

# Human computer interaction report example

[Technology](#), [Internet](#)



## **Introduction: An overview of usability concepts, design guidelines, principles and theories:**

Designing an interactive system requires thorough task and user analyses aimed at collecting enough information to come up with a sound functional design. Some of the issues to consider when designing an all-round interactive system are availability, reliability, integrity, portability, integration, standardization, security, and the administrative tasks of budgeting, maintenance and scheduling (Shneiderman & Plaisant 2010). The design process is quite iterative and as design concepts and ideas are suggested, they need to be assessed so as to provide user friendliness, low error rates, efficiency in task performance, user satisfaction, and ease of retention. Designs that target the needs of various user groups such as children, senior adults, and disabled persons improve the overall design quality for all users. During the refinement and implementation of a design, it needs to be properly evaluated through expert reviews, pilot studies, user observations, usability tests, and acceptance tests. These evaluation procedures when well conducted accelerate overall improvement.

There are various sets of guidelines and principles developed to help designers develop their project practices, standards, and accommodate an expansive and diverse user community. While these principles, guidelines and theories continuously grow, user interface design still remains a highly creative and complex process. In order to succeed, designers have to thoroughly analyze tasks, carefully identify and specify user communities. For example, for advanced users with established action sequences, predictive models that are time efficient can be used to effectively reduce

the time required for each step. On the other hand, designs targeted for novice users may focus more on task objects and actions leading to the development of simple interface actions and objects such as drop down menus and forms respectively. However, developing an interactive system considering the various Human Computer Interface design principles, theories and guidelines, requires iterative testing and refinement (Shneiderman & Plaisant 2010).

### **The Morning Bulletin website: Overview and Description:**

The report provides a critical evaluation of The Morning Bulletin website which can be found at <http://www.themorningbulletin.com.au/>. The report also documents my personal observations and recommendations for the nominated website as well as user reviews from two of my friends. The observations and recommendations made are mainly based on the usability and interactive aspects of the website.

The Morning Bulletin is basically a news website based in Rockhampton, in the United Kingdom. The website gives users access to the latest local and national news, events, special reports, classifieds, notices, financial services information, property guide, education news, sports highlights, job advertisements and blogs. Other than the communication services stated above, the site also has entertainment news, image and video galleries. In terms of design, on the topmost left corner on the site's homepage are links to the registration and login forms for new and existing users respectively and to the right of these is a search bar that allows users to search for information on the website as shown in the figure 1.0 below.

Fig 1.0 Screenshot showing register and login links on the left and search

bar to the right

Below these, are various tabs showing the main categories such as News, Local Life, Thing to do and Classifieds. The site is highly interactive and dynamic such that by simple mouse hovering over the various main category tabs, several other tabs appear below indicating sub-categories. Some of the sub-categories under the News section include Local, Just In, National, Sport, Lifestyle and Business among others. Under the Find Your Local main section are intuitive search buttons that allow users to search for news items by location and category, and also add your business. Further below the sub-category buttons are links on a banner that allow users to share their stories, photos, events and notices. Below these links, is a dynamic bulletin board that displays the main news highlights, and other information such as the date, horoscope and weather news. The buttons for the categories and sub-categories as well as the bulletin board are shown in the figure 1. 1 below.

Fig 1. 1 Figure showing the category and sub-category buttons, and the bulletin board described above.

After the bulletin board, the news and other information are displayed in more detail depending on the category clicked at the top banner. For example, on clicking the News category at the top, the various types of news are displayed categorically, and in greater more detail. At this point, the user can choose a particular news item/story or classified advert by clicking the various links leading to the news items. To the left of these detailed news are well placed advertisement banners. While normally these advertisement banners interfere with users and block useful content, the design in this case ensures the adverts are in their own place and do not interfere with the

users. The figure 1. 2 shows an example of the detailed news items and the advertisements beside them as stated.

Fig 1. 2 Detailed news items when NEWS category is selected, and to the right, advertisement and promotion banner.

## **Design aspects of the Morning Bulletin website: Pros and Cons:**

The Morning Bulletin website is well designed with news and other information well organized into categories and subcategories. First, the search bar, registration and login links are well placed thus easily visible and accessible to users. There are four basic colors dominating the website i. e. black, grey, green and white, and the fonts chosen are easily visible and consistent. The font sizes vary according to the header levels, with titles and headings having the largest fonts, and hierarchically decreasing in size till the news content (body) has the smallest font size but still easily legible. These design considerations grasp the user's attention and at the same time make the website's view quite easy on the eyes (Shneiderman & Plaisant 2010).

While the site is quite dynamic with some of the content changing on mouse hover and clicks, the movement is fluid and simple with no blinking content that causes irritation to the eyes. In terms of performance, the site is quite responsive even on a slow internet connection, and content is displayed in similar quality in most common browsers such as Google Chrome, Mozilla Firefox, Safari and Internet Explorer. I also had the chance to test the website on various monitor sizes and resolutions, and the display was the same with the content easily adjusting to the varying resolutions.

However, the website has a setback in terms of site navigation and users have to scroll a lot in order to read information on the bottom of the page. Another observable issue was in the font color. All users who reviewed this website under my request observed that the grey font on a green background was not legible without causing strain to the eyes. The figure 1.3 below shows a snapshot of the website that was not easy to read.

Fig 1.3 A screenshot showing grey font on a green background which was not legible without causing eye strain.

### **User reviews of the website:**

I had the chance to ask some of my friends what they thought about the news website and truth be said, their opinions were varied but their observations were quite important in relation to HCI design principles.

The first user was Jane Doe (not her real name), female, aged 22, and a fellow student. According to her website bore semblance to other sites she'd seen in terms of structure and organization of information but the fonts and background colors were dull. I quoted her saying, "the colors are visible and not irritating to the eyes. However, the combination of dull colors such as grey, black, green and white is not appealing. I would prefer it if the designer used brighter colors such as red, purple or blue especially in place of grey and green. I am okay with the black and white since those are universal colors but the addition of grey is too masculine."

The second user was also a friend, John Doe (not his real name) male, aged 70, and a retired writer. John is a senior member of society and he wears glasses. I picked him because he represents an older generation of users. He wears reading glasses due to his reducing vision caused by old age. He is

computer literate and can even type and access the internet easily but nevertheless, a novice user. According to him, “ the website has the right font size for all types of content but the coloring is all wrong. I cannot read the grey text on a white background because my eyes are straining even when using reading glasses. I also would prefer if I don’t have to scroll too much to get to the bottom of the page.”

### **Recommendations:**

According to the observations made by the various users (including myself), the Morning Bulletin website is well organized and has an interactive interface. However, in terms of the appearance, all users had a problem with the coloring of fonts and backgrounds. While for some users it was purely an issue of aesthetics and attracting user attention, to others it was an issue of discomfort like in the case of excessive scrolling during navigation, and the strain caused on the eyes by the illegible fonts.. The overall design and performance of the website was satisfactory and the only features of the website that need to be revisited and redesigned are the font colors and the amount of scrolling required to navigate to the bottom of the page.

I would recommend that the excess information at the bottom be transferred to new webpages, and links added to the home page to enable navigation to the new pages and access the news items instead of excessively scrolling downwards to read information. The font colors should also be adjusted so that the new design is attractive with the fonts bold enough to be read by people with poor eyesight.

## **Conclusion:**

Conclusively, the Morning Bulletin website features an intuitive and interactive design with proper organization of information, powerful search capabilities, security features that are above standard in securing user account information, and a simple interface without much clutter. If the recommendations stated above are implemented, then the site will have satisfied the basic design requirements, principles and guidelines. However, as technology advances and new design concepts emerge, more can still be done to cater for users with hearing and vision impairments. This might involve design concepts that aim at delivering a fully interactive multimedia experiences that incorporate audio-visual multimedia content especially since this is a news website.

## **Reference list:**

- SHNEIDERMAN, B., & PLAISANT, C. (2010). Designing the user interface: strategies for effective human-computer interaction. Upper Saddle River [etc.], Addison-Wesley.

Bibliography:

- BARRIER, T. (2002). Human computer interaction development and management. Hershey, PA, IRM Press. <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=66628>.

- BEAN, J. (2010). SOA and web services interface design principles, techniques, and standards. SOA and Web Services Interface Design. Amsterdam, Elsevier/Morgan Kaufmann.

- GALITZ, W. O. (2007). The Essential Guide to User Interface Design an Introduction to GUI Design Principles and Techniques. Hoboken, John Wiley & <https://assignbuster.com/human-computer-interaction-report-example/>



Sons. <http://public.eblib.com/EBLPublic/PublicView.do?ptiID=291460>.

- MANDEL, T. (2002). Elements of user interface design. New York, John Wiley.

- SHNEIDERMAN, B., & PLAISANT, C. (2010). Designing the user interface: strategies for effective human-computer interaction. Upper Saddle River [etc.], Addison-Wesley.