User Expectations For the Location of Web Objects

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ABSTRACT
This study examined where individuals expect specific web-related objects to be located on a typical web page. The web objects examined were: web page title, internal and external grouping of links, a link to the homepage, internal search engine, and advertisement banner(s). The results suggest that users do have definable expectations concerning the location of these web objects.

Keywords
Website object placement, display structure, advertisements

INTRODUCTION
Currently when constructing websites, designers have little empirically based information on where to place specific web objects on a web page. This study sought to address this need by examining five of the most common types of web objects: 1) web page title banners, 2) grouping of links that internally connect web pages within the same site, 3) grouping of links to web pages that are external to a website 4) "back to homepage" link, 5) internal search engine, and 6) advertisement banner(s).

Participants
In this study, 304 participants (121 males, 183 females) with one or more years of web experience (mean of three years) were examined. The average age of the participants was 20 (range of 18 to 63), with almost two years of college. They reported using the web primarily for educational purposes, followed closely by general surfing of the web.

EXPERIMENT
Using a depiction of a browser window that contained eight horizontal and seven vertical grid squares on a white background, participants were asked to place cards representing each of these objects where they expected them to be located on a typical web page. The cards could be placed horizontally, vertically, or overlap, and could be centered between the grid lines.

The cards were also of different sizes, depending upon which web object they represented. This was to approximate their actual size on a web page. The internal and external link web objects occupied three squares, the internal search engine occupied two squares, and the rest of the objects occupied one square. The participants were given one card per web object, except for the advertisement object in which they were given two cards. This was done because commercial websites commonly have two or more advertisements banners per web page.

The tabulation was accomplished by simply counting the number of times participants selected each square for each web object. The results are presented below. Each shade represents a specific range of times each square was selected as an expected location for a particular web object. The darker the shade, the greater the number of times a particular square was selected (see Figure 1).

<table>
<thead>
<tr>
<th>Square Count</th>
<th>Shade</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 5</td>
<td>Lightest</td>
</tr>
<tr>
<td>6 - 15</td>
<td>Light</td>
</tr>
<tr>
<td>16 - 45</td>
<td>Medium</td>
</tr>
<tr>
<td>46 - 65</td>
<td>Medium Dark</td>
</tr>
<tr>
<td>66 - 85</td>
<td>Dark</td>
</tr>
<tr>
<td>≥ 86</td>
<td>Darkest</td>
</tr>
</tbody>
</table>

Figure 1. The darker the shade, the more selected

Web Page Title Banner
Figure 1 shows that most participants expected the title of a web page to be located at the top-center of the page, instead of the commonly recommended left justified position.

Internal Website Links
Figure 2, shows that most participants expected a grouping of links leading to web pages within a website to be almost exclusively located at the upper left side of a web page. Only a small number of participants expected these links to be located in other areas, such as the right side of the page.

External Website Links
Figure 3, shows that most participants expected a grouping of links leading to web pages that are external to a particular website to be located at the right side of a web page. However, a smaller but sizable number of
participants expected them to be located at the lower left side of the page.

Back to Homepage Link
Figure 4 shows that most participants expect the "back to homepage" link to be located at the upper left side of a web page. This was generally anticipated since this area is the conventional region to place such a link. However, a large number of participants also expected it to be located at the bottom-center of the page.

Internal Search Engine
Figure 5 shows that most participants expected a website's internal search engine to be centered at the upper half of a web page. A smaller number expected it to be located at the top-right or bottom-center side of a web page. This expectation is not too surprising since most search engines place their search field at the upper-center portion of their web page.

Advertisement Banners
Figure 6 shows that most participants expected advertisements to be centered at the top of a web page. A smaller number expected it to be located at the bottom-center of the page. However, what may be more interesting is knowing where participants do not expect advertisements to be located. That is, it is possible that an advertisement may be more effective if it is placed in an area where it is not expected because people may pay more attention to this area.

CONCLUSIONS
This study examined where individuals expect certain web objects to be located on a typical web page. The results are summarized as follows: 1) the web page title is expected to be located at the top-center of a page, 2) the internal web page links are expected to be located on the upper left side of a page, 3) the external web page links are generally expected to be located on the right side or lower left side of a page, 4) the "back to homepage" link is generally expected to be located at the top-left corner and the bottom-center of a page, 5) the internal search engine is generally expected to be located at the upper-center of a page, and 6) advertisement banners are generally expected to be located at the top of a web page.

This study has several limitations, however. First, even though the age range was fairly broad, the majority of the participants represented a fairly young population. Second, this study dealt with a broad range of web experience, from novices (six months of web experience) to experienced users (four or more years of web experience). Thus, a more extended study should examine if different age groups have dissimilar expectations for the location of web objects, as well as examine differences in mental models between individuals with a great deal of web experience from those that have very little experience.