



## A Comparative Study on Adobe Dreamweaver and Microsoft FrontPage

**K.Thirugnana Sambanthan**

Department of IT&CS  
Everonn Indigrow Institute of Professional Studies,  
Coimbatore, India

**Dr. S.S.Dhenakaran**

Department of CSE  
Alagappa University  
Karaikudi, India

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**Abstract:** This paper is a study about the two softwares Adobe Dreamweaver and Ms Frontpage , how well each tool supports users who have varying knowledge about the softwares, and what the visual design mode of each tool contributes to the web page design/implementation process, the tool's approachability, and the overall quality of the experience. This paper also deals with the comparison of these two softwares with respect to Stability, Clarity, Learn- ability, Functional Completeness, Pleasantness, Beginner tools, Advanced tools, supportiveness to other softwares etc.

**Keywords:** Ms Frontpage, Adobe Dreamweaver, Tools, Support, Clarity, Learn ability

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### 1. INTRODUCTION

Over the past few years we have seen an explosion in the uses of the Internet. From E-mail, eBay and e-commerce to WebPages, Webcams and WebCT, all sectors of society have been touched by e-frenzy. With this explosion has come the desire for the common person to make their virtual presence known. Since the beginning, HTML has been the lingua franca for publishing Web content. Although HTML is by no means a complex language, many people thought that it would be helpful to have a visual way of creating Web content so that you can see how things are shaping as you work. Enter WYSIWYG. This lengthy acronym stands for What You See Is What You Get and it is the philosophy behind the HTML editors on the market today. Although there are plenty of choices out there (even free ones), this article will only focus on Microsoft's FrontPage and Adode (Macromedia's) Dreamweaver.

This paper is the comparative study of the web designing tools Adobe Dreamweaver and Microsoft FrontPage. The main objective of the study is the evaluation looks at user experiences with two visually oriented Web design tools. We wanted to know how the design experience varied across two different tools designed for very similar tasks. Are there significant differences, and if so, what are they? The two products differ in the extent to which they offer supporting Web design functionality, utilities, and extensions, but both should be equally capable in terms of common page creation and editing functions. But for users attempting these common design tasks, where do the tools diverge? Does one product afford users significant advantages for the given tasks? If so, in what way? With which product were users more comfortable?

### 2. MICROSOFT FRONTPAGE

FrontPage will be first since it is the one that has been most widely used on campus. FrontPage's strength is in its simplicity for the user. It is considered better for those new to HTML and WYSIWYG editors. Firstly, since most people are very accustomed to the workflow of Microsoft's Word, the transition to FrontPage is quite seamless: the layout is like a beefed-up Word application. All of the same commands and the same icons are present. Secondly, FrontPage has what is called FrontPage Server Extensions.

FrontPage used to require a set of server-side plugins originally known as IIS Extensions. The extension set was significantly enhanced for Microsoft inclusion of FrontPage into the Microsoft Office line-up with the 97 release and subsequently renamed FrontPage Server Extensions (FPSE). Both sets of extensions needed to be installed on the target web server for its content and publishing features to work. Microsoft offered both Windows and Unix-based versions of FPSE. However, newer versions of FrontPage also support the standard WebDAV protocol for remote web publishing and authoring.

Some features that are part of the last version of FrontPage include:

- Help navigating through your site, and seeing your file structure, visually
- Built-in features for HTML, CSS, and Java / JavaScript (partial)
- Built in image editor (MS Image Composer)
- Support for CSS-based themes (like ASP.NET master pages)
- When you change the URL of a page, all the links to that page are dynamically changed
- Task-assignment for team projects
- Support for rich clipboard data import (copy/pasting data from Internet Explorer into FrontPage 2003 will automatically download media resources such as images and save them locally)

#### **Versions of Ms FrontPage.**

- Vermeer FrontPage 1.0
- 1995 Microsoft FrontPage 1.1
- 1997 Microsoft FrontPage 97 (version 2)
- 1997 Microsoft FrontPage Express 2.0
- 1998 Microsoft FrontPage for Macintosh 1.0
- 1998 Microsoft FrontPage 98 (version 3)
- 1999 Microsoft FrontPage 2000 (version 4)
- 2001 Microsoft FrontPage 2002 (version 5)
- Microsoft Office FrontPage 2003 (version 6)

### **3. ADOBE DREAMWEAVER**

Adobe Dreamweaver, or simply Dreamweaver, is a web development tool, originally created by Macromedia. Initial versions of the application served as simple WYSIWYG HTML editors but more recent versions have incorporated notable support for many other web technologies such as CSS, JavaScript, and various server-side scripting frameworks. The software is available for both the Mac and Windows platforms, but can also be run on Unix-like platforms through the use of emulation software such as Wine. Dreamweaver is currently owned by Adobe Systems who acquired Macromedia in 2005.

As a WYSIWYG editor, Dreamweaver can hide the details of pages' HTML code from the user, making it possible for non-coders to create web pages and sites. A professional criticism of this approach is that it produces HTML pages whose file size and amount of HTML code is much larger than they should be, which can cause web browsers to perform poorly. This can be particularly true because the application makes it very easy to create table-based layouts. In addition, some web site developers have criticized Dreamweaver in the past for producing code that often does not comply with W3C standards though this has improved considerably in recent versions. Dreamweaver 8.0 (the version prior to the recently released 9.0 within CS3) performed poorly on the Acid2 Test, developed by the Web Standards Project. However, Macromedia has increased the support for CSS and other ways to lay out a page without tables in later versions of the application, with the ability to convert tables to layers and vice versa.

Dreamweaver is a tool that has been created with the Web developer in mind. One such feature is the Layout View that enables the user to create tables visually. Since tables are mainly used for layout purposes in HTML, it would make sense to create tables visually.

#### **Versions of Dreamweaver.**

- Dreamweaver 1.0 Released December 1997;
- Dreamweaver 1.2 followed in March 1998
- Dreamweaver 2.0 (Released December 1998)
- Dreamweaver 3.0 (Released December 1999)
- Dreamweaver UltraDev 1.0 (Released June 2000)
- Dreamweaver 4.0 (Released December 2000)
- Dreamweaver UltraDev 4.0 (Released December 2000)
- Dreamweaver MX [Internal version number: 6.0] (Released May 2002)
- Dreamweaver MX 2004 (Released September 10, 2003)
- Dreamweaver 8 (Released September 13, 2005)
- Dreamweaver CS3 (Released April 16, 2007)

### **4. ANALYSIS PLAN**

For a successful comparison of two things or more, it is important to note that some very vital points and remarks are inevitable. It is good to have at the back of our minds that an effective comparison attempts to demonstrate one of three general purposes:

- Two things thought to be different are actually similar.
- Two things thought to be similar are actually different.
- Two things, although comparable are not equal- that is, one is better than the other

Our analysis plan evaluated how users' interactions compared across two web design tools: Adobe Dreamweaver and Microsoft Frontpage. The following plan discussion summarizes our methods and notes particular revisions to the original methodology.

### **5. ASSESSMENT GOALS**

We wanted to know how well each tool facilitated Web page creation for designers to visually oriented Web design tools. That is, we wanted to know how well each tool supported users who are relatively new to it, and what the visual design mode of each tool contributed to the Web page design/implementation process, the tool's approachability,

and the overall quality of the experience. To best answer these questions and realize my assessment goals, We selected the following three interrelated metrics of tool quality :

**Learnability**--the degree of user effort required to master tool functionality--lends itself well to an evaluation that focuses on users to the design tool; the users already know what they want to do, but they must discover and use each tool's particular affordances to achieve their task goals. In effect, learnability measured how well the design tools helped users transfer prior knowledge of HTML and Web page creation from a text-editing mode to a visually oriented Web design model.

**Functional completeness**--how fully a tool supports the accomplishment of tasks in simple contexts--measured the degree to which each tool supported implementation of specific Web design elements. In our scenario, users were asked to perform a number of typical and basic tasks in HTML programming to convert a design into a working page. Including this metric allowed us to look for specific tool problems (bugs) or functionality omissions that our test subjects might encounter while attempting to complete their designated tasks.

**Pleasantness**--which in this case we equate with lack of frustration--is a qualitative measure of tool usability; if a tool is difficult or frustrating to use it reflects poorly on the usability of the software. This can also point to issues of learnability and/or functional completeness.

To meet my assessment goals, We specifically sought test subjects who would approach the evaluation from a designer's perspective. We conducted our evaluation using six participants with varying backgrounds in HTML and Web page creation. Ideal candidates would have at least basic knowledge of HTML page composition and at most intermediate familiarity with either of the Web design tools under study.

## 6. TEST METRICS

Each subject was asked to complete a set of unordered tasks in both Dreamweaver and Frontpage. Subjects were asked to create two web pages one a simple basic one and another one a complex page both in FrontPage and Dreamweaver. To evaluate functional completeness we focused on the user's ability to complete the given tasks. If properly done (assuming the tool is functionally complete in this sense), the final page should very closely match the supplied layout model. This metric was evaluated post-test by examining the resulting page and comparing it to our standard. Questionnaire results provided insight to each user's perception of functional completeness for each tool. Learnability was evaluated by observing how the user navigated tool options. The speed and apparent comfort with which previously explored controls were used was be subjectively evaluated through observation and by analyzing Likert scale questionnaire responses. Pleasantness was subjectively measured through similarly scaled questionnaire responses and provided quantitative results regarding the user experience. Design Objective and Instructions Our testing protocol focused on analyzing the larger building block components of creating a new Web page for a site.

Subjects were given a completed layout design to be implemented in each tool . The subject's task was to convert the layout into a suitably and fully executed Web page. This approach may have bypassed the creative process of conceptualizing the page, but it none the less involved design in structuring the HTML page. The specific elements used to add content to a page and how that content is structured is an important aspect of Web design and can affect the maintainability and portability of a page. One common example of the latter surfaces in the way page appearance varies from one browser brand to another (e.g., Internet Explorer vs. Netscape) or even between different versions of the same browser. Users were provided with a hardcopy printout of the complete Web page layout. Each subject was asked to create this page using the tools under evaluation. Image files for the background and pictures were supplied. The hardcopy of the page layout provides most of the information needed to execute the page layout in both design tools.

There are multiple approaches to implementing a design objective in HTML, and we expected some variation, not just between the two tools, but within each tool. The important aspect to capture was the specific tool functions selected to carry out each objective and how well the selected approach served the subject's needs. The results will directly inform each tool's assessment in terms of functional completeness.

We chose to have the subject answer a questionnaire after the completion of the website designing. An objective measurement of a subject's skill is valuable because it lets the researcher evaluate the difficulty of the experimental task. The questions asked can serve the purpose to gain additional insight into how well the subject was able to use the applications.

**Learnability:** By documenting when participants begin to browse or hunt for an operation, We hoped to understand certain trends relating to learnability. To illustrate, if most of the initial browsing or hunting that takes place has a higher overall average time, while the idle browsing towards the end of the task is much shorter, then this suggests a certain level of the learnability of tool.

**Pleasantness:** For the purposes of this paper, recall that pleasantness has been equated with lack of user frustration. Sometimes this frustration might be observed while other times it might be seen through the results of participants hunting expeditions. Are the participants able to achieve everything they wish through their menu and tool searches.

**Functional Completeness:** Although both Dreamweaver and Frontpage have been developed and improved for a number of years, they might still have errors, bugs, or inconsistencies that lead the participant to have approach tasks in

roundabout ways or, in the worst case, prevent completion of the task. Serious errors of the latter type are typically unexpected, but possible, and directly relate to the functional completeness of the tool. Our largest concern regarding the “Help” offered in both web design tools was the depth and breadth of its content or functional completeness. Here we were concerned with how easy Help was to find and to use. We also wanted to record whether Help contained the topics needed by our subjects, and whether the information located was useful for the task at hand. After the participant had completed the task, the number of design omissions and the total time for the session was documented to provide more quantitative data with which to compare the two web design tools. By analyzing the HTML file that resulted from individual sessions, We were able to determine whether or not each of the indicated design tasks were accomplished. We defined errors as omissions or incorrect implementation.

The subjects were asked about the User Interface that makes them design quicker. The time taken for designing the Figure-1 and Figure-2 web page was also taken. The updating time, clarity and visibility, downloading time of the contents when going to preview was also taken into consideration. The subjects has to select which User Interface has more number of tools and Cascading Style Sheets. Then the subjects were asked which tool they prefer? And why?

Two types of Questionnaire were used to collect Information from the people. Questionnaire-1 was used to collect information from the subjects who participated in the designing of the web page. Questionnaire-2 was used to collect information from other IT persons. Other than that the surveys were done in the egroups like [itcomputer@yahoogroups.com](mailto:itcomputer@yahoogroups.com), [synergybat17@yahoogroups.com](mailto:synergybat17@yahoogroups.com), [mcaicfai@yahoogroups.com](mailto:mcaicfai@yahoogroups.com) and also in <http://www.webmasterworld.com> , <http://www.computing.net> , <http://www.killersites.com> , <http://answers.yahoo.com> Using these details and comparing the various versions the values of TABLE-1 is arrived.

**TABLE -1**  
*Direct Comparison: (values range from 1 to 10 (highest))*

	<b>FrontPage</b>	<b>Dreamweaver</b>
Usability	6	8
Beginner tools	8	6
Advanced tools	4	9
Stability	5	7
Price	6	9
Clarity	6	8
Updation	7	8
Uploading	5	6
Learnability	7	7
Pleasantness	7	9
<b>Working with:</b>		
Text	8	7
Tables	6	8
Normal images	7	9
Interactive images	7	9
CSS	4	8
DHTML	7	7

## 7. CONCLUSION

All products have different strengths and weakness. FrontPage is not exempt from such realities and actually some of its strengths are also some of its weaknesses. For instance, its ease of use makes it a bit unwieldy to do more

complex tasks. Another is, because of its likeness to Word, it flows like a text editor. This asset becomes problematic when higher level editing is needed (especially with graphics), since Web documents are markedly different from text documents. These differences between Web and text documents should be reflected in the tools that create them. Dreamweaver is one such editor that has fashioned itself to be an appropriate tool for the Web development task.

It is found that Frontpage is useful in creating simple web pages quickly. Beginners who have already worked in Ms Office to some extent feel Frontpage is comfortable. But when it comes to complex Web Designing Dreamweaver is the best.

FrontPage does not require any prior HTML or site architecture knowledge. It handles most of the work for you. For those that want a good tool with a shallow learning curve to create simple sites, FrontPage is the way to go. Dreamweaver is a more powerful tool that does require a bit more learning and effort. While it takes a bit longer to learn, there is great reward for the time spent.

The fact that Dreamweaver is perceived as having extensive functionality beyond that necessary for this experiment did not reduce its learnability. We couldn't accurately assess learnability over time (which we perceive to be a distinct metric) because our task was not sufficiently comprehensive and did not require repetitive behavior that would exhibit learning. But the frustrations shown by Composer users do indicate some design environment issues that should be addressed in future iterations of the product.

MS Frontpage, is a strange program that generates a lot of strange code that Netscape does not always handle well whereas the other strange Microsoft product, Internet Explorer handles it better. FrontPage is generally not well suited for administering medium to large corporate websites.

Overall, we learned that Dreamweaver is a better tool as the complexity of the task increases. All the subjects said they would consider using Dreamweaver for future, more advanced work.

Advanced tools like Camtasia which is a software product for recording on-screen activity. This tool can be used to capture individual use sessions. Later they can play back the captured files to evaluate each session. Using these advanced tools many minute details can be got. If researchers use these tools they can come to an accurate conclusion.

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