

Usability Testing - Heuristic Evaluation

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Introduction

For our heuristic evaluation, we inspected "[The General Bookstore](#)" website which provides contractor codes, amendments, and reference books for contractors in Georgia. Within the report, we will discuss how our persona would play a role in how a user would view the site by explaining issues we found and then providing solutions that would better benefit users.

Methods

The methods we used to evaluate the website consisted of using the Gerhardt-Powal (1996) Heuristic criteria. We also developed our own analyses and then combined them. By using our persona, Brooke Turner, keeping her goals in mind, also steered the process. A Heuristic Evaluation is a computer program usability testing analysis technique that aids in examining and identifying usability issues in user interface design. The Gerhardt-Powal (1996) Heuristics is a collection of cognitive engineering principles that improve human-computer interaction. Gerhardt-Powal's (1996) Heuristics principles are:

1. **Visibility of system status** - Keep users informed about what is happening. Give appropriate feedback within a reasonable time.
2. **Match between system and the real world** - Use the end user's words, phrases, and concepts, not jargon. Follow real-world conventions so that info appears in a logical, "natural" order.
3. **User control and freedom** - Give users an "emergency exit" to leave an unwanted action.
4. **Consistency and standards** - Follow platform and industry conventions.
5. **Error prevention** - Eliminate conditions that invite errors, or present users with an "are you sure?" gate.
6. **Recognition rather than recall** - Don't force the user to remember what things are/do. Make all elements, actions, and options visible. Field labels, menu items, and so on should be visible or easily findable.
7. **Flexibility and efficiency of use** - Allow for both novice users (full action paths) and expert users (shortcuts that speed up the interaction).
8. **Aesthetic and minimalist design** - Include only the necessary information/options.
9. **Help users recognize, diagnose, and recover from errors** - State error messages in plain language. Specify the problem. Suggest a helpful solution.
10. **Help and documentation** - If possible, make a design that doesn't require outside help. But still provide documentation that helps users understand how to complete their tasks.

Results

Our results were based on first constructing our persona, and then doing our own heuristic evaluation of individual analysis of the website, and then, everyone brings their analyses together.

Persona:



BROOKE TURNER

Environment: Brooke is a young student studying HVAC at GA Tech in order to land a position at her uncle's company. She wants to learn as quickly as possible so that she can start making income to support herself. She works as an assistant to her uncle in the meantime as a means of getting work experience but knows that she cannot get full income until she is licensed.

Goals:

- Gain access to training resources on her uncle's website
- Get the best study material that will allow her to ace her license exams
- Find courses that are easy to follow

Expertise:

- Isn't sure about which study material is the most necessary for her exams
- Doesn't want to spend too much time searching for information

Quotes:

- "In order to excel, you must propel".

Gender: Female

Age: 25

Ethnicity: Black

Languages: English

Location: Atlanta, GA

Marital Status: Single

Children: 0

Education: Student

Employment: HVAC assistant

Which, led to the group discovering errors such as:

Major issues:

- Connection should be secure considering that sensitive information will be used on the site (e.g. payment).
- Some product images are too small and scattered also with no descriptions.
- Clunky navigation prevents the user from easily using the site.
- Physical address and hours aren't shown on the site.
- Should be more payment options besides PayPal.
- No info on shipping, refunds, and return policies.
- Emergency exits and error preventions should be added.
- Some links are unhelpful as they have not been updated.

Minor issues:

- CTA icons should be more prominent (such as the shopping cart and home icons).
- No help support to call if a user needs assistance.
- Lack of reviews and review sections make the buying process difficult.

- Standard conventions for usability should be implemented for ease.

Cosmetic errors:

- Random glitches occur within the UI and navigation bar.
- Inconsistent colors, titles, and unnecessary designs for the web pages make the site appear unprofessional.
- Inconsistent wording and formatting appears unprofessional as the errors confuse users who are looking for accurate information on the products.

With Brooke's goal of saving time and good study material, the site does a poor job as the navigation is impractical, considering that the CTA buttons are hard to see. Additionally, there are no reviews and review sections for the displayed products. These issues practically leave Brooke confused throughout the experience. Reviews are necessary so she can know if the material is updated, related to her course, and worth the time and effort to buy. Pricing, return policies, error prevention, and so on should be implemented as they are necessities for any site and will further help customers like Brooke in the search process.

Additionally, as she wants decent material to teach her how to install and maintain Trane-brand AC units, the site needs to better provide descriptions on the books. She can look it up on her own, but the user, in this case, shouldn't have to do more work than they need to. Also, the conventions should remain natural so she can easily browse the site. These simple improvements would allow students similar to Brooke to find study materials for their exams quickly.

Along with the major and minor errors, cosmetic errors are present and won't necessarily prevent her from completing her goals. However, these minor errors make the site appear to be untrustworthy as well as unprofessional. Therefore, fixing these errors would allow students like Brooke to look for reliable course materials without fearing whether the store is legitimate.

Brooke's slight nudge to her uncle to improve the major, minor, and cosmetic errors would drastically boost his business. Customers would want to see pricing, accurate links, product descriptions, and so on before purchasing. Improving minor errors such as inconsistent text, formatting, and glitches makes a considerable difference in displaying the site's professionalism.

Discussion

In summary, utilizing Gerhardt-Powal's heuristic evaluation standards allowed us to effectively form our analyses on what major, minor, and cosmetic errors are present in the site. Understanding these errors and what solutions could be provided will better assist Brooke's needs and others with similar goals and improve the site for her uncle.

References

1. Digital, S. (2021, December 29). A complete guide to heuristic evaluation. Medium. Retrieved March 20, 2023, from https://medium.com/@successive_digital/a-complete-guide-to-heuristic-evaluation-bfa0b7027405