



Heuristic Evaluation and Cognitive Walkthrough

Grubhub is a website that allows users to order food from nearby restaurants for either pickup or delivery.

Introduction: Grubhub was founded in Chicago in 2004 by Matt Maloney and Mike Evans who were looking for an alternative to paper menus. Their business plan won an award from the University of Chicago and after a few years started to gain funding. In 2013 Grubhub merged with Seamless, a similar web service.

In 2013, the company sent more than \$1 billion in gross food sales to local takeout restaurants, processing roughly 174,000 orders on a daily basis. GrubHub Inc. has served more than 4.19 million unique diners in the last 12 months.

Assumptions

- The user will be accessing Grubhub on a desktop or laptop, not a phone or tablet.
- The user will be connected to the internet
- The user is aware of the basic premise of the site, specifically, that it is used to order food

Heuristic Evaluation

In an effective modern website, there are established heuristics which reflect elements of good usability. We analyzed the site as a group to see what sort of elements made Grubhub as successful as it is. We found that the site reflected several good usability heuristics, making it an overall good experience on the user's end of things. We went through the process of "ordering" (or getting to the point of the process where we were about to order) to effectively analyze the elements of Grubhub. Some of the heuristics Grubhub took advantage of (and could use improvement) were:

- The site creates a breadcrumb path to show the user where they are in the process
- The site gives instant feedback for a lot of actions, such as searching and selecting menus (Giving the website an effective *visibility of system status*)
- We like the fact that if a user's address is not recognized, they are given a world map with various markers to point out if one of the estimated addresses is correct. (We thought this effectively matched utilities in the real world, such as roadmaps)
- Easily locatable "Back to restaurants" button to navigate back to search results (This gave users an easily locatable escape hatch to return to the homepage, or previous page)
- Uses recognizable terminology, as well as recognizable features (popular sort, cheapest sort, etc.)
- Unclear as to what connotes a "trending" item? (Uses some familiar terminology, but does not explain such terms if one is unfamiliar)
- System seems to walk users through; they start on the homepage, select a restaurant, and go through the ordering process with ease (As someone who is unfamiliar with ordering food online, Kyle found this process to be visually appropriate, as the steps were easy to locate and descriptive)
- The site does not tell you if you have entered a valid address until after you try to make a restaurant search. Same when you are entering payment information. (This is not good *error prevention* and could be worked on)

We also thought the site was nicely designed as a whole and buttons were easily locatable, reflecting the heuristic of having an efficient aesthetic and minimalist design. We did not, however, like that most of the site's information was crammed on the same page (the home page).

We found that users were informed of their errors if they entered in an improper address, and then were given the proper formatting. We thought it would be better if the formatting were given before the error itself was made for better error prevention. Finally, for seeking help, users can click on the easy-to-spot help button on the top of the screen layout. We thought this was a convenient spot to put this button.

Cognitive Walkthrough

We all did different scenarios for our cognitive walkthrough in order to get a feel for the different functions of the website. All of the walkthroughs follow the same general concept of finding a restaurant and ordering food from it. The following is a combined version of our group's walkthroughs:

Steps "the happy path"	<i>Will the user realistically be trying to do this action?</i>	<i>Is the control for the action visible?</i>	<i>Is there a strong link between the control and the action?</i>	<i>Is feedback appropriate?</i>	Comments/issues:
Access Grubhub	Yes, it is the first step in this process to acquire food from Grubhub	Yes, user simply types the site name into their preferred search engine	Yes	Yes, if the site loads	
User inputs their address	Yes, it is among the first step of ordering food online	Yes, it is the first thing the user sees upon entering the site	Yes, a clearly labeled input box informs the user that this is the address box	Yes, the box highlights when the user selects it, and an indication to type is shown	
User enters in restaurant filter	Yes, if there is certain criteria to what they want to eat	Yes, it is right next to the address box	Yes, same as the address box	Yes, same as the address box	
Enter search filters depending on what the user desires	Yes, if the user desires cheap food, or the closest restaurant	Yes, it is on the top of the page	Yes	Yes, page updates instantly following a loading icon	
User chooses restaurant	Yes	Yes, there is a list of restaurants the user has access to with an arrow icon, to indicate they are selectable	Yes	Yes, restaurant opens up within the same page and shows user the menu	
User adds desired menu items along with preferred criteria	Yes	Yes, menu items highlight when hovered over	Yes	Yes, modal panel opens upon selecting food items, and then updates the total when user confirms their preferred food/beverage information	

User selects that they want delivery (Final step)	Yes, if the user recognizes that the delivery button turning green means they are able to purchase delivery at that time	Yes, a large green button towards the top of the screen	Yes, the button is labeled	Yes, button highlights and directs user to the account creation page upon clicking on it	
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Summary of Positive Findings

When doing the cognitive walkthrough, we each had similar positive findings for GrubHub. We all found it easy to find the control for an action because they were placed in logical locations on the website. For example, the address bar used to search nearby restaurants was large and right in the center of view on the home page. We also found the link between the control and action pretty well visible on most of the steps. Most of the time it was simply a button that said what we need in plain English such as the delivery button said "I want delivery". Lastly, we found the feedback for each step to be appropriate. Pages would load quickly and we would be taken to the next logical step in the order process. If we searched for specific items we would only get restaurants that serve those items. Overall there wasn't too many issues in our cognitive walkthroughs.

We also came to a lot of the same conclusions in our heuristic evaluations. One common finding was the website used very plain English. For example, the button for choosing delivery says "I want delivery" and the pickup button says "I'll pick it up". We also found it easy to navigate the website and modify our orders. The website was consistent on its wording. There are easy to understand error messages describing what went wrong. Users can also create an account that remembers their address and previous orders to make future orders faster and easier. Overall the site has a nice design without too many problems.

Summary of Usability Problems and Recommendations for Improvement:

Whilst evaluating Grubhub through our cognitive walkthrough scenario and heuristic evaluation, we found a handful of problems. As a whole, Grubhub seems to have worked out any major issues with the site, as most of the usability problems we located were minor at most. One of the first and foremost issues we identified was a lack of a same-page error message when an address is improperly entered. It instead redirects the user to a new page, where they are given several different suggested addresses. We think this could have been handled in an easier format, for instance by simply telling the user if the address isn't on the database, or has been entered in the wrong way. Which leads to the next usability issue, that there is no format for the address on the homepage. We entered in a Chicago apartment address and we would continuously be redirected to different addresses.

Another issue we identified was the fact that the homepage was loaded with a plethora of information that could have been easily categorized into separate pages. Instead of clicking on a navigation toolbar to enter a new page, all of Grubhub's information, browse widgets, and social media plugs are all on one enormous page. It has a lot of helpful information, but it could be more user-friendly by adding this information into separate pages. We also found that the FAQ page and help page were separate, and we felt as a group that these could be condensed into a single page so a user is not confused.

One final issue that we found was that users were constantly bombarded with various popups on the website, advertising the site itself. While it can be an effective tactic to get users to sign up to newsletters and follow social media, it looks unprofessional and turn users off from the website. If the user is on the website, they may or may not want to see adverts for the website.