Too Many Tools – Overtooling The Web

A Usability Study on Internet Viewbars

Anke Ahrend, Sabrina Duda

eye square GmbH, Schlesische Str. 29, 10997 Berlin, Germany

1 Introduction

The Web is flooded with various tools entailing different features. This usability study focuses on viewbars revealing usability problems as well as on user acceptance/ preferences. The increasing glut of these tools makes necessary personalization approaches with the users becoming more and more demanding with regard to tailored-to-fit solutions. Testing such small tools quite simply provides information on these aspects. The prototype's level of functionality was reduced, i.e.: horizontal prototyping. A horizontal prototype is a simulation (Life et al. 1990) of the interface where a real work can be performed. In a Web example, this means that a user can execute all navigation and search commands but without retrieving any real documents as a result of these commands. Horizontal prototyping makes it possible to test the entire user interface. Advantages are: Fast implementation with the use of various proto-typing and screen design tools; it can be used to assess how well the entire interface hangs together and feels as a whole. Fake data and other content is used for demonstration (Nielsen, 1997).

2 Usability and Image Testing: Comparing a Prototype Viewbar to two Viewbars already online

In this test, two viewbars already on-line - FairAd and alladvantage (http://www.fairad.com, http://www.alladvantage.com) - were compared to one proto-type viewbar, Maxamyzer. Scenario-based testing of the viewbars was the means of measurement for usability; i.e., different tasks had to be fulfilled by the subjects while thinking aloud, the commentator rating the quality of the tasks' completion at the same time. Right after having tested each viewbar, the testers had to fill in a questionnaire regarding usability and image. Afterwards, questions focusing on user and consumer behavior as well as their expectations on viewbars including various aspects (Internet shopping, personalization, surfing for money/incentives, responding to market research questions and other questions, etc.) led to a short discussion with the commentator. As the prototype showed a new composition of such a tool on the Web,

the study also included the user acceptance (use of the mouse, direct manipulation, drag & drop) as well as user acceptance of the prototype's unique design.

Below, the three different viewbar screenshots (Fig. 1 - 5) and their structures are listed:

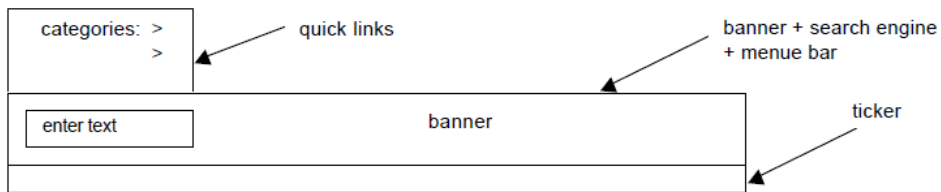Figure 1: FairAd

Figure 2: alladvantage

Figure 3: Maxamyzer
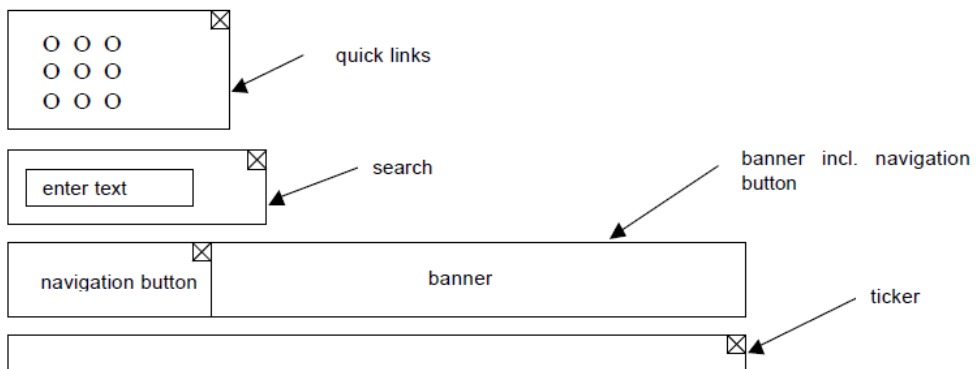

Figure 4: Structure of common viewbars

Figure 5: Structure of Maxamyzer prototype

2

The most important features and components of viewbars currently available on the Internet are: search engines, quick access to pre-defined Web-pages (personalization possible), news tickers, surfing for money, marketing banners with on-line marketing surveys. Those viewbars generally consist of one banner including all the features mentioned above with no provision of modularity. In comparison to these viewbars, the prototype shows a quite different structure: the viewbar consists of different modules (banner, search engine, quick links, news ticker) whereas the different modules can be activated as many times as desired (resulting in, e.g., one banner, 2 search engines, and 4 quick links on the screen) and each module be placed on the screen according to one's own option, plus the user may choose from different designs. This study focused on revealing usability problems as well as on user acceptance and their expectations with the focus being on personalization aspects. Also, benchmarking aspects were checked. The 20 participants were moderate computer and Internet literate, 16 of which had Internet access at home and were of higher education, the average age being 31. Most users (17) had never made use of viewbars before but were familiar with the term "surfing for money". The users' tasks included activating the tool, dragging it over the screen, having the stock quotes displayed, using the search engine, and deactivating the viewbar – the three viewbars were tested in alternating order.

3   Results of the Usability and Image Testing

Rating of the tasks' completion / Ratings: 1 – 5: (completion of tasks: 1 = excellent, 5 = very bad)

Tasks	FairAd	alladvantage	Maxamyzer
Activating the viewbar	1.5	2.2	3.2
Dragging the viewbar over the screen	4.1	3.5	2.4
Having stocks displayed	1.5	1.4	4.0
Using the search engine	4.1	5.0	2.1
Deactivating the viewbar	4.8	4.7	1.5

Table 1: Tasks and relevant ratings

Several usability problems regarding the Maxaymzer prototype were revealed by user performance as shown in Table 2:

Type of usability problem	no. of users facing problems	no. of users without problems
Control via right mouse button	16	4
Identification of navigation button	18	2
Differentiation banner/ navigation button	17	3
Activating other Modules	17	3
Changing layout	15	5
Selecting search engine	5	15
Identifying lens	15	5

Table 2: Usability problems of Maxamyzer prototype

The modularity was appreciated by most of the users (12) as common viewbars were considered not to be enough flexible, whereas a modular tool including drag &drop features gave the users the feeling of completely controlling the tool according to their personal and specific desires. The missing menu bar of the prototype created problems for 18 users (they could not find it at all), 9 of which clearly requested a menu bar. Search engine and quick links were requested and necessary for all users. 19 of 20 participants requested personalized links, i.e. having their 10 - 20 most visited and favorite sites included in the quick links. The search engine's symbols (i.e., arrows, lens) were criticized as they were way too small. Fun of use and support for surfing the Web was not realized by all the users immediately. As soon as they noticed that such a tool with an integrated search engine makes obsolete invoking a search engine's home page, and that the search results are displayed instantly, the acceptance rose by 80%.

Based on these results, Table 3 states the overall users' rating:

Viewbar	Rating
FairAd	3.8
Alladvantage	2.0
Maxamyzer	3.0

Table 3: Overall rating

Benchmarking

Surfing for money:
Younger users were more familiar with and attracted by this feature; 10 users decided for reimbursement, e.g. as an equivalent for their phone bill.

Marketing banners:
They were of no great importance to the users. 13 participants wouldn't answer to questions displayed on a banner. If the answers were given instantly, 15 users would participate in benchmarking, the participation depending on the users' respective interests.

Name of the tool:
The rating of 4.2 (1 = excellent, 5 = very bad) showed that the name "Maxamyzer" did not meet the users' expectations with regard to such a tool and only 3 users associated the name to the feature of the viewbar of letting the tool grow by activating different modules.

4 Recommendations and Conclusions

Regarding viewbars in general:
The study showed that the users preferred conservative and "easy-to-grasp" tools. The design should be simple yet pleasing. Personalization in fact plays an important role for Web users according to their increasing demands toward Web applications.

Ease of use was the most important dimension for satisfaction. The meaning of such tools was not understood and/or accepted by all the testers, according to their statements mainly due to German Internet user and consumer behavior (e.g., why shop on the Internet when the next store is so close, etc.). Nevertheless, seeing the advantages of such a tool led to a much higher acceptance.

Regarding the prototype Maxamyzer:
The majority of the users (15) would prefer having the possibility of changing the size of the viewbar. Also, a dynamic tool that could be placed in the back- or foreground as desired was requested (17 users) persuing a different layer UI approach. Another feature asked for by most of the participants (16) was the packetizing of the different modules with one click making the structure even more flexible.

As users are opt to use devices as known; control via right mouse button is critical; double clicking, navigation button should be made clear for identification (icon, labelling) or a menu bar should be included. In addition, a help function would be of use as well.

The arrows and the lens to the right of the search engine are definitely too small; consequently, their size shall be changed.

The name Maxamyzer does not provide for associating it with the tool and its features and should, therefore, be thought over. Modularity and personalization play an increasing role for tools on the Web as the users' demands are increasing and such features can be easily adopted to those requirements and result in greater user acceptance and satisfaction.

5   References

www.fairad.com
www.alladvantage.com
Life, M.A., Narborough-Hall, C.S., and Hamilton, W.I., eds. 1990. *Simulation and the User Interface*.
Taylor and Francis, London, UK, ISBN: 0-8506-6803-4
Nielsen, J. Usability Engineering. *The Computer Science and Engineering Handbook,* CRC Press 1997, ISBN 0-8493-2909-4.