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An analyze of high school web interface designs in terms of graphic design

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Abstract

The primary task of education and training institutions is to provide children and young people with the necessary knowledge, skills and understanding to achieve their place in the community life and to help them to develop their personalities. So much so that, the expected thing from these institutions is to pioneer in terms of the opportunity to transmit graphic design and information accurately with web sites as well. However, in the web sites of many secondary schools some problems are being identified in terms of graphic design (use of wrong and ugly typography, impractical layout and redirection design, unrelated visual elements and color). In this research, the web interface designs made by some selected secondary schools will be examined in terms of content, site navigation and accessibility, page layout, typography and readability, visual elements and the use of color, and the framework for a successful design of a web interface will be determined with regards to graphic design.

1. Introduction

It can be said that interface design consists of software, visual design and content. To create a proper, good interface design, visual design and content must be simple, easily accessible, available and consistent, and the software must be functional. Visual design directs the content as well as the software. The software and the content take form according to visual design. The principal elements of visual design are logo, symbol, image, color and text. When doing the interface design, care should be taken of the navigation, the use of typography, color, and images on the site.

2. Interface design

Interface design for computer programs is quite a new area for designers. As for computer science, it is not a very important detail, usually seen as a "cosmetic exercise" (Bonsiepe, 1999).

Visualizing the software does not mean only doing an attractive design. It means to make the content - which is determined according to user requirements - functional, comfortably usable with the flow of accurate information, and of course visually appealing. Thus, it makes the concepts into a completed product (figure 1). Software becomes more accessible understandable interface. and with graphical
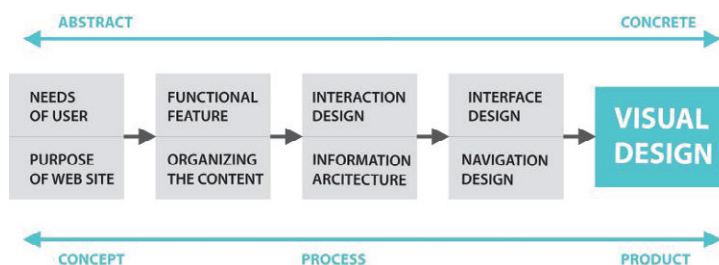
Figure 1. The process of creating visual design
(http://www.erg.be/multimedialab/pict/im_interfaces_garrett_big.gif / this image based on this link)

It is important for the graphic designer especially to work close to the programmer at the design stage in order to direct the software according to ergonomics and visual criteria and to know the limitations.

2.1. Content

As seen in figure 1, determination of the user requirements and the purpose of the site constitute the content. Accordingly, it should be well determined what must and what must not be on the web sites of secondary schools. It is clear that such web sites should not look like news sites. In addition, as shown in figure 2 (death and birth announcements on the page), there are irrelevant content on some of the secondary school web sites.

Figure 2. Death and born news at nevsehir high school web site.
(http://www.nevsehirlisesi.k12.tr/ Date of access: 19.12.2011)

Outdated content on Internet sites damages the site (figure 3). At the same time, links that are malfunctioned or do not redirect to the correct page also adversely affect the functionality of the site.

Figure 3. Congratulate 24 November Teacher's day in turkey.
(http://diplisesi.meb.k12.tr/ Date of access: 19.12.2011)

2.2. Navigation design

A properly designed navigation system in Internet sites provides the user quick access to the desired information.

One of the main tasks of multimedia designer is to design a useful navigation system that will let the user know where he/she is roaming in the program, how to return to the previous menus, what options there are ahead at each stage, prevent being lost in between menus and windows (Cotton and Oliver, 1997, p. 147).

There are many models used to organize the content and impose it in order of importance. According to Özcan (2003, p. 49), seven basic models are used which are linear model, tree model, network model, parallel model, matrix model, overlapping model, spatial magnification model (figure 4).
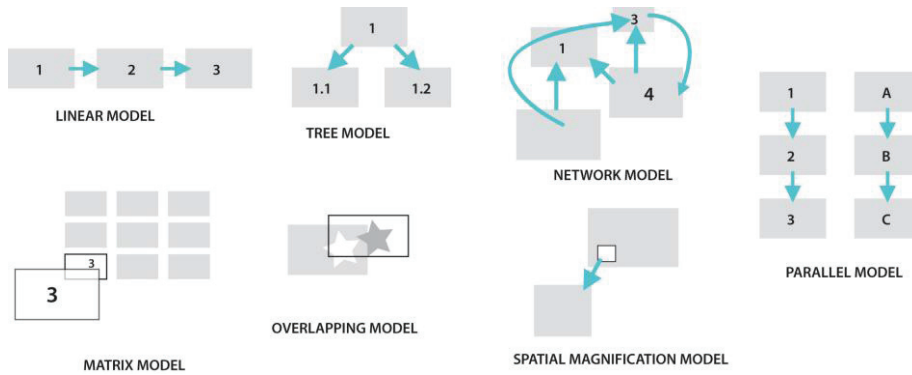

Figure 4. Seven models of organizing information.
(Yanık, A. (2008). Bilgilendirme Amaçlı Etkileşimli Ortamlarda Grafik Arayüz, Bir Dvd Kamera İçin Sayısal Kullanım Kılavuzu. Sanatta Yeterlik Tezi, Hacettepe Üniversitesi, Ankara)

Accordingly, these models have been used to organize information; a couple of them have been used at one time or very irregularly in the majority of secondary school web sites (figure 5).
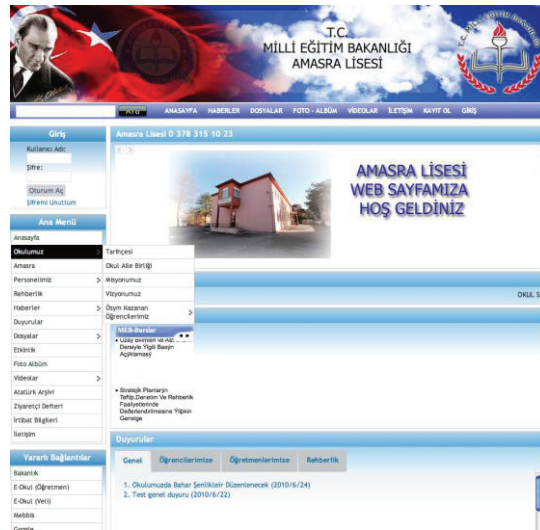

Figure 5. Using different various menu and navigation system.
(http://www.amasralisesi.k12.tr/ Date of access: 19.12.2011)

2.3. Layout and Composition

All of the actions to provide information with aesthetic and functional aspects are within the scope of layout (page layout). The main purpose of layout is to facilitate forwarding information and to make it into the material followed with interest (Keş, 2009 p. 77). Reading order in a computer application is from left to right and top to bottom as well as printed documents that the eye is familiar to. Accordingly the monitor design should be in the order of interaction. If there is a sequence of interaction that must be followed, for example, the order of controls should be listed from the top left of the screen to the lower right, if possible.

2.4. Typography

Typography is a vital part of interface design made for the screen. According to Sarıkavak (2004, p. 231), typography is "a perception of arrangement to provide the greatest contribution to understanding of the text by the reader". Typographic message transmission is provided by combination of qualities, which make the text readable. Among the factors that affect readability, selection, size, color and gap adjustment of the font and line length can be included.

It is not recommended to use fonts from more than two font families in Internet sites because of its adverse effects to readability and visual design (Sarıkavak, 2004, Peck, 2003) (figure 6). Bold styles of the same font can be used for highlighting and where the text is required to be separate from each other to provide the sequential order and variations. However, it can be said that alignment of a text completely in bold or italic style would have an effect that reduces readability because of having the image of broken screen.

Figure 6. Shows negative effects of using several fonts in a web site.
(http://www.sukrupasalisesi.k12.tr/ Date of access: 19.12.2011)

2.5. Color and Image

Color is one of the most effective visual design elements used to create sequential order. According to İstek (2004, p. 93), "By setting their color and tonal values we take the elements forward or backward. Color determines the order of importance of the elements and provides guidance. Therefore, helps the hierarchical arrangement." With the colors, not only the separation of elements such as navigation menus, content-text, title, images, symbols and advertisements can be provided but also the interface design can attain to a consistent view. The elements, which desired to be brought forward, can be accentuated by colors. According to Seçim (1996, p. 61), wrong colors selected and used lead to a confusion of meaning and turn to an image of bad stain on the page (figure 7). In the selection of color, the decision should be made thinking carefully according to the purpose of color choice and the desired kind of effect to be added by the color.

Figure 7. Shows negative effects of using several colors in a web site.
(http://kululisesi.meb.k12.tr/ Date of access: 19.12.2011)

In addition to the fact that the images used in the website interface have a stand-alone quality, it is important that they are also compatible with the interface and other images in terms of visual integrity. Moreover, the layout of images on the page should be designed to not tire the user. Otherwise, the image of the site could be negatively affected, and its availability may also be damaged.

3. Conclusion

As information and speed have become a requirement to comply with today's rhythm, the search for solutions to meet the communication needs of people has increased. In this regard, websites are a vital part of today's communication. Primary mission of a website is to provide communication. To ensure proper communication it is necessary to have a good website.

According to examinations made, websites of secondary schools considered to be designed usually carelessly. It has been observed that the contents are not organized in a hierarchical manner, and too much unnecessary information is almost interspersed to the websites. Therefore, as well as these websites may cause visual pollution, they are also problematic in providing the necessary communication. It has also been observed that these websites are usually designed by the teachers at the school (computer, painting teachers, etc.) or by non-specialists in this field.

Aesthetic and attractive graphical interfaces are factors that increase the success of application. Visuals must convey the message that the application is easy to use. Too busy and constantly moving visual material annoys the user. Children's being the target audience does not change this fact.

As a result, to design an effective website it can be said that it is not enough only to dominate the software technologies; the content has to be organized in order of importance in an aesthetic way. Design principles should be considered for creating an easily usable, readable and visually aesthetic website. To sort the content in order of importance "visual hierarchy", for the clarity of the site "simplicity" and "clearness", to bring forward the important information "emphasis", for an effective image "balance" and "rhythm", and for institutionalism "consistency" principles should be utilized. There is a need for a team to achieve this; the team should consist of content providers, programmers and graphic designers. It is important for the graphic designer especially to work close to the programmer at the design stage in order to direct the software according to ergonomics and visual criteria and to know the limitations.

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