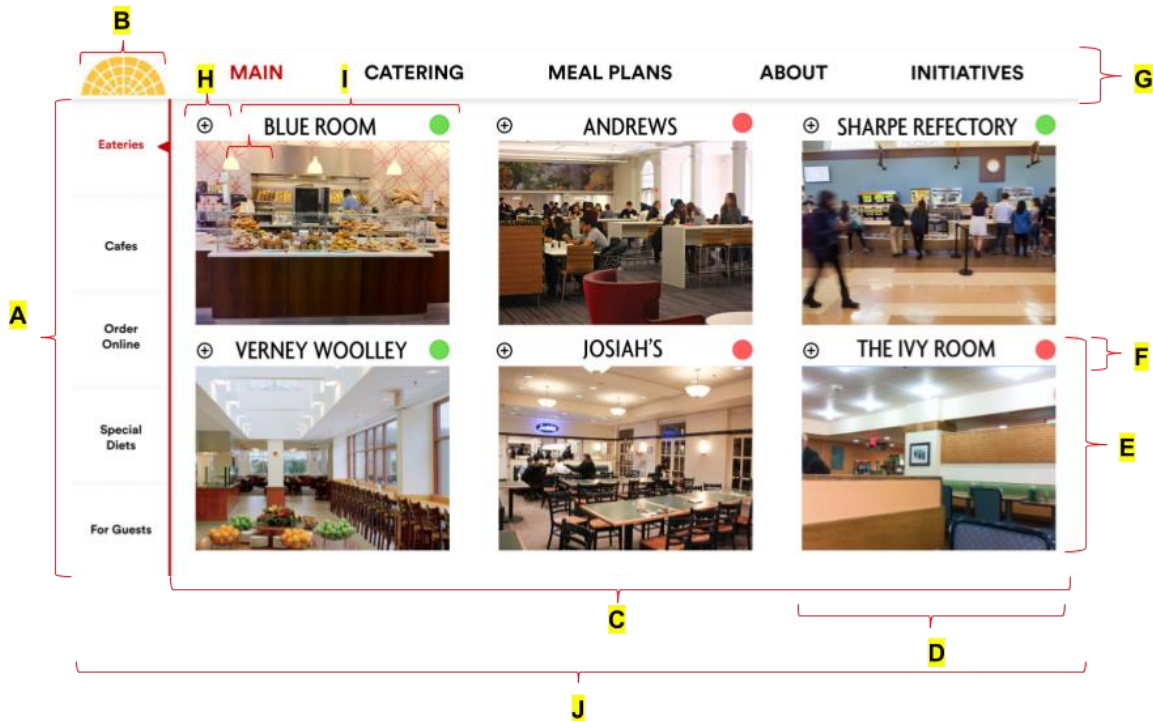


Figure 6. The Annotated Mockup of The Home Page.

A. The sidebar navigation feature:

- a. I phone: The sidebar will move to the top of the screen on resolutions similar to that of an iPhone. If the sidebar stayed on the side, it would be difficult to click, because it would be on the other end of the phone screen from your hand. It makes more intuitive sense to the user if it was on the top, because you can swipe left or right to move between sections.
- b. Tablet: The size of the navigation sidebar will shrink but will still maintain its relative size to the menu bar.
- c. 4K Screen: Works as shown: the interface was originally designed for a 4K screen.
- d. Standard Laptop: The size will also shrink but still maintain its relative size to the menu bar.

B. The Brown Dining Service Icon:

- a. I phone: The icon will shrink and move to the left side of the top of the screen and will be surrounded by whitespace.
- b. Tablet: The icon will shrink and move to the center of the top of the screen. It will be surrounded by whitespace.
- c. 4K Screen: Works as shown: the interface was originally designed for a 4K screen.
- d. Standard Laptop: The size of the icon will shrink but will maintain its size relative to the width of the menu bar (G)

C. The Canvas:

- a. I phone: Instead of the diners being arranged into columns and rows, they will be stacked right on top of each other in 1 column. The images will disappear, and we'll be left with rows with only the names, status, and menu-expansion icon.
  - b. Tablet: The canvas will be divided into 2 columns and 3 rows, where each cell contains the contents in DxE
  - c. 4K Screen: Works as shown: the interface was originally designed for a 4K screen.
  - d. Standard Laptop: The canvas will shrink and the contents of each DxE will also shrink. The whitespace between them DxE area will be reduced by half.
- D. Each Eatery Image:
  - a. I phone: This will disappear on the screen.
  - b. Tablet: The image will shrink relative to the proportions of the canvas.
  - c. 4K Screen: Works as shown: the interface was originally designed for a 4K screen.
  - d. Standard Laptop: The images will shrink relative to the canvas size.
- E. Acceptable Area to Link to the Menu (Image + Name + Open Status + More Button)
  - a. I phone: Name + Open Status + More Button
  - b. Tablet: Image + Name + Open Status + More Button
  - c. 4K Screen: Image + Name + Open Status + More Button
  - d. Standard Laptop: Image + Name + Open Status + More Button
- F. The Eatery Name + More Button + Open Status:
  - a. I phone: Shrink and fill up each row of the canvas.
  - b. Tablet: Shrink and fill up each row above the image and their size relative to the image will be the same.
  - c. 4K Screen: Works as shown: the interface was originally designed for a 4K screen.
  - d. Standard Laptop: Shrink and fill up each row above the image and their size relative to the image will be the same.
- G. The Menu:
  - a. I phone: Can be accessed via the hamburger icon. The hamburger icon will transform the content in part JxA into a left aligned list of the menu options that when clicked will push the items below it down to create space to put the sub-pages. JxA will be divided into 7 rows containing the titles of the pages and a red line under the current page you are on.
  - b. Tablet: Will shrink and be below the row with the dining service icon.
  - c. 4K Screen: Ours is 4K.
  - d. Standard Laptop: Shrink and the space between the titles will be reduced.
- H. /I. The More Button + Name + Status:
  - a. I phone: It will expand to fit into the size of one of the seven rows in the canvas area.
  - b. Tablet: It will expand relative to the canvas proportions.
  - c. 4K Screen: Already in 4K.

- d. Standard Laptop: It will expand relative to the canvas proportions.

We also made wireframes of these changes that would happen on the iPhone screen and iPad screen, shown in Figure 7 and 8 respectively.

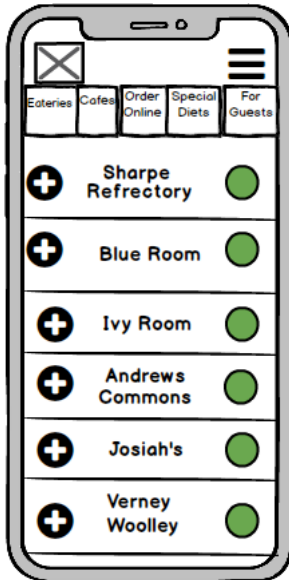


Figure 7. iPhone Screen Design.

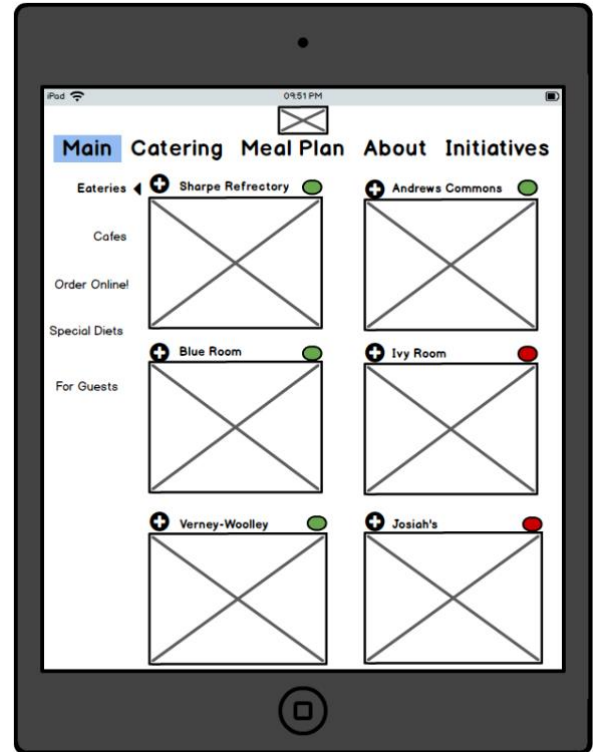


Figure 8. iPad Screen Design.

### Responsive Website:

With a clear picture on how we wanted to redesign the Brown Dining Services Website, we actually made a responsive website of our new and improved Home Page, which can be accessed through our attached files!