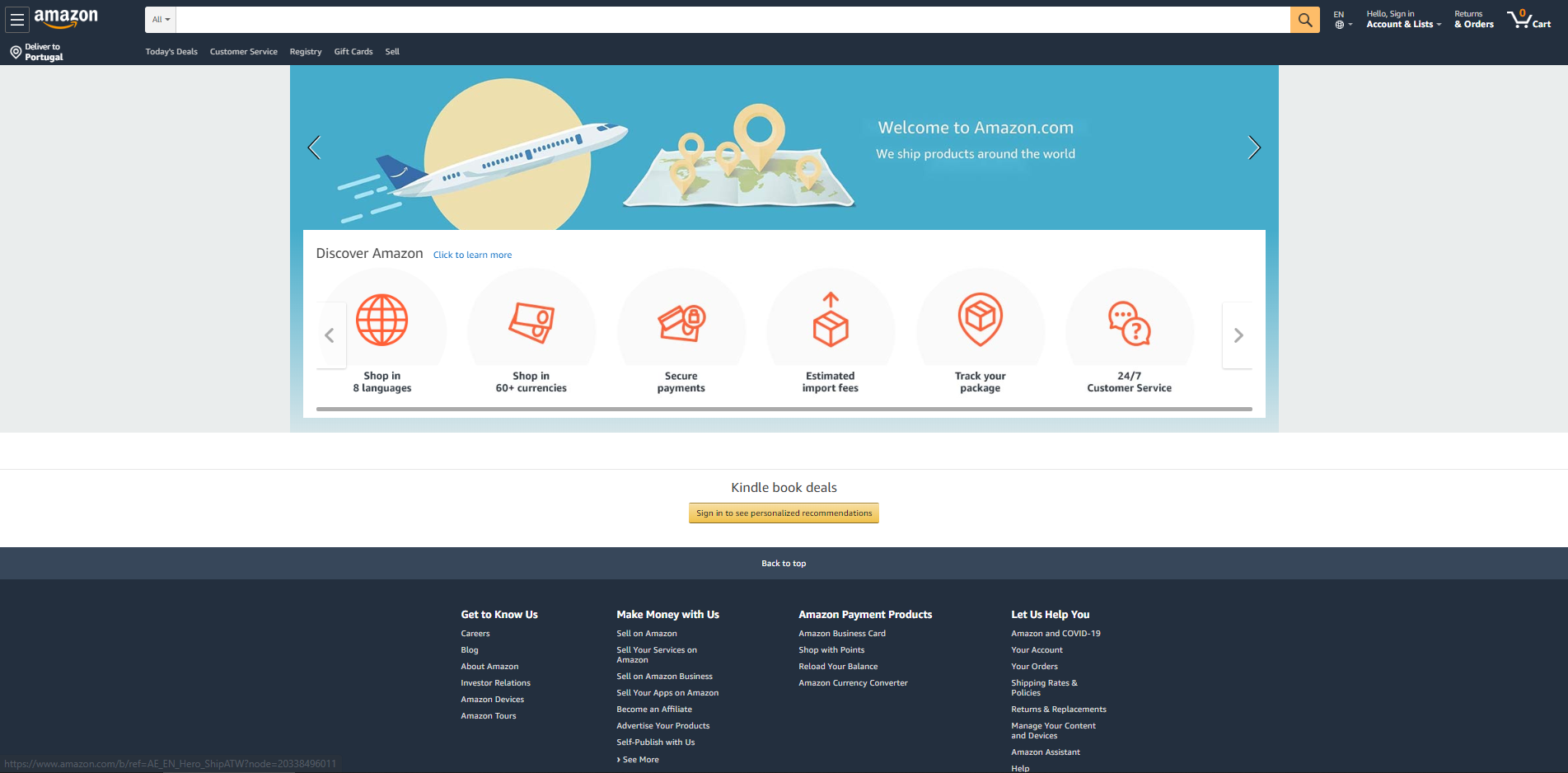
Human Computer Interaction

Practical Assignment 3: Heuristic Evaluation of a WebSite

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We are going to make a heuristic evaluation of the customer service platform. A heuristic evaluation is a usability inspection method for computer software that helps to identify usability problems in the user interface design. Our choice is <https://www.amazon.com/>. Amazon is the world's largest online marketplace.



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| **No.** HE-01 | **Problem** |
| **Name:** Feedback when a button is clicked | |
| **Evidence:**  *Heuristic:* Visibility of system status  *Interface aspect:* Every time when the user is performing some action, there should be feedback from the system that something is happening. The user is expecting that something will happen following his actions, so when there is a time needed for the system to respond, the information should be provided. | |
| **Explanation:**  Informing the user about the status of the system is important. Especially when it comes to the buttons. When there is a lack of information, the user may think that the button is inactive even if the system is processing the request. For example, when you are trying to sign into the Amazon website, they don’t inform you that something is happening which can result in repeatedly pressing the sing in button. | |
| **Severity:**  Rating: 2 = Minor usability problem: fixing this should be given low priority  *Frequency*: Common for every user. Users with a slow internet connection are going to suffer from this issue more because the loading time will be longer, so they will wait for the feedback from the server longer.  *Impact*: Depending on the user, the problem can be easily overcome or not. More patient users will overcome the problem easily, but less patient ones can have more troubles. For example, repeatedly clicking the button can cause unwanted actions.  *Persistence*: Once users discover the issue, they can adjust their actions so no unwanted results are going to appear.  *Weights:*  A very common problem and probably every user will face this problem. On the other hand, it is easy to overcome, so it is not a serious issue. Also, the problem should be easily solved. | |
| **Possible solution:**  The simplest solution is to add a loader when the action is performed. Also, the button causing the action should be disabled during loading or performing the action. This should prevent users from clicking too many times and provide the necessary information about the status of the website. | |
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| **No.** HE-02 | **Good Aspect** |
| **Name:** Intuitive search bar | |
| **Evidence:**  *Heuristic:* Consistency and standard  *Interface aspect:* Users are used to some standards. When they are entering a new website they expect it to behave in a specific way. Search action on the Amazon website is positioned well. Clearly visible at first glance. The search bar is very important at customer services such as Amazon because users want to look for a specific thing. | |
| **Explanation:**  Following specific standards saves users time and can improve the website’s intuitiveness. When a user needs to use a search function, it should be put at the top of the website, it can be on the center, right or left side. Sometimes unintuitive search function can cause the user to stop using the website because the desired thing is unreachable. | |
| **Benefit:**  Rating: NA  *Frequency*: Common for users. Most of the users, visiting Amazon, are looking for a specific product, so they use a search bar.  *Impact*: Saves time looking for a product  *Persistence*: Users are going to use the search bar if it works correctly. | |
| **Possible solution:**  Even if the search function is fine and is working correctly it can still be improved. I think adding suggestions or trending searches when the user clicks the bar is a good idea. It can suggest the user some product and maybe convince him to buy some. | |
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| **No.** HE-03 | **Problem** |
| **Name:**  Unvalidated user input | |
| **Evidence:**  *Heuristic:* Error prevention  *Interface aspect:* Some of the user input should be validated. Data like username or email can be easily checked if it is provided in the right format. Amazon only provides feedback when the data is already entered and the user wants to go to another action. | |
| **Explanation:**  Preventing errors at the early stage is important not only for the user but also for the website. Everyone can make some errors when typing, miss some characters, or put some additional. Informing the user about an error exactly when it is made is something websites should do to save the user’s time. Also, we can prevent some of the unwanted requests with the error, so the server doesn’t need to process it. | |
| **Severity:**  Rating: 2 = Minor usability problem: fixing this should be given low priority  *Frequency*: Possible for every user. Everyone can make some mistakes.  *Impact*: Not preventing the errors can cause loss of the user’s time.  *Persistence*: Every user sometimes can make a mistake, so the issue can’t be neglected.  *Weights:* Mistakes are common and prevention should be something important. Developers of the website should always think about the errors that users could make, and how to prevent them or tell them that they need to correct something. On the other hand, the problem is not very crucial, but the earlier user is informed about his error, the better. | |
| **Possible solution:**  Validating every user input is important. Especially such data as email addresses or usernames. A website needs to check if the input data is in the right format. | |
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| **No.** HE-04 | **Good Aspect** |
| **Name:** Top navigation bar is always visible | |
| **Evidence:**  *Heuristic:* User control and freedom  *Interface aspect:* When the user starts to navigate between the pages of the website it’s good to return to the homepage or navigate to some other category with one click. Always visible navigation bar allows users to navigate easily even from different pages of the website. | |
| **Explanation:**  After some time of using the website, the user is likely to be deep in the website structure. I think it is a good idea to let the user switch between categories, search for a new product or go back to the homepage every time the user wants to. | |
| **Benefit:**  Rating: NA  *Frequency*: Users that spend much time on the website are likely to use this benefit many times.  *Impact*: Improves navigation and clearly marks "emergency exit" to leave the unwanted state.  *Persistence*: Good navigation is an important feature, especially on services like Amazon. | |
| **Possible solution:**  I think, when the top bar is always visible, it’s design should be minimalistic. Too many options on the always visible bar can distract users from the content. Unnecessary things should be removed. Only the search bar, category menu, and the home button should be visible at every state. | |
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| **No.** HE-05 | **Good Aspect** |
| **Name:** Currency can be changed | |
| **Evidence:**  *Heuristic:* Match between system and the real world  *Interface aspect:* The Amazon website is available in many countries. Some of them use a different currency. Possibility to change it to the native one, helps the customer see prices more clearly. | |
| **Explanation:**  When we have international service, we should take into consideration the differences between the nations. One of them is the currency used in the country. Possibility to change the currency to the one used by the user makes it easier for the user to buy the product. The user doesn’t have to check the exchange rates on his own. | |
| **Benefit:**  Rating: NA  *Frequency*: Every user from the country with another currency will benefit from this aspect.  *Impact*: It makes the customer feel like “home”.  *Persistence*: Once selected, the user will use the feature for the whole time. | |
| **Possible solution:**  Even if the number of available currencies is good, Amazon can add more. For me, the Polish person, it is still difficult to buy something because my currency (PLN) is not available. | |
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| **No.** HE-06 | **Problem** |
| **Name:** View of the cart as a separate page, rather overlay window | |
| **Evidence:**  *Heuristic:* Recognition rather than recall  *Interface aspect:* In customer service websites such as amazon.com people should focus on the content, not on the form. The website design should be a background and real focus should be paid to the kind of purchases we want to make. When one makes a big shoppings he wants to know for the full process what actually he is ordering. Amazon has a ‘Cart’ feature on their website so that no matter where one is on the website, he can access all the products put there, but each time one has to leave the current page to go to the full cart view. | |
| **Explanation:**  The greatest thing about this aspect is that the user does not have to remember what they put in the cart but he can check it up any time.  In my opinion, the heuristic is violated here. Although during shopping one sees the icon of the cart with the number of items in it, if he wants to see all the products, then accessing a different subpage is necessary. Such a view should be available in a new window that appears (overlays) on the same page without the need of reloading it.  An experienced user may use tabs in the browser and still use the website comfortably, but a novice one may find it unintuitive and frustrating. | |
| **Severity:**  Rating: 2 = Minor usability problem: fixing this should be given low priority  *Frequency*: Common for every user during the whole process of using the website.  *Impact*: Quite easy to overcome especially for experienced users. Might be frustrating for novice ones.  *Persistence*: Best case scenario is that the user can get used to the inconvenience, but he will need to make previously mentioned workaround each time he uses the website.  *Weights:* Problem appears to every user, but it is not a dealbreaker. Using that website, although frustrating, is absolutely possible. Adding a dynamic view to the cart should be done but this task should be given a low priority. | |
| **Possible solution:**  Adding a dynamic view of the cart will totally eliminate the problem. User could see all the products no matter where they are during the shopping. From this view there would still be possibility to go to the full view of the cart in a separate page.  Such a solution does not introduce any trade-offs or downsites despite the costs of the work of developers (low costs though, due to simplicity of the feature) | |
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| **No.** HE-07 | **Good Aspect** |
| **Name:** Remembering user’s previously provided data such as shipping address of billing method | |
| **Evidence:**  *Heuristic:* Flexibility and efficiency of use  *Interface aspect:* Basically every program, webpage or application has different kinds of users in terms of experience. This aspect focuses on making the interaction with the interface quicker as well as more convenient mostly for experienced users. Frequently repeated tasks, such as providing shipping data, payment methods or most browsed categories should be either automated or configurable by the user. Good example is the introduction by amazon.com of the account system saving all those data for the certain user. | |
| **Explanation:**  It is vital to propose ways to make using our website faster, even if that requires a bit of learning from the site of the user. More experienced users can really efficiently use those features.  Using the feature of remembering previously mentioned data is quite simple. It requires the user to edit particular fields in the account setting section and use them during purchases. This little feature saves tons of time during everyday shoppings. Even novice users should be able to configure those data fairly easily and benefit from it. | |
| **Severity:**  Rating: NA  *Frequency*: Once configured this feature could be used by both novice and experienced users.  *Impact*: Saves a lot of time during following purchases.  *Persistence*: Once configured it should be saved forever. | |
| **Possible solution:**  The only trade-off of such a solution might be security. Users that saved their billing method might become a victim of losing money. Someone can steal logging data from them, change delivery addresses and buy stuff for the user's money. It is unlikely to happen though, mostly because of a gaining huge popularity feature called 2-step verification and other security methods implemented by the banks themselves. | |
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| **No.** HE-08 | **Problem** |
| **Name:** Chaotic and hard to read design | |
| **Evidence:**  *Heuristic:* Aesthetic and minimalist design  *Interface aspect:* Amazon is the biggest online store in the world, but surprisingly the design of the store is really chaotic and hard to read. Categories are overwhelming for the user giving him too much of them and there is a lack of filters while searching for an item. In addition the whole layout is full of text making unfamiliar and new users feel lost in the amount of content. | |
| **Explanation:**  Minimalistic design and aesthetic are unquestionably two most important aspects in designing a website. They are responsible for both first impression and further feeling of using the website. Amazon.com looks overwhelming for the user. It packs a lot of text on the screen and doesn’t use images/icons or colors to help distinguish them.  Non-familiar users can quickly get lost in that website and ultimately change it to a different one. Even experienced users may have troubles using this website efficiently. | |
| **Severity:**  Rating: 3 = Major usability problem: important to fix, so should be given high priority  *Frequency*: Common for every user during the whole process of using the website.  *Impact*: Quite hard to overcome especially for new users. Makes the experience from using a website unpleasant and non efficient.  *Persistence*: Takes a lot of time to get used to.  *Weights:* This problem is a very serious one. It is present for every user, no matter level of experience, has a very big impact of efficiency while using a website and getting used to that design takes quite some time. Major interface updates should be implemented and that is what developers should focus on for the next few months. Fortunately, the issue is not that serious and does not make the website unusable. | |
| **Possible solution:**  The only possible solution is redesigning the whole interface of the store. Introducing better categories division, color scheme and icons into the website.  Such a solution comes with a huge trade-off, being costs in time and resources. Redesigning such a huge website takes months, if not years and consumes a lot of money and man-power. | |
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| **No.** HE-09 | **Good Aspect** |
| **Name:** Keeping user informed when something went wrong | |
| **Evidence:**  *Heuristic:* Help users recognize, diagnose, and recover from errors  *Interface aspect:* If there is one thing that amazon.com does well, it is keeping users informed what happens. Throughout the whole process of browsing the store or making a purchase we make interactions with the website. Sometimes, we can make mistakes (f.e. not filling the required form field) or the website itself (f.e. redirecting us to nonexisting subpage). In all those situations amazon handles it perfectly well following all 3 rules of this aspect: informa the user when error occurs, tell what went wrong and propose a solution. | |
| **Explanation:**  No program nor user is perfect, everyone makes mistakes. That’s why it is vital to minimize potential damage from such an error. Displaying error message immediately after occurrence of this error, telling what is wrong in easy to understand language and proposing a solution helps greatly to reduce bad experience coming form using a website.  These features are good for both novice and experienced users. For example, providing the error message with an error code, description and solution may help the user resolve the problem on their own or at least reduce frustration and make him know how to ask for help. | |
| **Severity:**  Rating: NA  Frequency: Depandandly of the user’s experience and familiarity with computer technologies, errors occurrence frequency may vary from nonexistand to very often.  Impact: Usually errors stop the whole process of interaction with a website, so it is very important to inform users how to cope with them.  Persistence: Some errors fix themselves, some need fixing on the site of the user, others are critical. | |
| **Possible solution:**  The only trade-off I can think of is the user being overwhelmed with the amount of information. This combined with text-reach design of amazon.com website can make users even more confused. | |
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| **No.** HE-10 | **Good Aspect** |
| **Name:** Using overlay and pop-up windows to guide user on website | |
| **Evidence:**  *Heuristic:* Help and documentation  *Interface aspect:* Amazon.com uses overlay and pop-up windows to help guide users on possible interaction or new features on the website. | |
| **Explanation:**  No one likes to read documentation, those huge paragraphs of text should not be the way to learn how to interact with the website. Using adequate pop-up messages and informing users on possibilities in real time makes experience fluid and smooth. Amazon.com on their homepage greats us with bunch of quality assurance etc.: but also suggests to log in or sing up. Making purchases requires an account in their service so it is wise to inform users about it right ahead. On the other hand, when a user visits amazon.com and he is already logged in, other kinds of pop-ups appear, such as new possibilities of delivery or changes in licence. | |
| **Severity:**  Rating: NA  Frequency: It appears very often during the usage of the website no matter what user is doing.  Impact: It helps greatly to guide users on the website. They feel less lost and more comfortable.  Persistence: If a user saw a pop-up window once it is unlikely for him to see it again, because the message was delivered and there is no need to keep that message for him forever. | |
| **Possible solution:**  The only trade-off I can think of is the user being overwhelmed with the amount of information or feel irritated. Usually an experienced user knows what he wants to do and seeing these messages may interrupt that process making him frustrated. | |
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