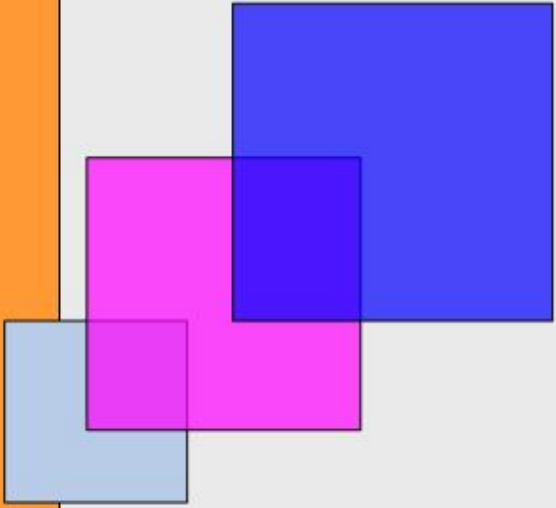


Multimedia Design Assessment
Report

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Team Two



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Executive Summary

Abstract

Multimedia comprises the use of various media formats to convey information. It is used extensively in many websites not only to help make content more interesting and interactive, but also to set websites apart and to garner interest from users. The effectiveness of these multimedia applications is harder to discern, requiring objectivity and defined criteria for evaluation. In this report we present one method for evaluating the effectiveness of multimedia and use that method to evaluate three websites.

Introduction

Multimedia has become an accepted part of everyday life online and is ubiquitous in our culture. From enhancing tasks as mundane as grocery shopping or banking, to enabling more complex tasks such as continuing education or online gaming, multimedia has made online life multidimensional. If you want to shop for paint colors online, tools may be available that let you upload a photograph of your room and apply the color to the photograph, seeing how the color would actually look in your home¹. If you want to see how a given outfit would look on your body, you can use a photo of yourself, “try on” clothing, and ask your friends for feedback².

The more that users see such tools online, the more they expect to find similar tools on other websites. Therefore, it is important for website designers to consider the rhetorical strategy and the effectiveness of any multimedia they are including in their projects. To evaluate three selected websites and their use of multimedia objectively, each of four team members used the team-developed rubric for scoring nine elements essential to a good multimedia experience.

Overview

Our team evaluated the following sites:

- MyEyeDr. (<http://www.myeyedr.com>)
- Tomboy Tools (<http://www.tomboytools.com>)
- Multimedia Learning (<http://www.multimedialearning.org>)

¹ Benjamin Moore Paint. <http://www.benjaminmoore.com/en-us/for-your-home/personal-color-viewer>

² Banana Flame. http://www.bananaflame.co.uk/index.php?option=com_virtuemart&page=shop.wssinstructions

We chose these sites from a variety of websites using multimedia because they represent very different definitions of the terms *multimedia* and *interactive*. In essence, “multimedia” simply means that you are using more than one media type (e.g., audio, video, drawings). Merriam-Webster Online confirms this general understanding, defining multimedia as “using, involving, or encompassing several media <a *multimedia* approach to learning>.” Interactivity, however, is defined as “involving the actions or input of a user; *especially*: of, relating to, or being a two-way electronic communication system (as a telephone, cable television, or a computer) that involves a user's orders (as for information or merchandise) or responses (as to a poll).”

All three websites were designed for companies who are marketing products and services: (i.e., optometry, hardware geared toward women, and K-12 education). One of the websites, Tomboy Tools, is a true e-commerce site, while MyEyeDr. does not yet have online ordering (for contact lenses) activated. MyEyeDr. was recently redesigned to allow for more interactivity and engaging content. Our third site, Multimedia Learning, has “multimedia” in the name but was found to be less sophisticated than the other two sites in terms of both the available multimedia and its overall tone and ethos. To fairly assess each site, we used the following criteria:

- Overall content
- Organization
- Originality
- Functionality
- Content/Aesthetics
- Engages the User
- Navigation
- Credibility
- Spelling/Grammar

For each heuristic, specific criteria were detailed in the Evaluation Rubric (see [Appendix A: Evaluation Rubric](#)). We scored each element for each site as follows: 10 points for “Does Not Meet Expectations”, 20 points for “Meets Expectations”, and 30 points for “Exceeds Expectations”; each site could score a minimum total of 90 points and a maximum total of 270 points. All team members were assigned at least two heuristics with which to assess each of the three sites. In addition, each team member provided detailed feedback as to how well the site matched the specified criteria and assigned a corresponding score to that site (see [Summary of Results](#)). The final data is correlated and presented in this report.

The following sections contain an analysis of each website, including an introduction, comprehensive review, and specific observations made by the team.

Web Site Analyses

MyEyeDr.com



Figure 1. MyEyeDr.com

Introduction

MyEyeDr. is a full-service, regional eye care company with offices located throughout the Washington, DC metropolitan area. The MyEyeDr. site offers patients the convenience to access and update their personal information and medical history, as well as to request an appointment online. If a patient calls for an appointment, the scheduler assists and then redirects them to the website. Giving the patient the ability to fill out forms ahead of time is part of the company's effort to provide a better service experience. Annual appointment reminders can be sent via e-mail, with a reminder for the patient to update information, if necessary. The site also provides general information about the company, including the following:

- Career opportunities
- Product information
- Insurance information
- Office locations
- Privacy policy

The metaphor used in creating this site is that of a brochure. Selecting a section causes animation to start, which “folds out” that section of the page. This effectively creates a site that seems very familiar to all levels of users, who may be accustomed to looking at leaflets and brochures in other doctors’ offices.

Comprehensive Review

The MyEyeDr. site provides an excellent example of professional, effective use of multimedia. The narrow scope of the site enables new and existing patients to find what they need quickly. The simplicity of multimedia usage streamlines the site and makes for quick response times. The user is not bombarded with videos, music, or unnecessary movement. Most animation is specific and relevant to a user action, although brief movements (of the mother with children on the “Eyeglasses” block and of the receptionist on the “Request an Appointment” block) do catch the user’s eye and direct them to areas of possible interest. The simplicity of the site, which minimizes wait time, helps ensure that the patients will be pleased with their online experience. The absence of audio and video media, other than animation during transitions, does not affect the aesthetics or usability of the site for its intended audience. However, the company might benefit from adding a gallery of eyeglass photos, videos containing information about transitioning to contact lenses, or interactive tools for determining the right frames for your face, for example. Overall, the site is easy to understand and user-friendly, and is a good vehicle for highlighting the company’s quality eye care and customer service.

Evaluation

The following table provides the completed evaluation rubric for MyEyeDr.com. In addition, a complete description of the group’s findings regarding this site is included.

Table 1. MyEyeDr.com Evaluation Rubric

www.myeyedr.com/			
Heuristic(Points Available)	Does Not Meet Expectations (10)	Meets Expectations (20)	Exceeds Expectations (30)
Overall Content			30
Organization			30
Originality			30
Functionality		20	
Content/Aesthetics			30
Engages the User			30

www.myeyedr.com/			
Heuristic(Points Available)	Does Not Meet Expectations (10)	Meets Expectations (20)	Exceeds Expectations (30)
Navigation		20	
Credibility			30
Spelling/Grammar			30
Score	0	40	210
Total Score for Website	250		

Overall Content

- The overall content is engaging and is appropriate for the intended audience and purpose. The graphic representations for individual topics grab the users' attention and aid in comprehension of the material and navigation of the website. In addition to the products and services offered, information regarding the company and physicians, locations, and promotions is also provided. All of this information is important to potential users of this website.
- The website content is well written, flows easily, follows a logical flowchart, and is very readable. The content does not cause confusion by using undefined acronyms or complicated terminology.
- The website uses a logical amount of content for the intended audience and purpose. Users are not bombarded with excessive, unnecessary content. The content is not redundant and maintains a professional tone.
- The website content includes appropriate introductions and conclusions for each topic. The unique Flash transitions (foldouts) are apparent and effective, and they add to the overall user experience. These transitions help to set the website apart from similar websites.
- The content includes an effective metaphor. Users are able to access information by choosing the appropriate button/link, which is clearly marked with a heading and interactive graphic representation of the content. Not only is the graphic representation of the content an effective tool to increase comprehension and ease of use, but also the addition of the interactive element draws users' attention and keeps them engaged.
- The content and media work hand-in-hand to provide a unique user experience.

Organization

- The website is well organized and easy to use. It uses a logical and consistent layout to present the content effectively
- Topics of most importance are prominently placed and organized in larger content blocks.
- Topic blocks include a heading and representative graphic, which is effectively used to minimize the user's cognitive load.
- Website and social media links are appropriately displayed and chunked together to ensure that they are easily located. Main topic content is also chunked together appropriately and presented logically to aid in comprehension and ease of use.
- All objects, icons, and options are visible.
- The website effectively balances text and graphics and does not overwhelm the user with information.
- The website effectively uses a hierarchical structure. Main topics are prominently displayed. Items of most interest (i.e., eyeglasses and what's new) to users have the largest sections and subsequent foldouts. Additional helpful links are displayed along the bottom margin. Individual topics also include various subtopic buttons to reveal additional related content.
- The website and its individual elements are intuitive to the user. Each content block is an active link to content, rather than just the heading or a portion of the graphic. The user is able to click on any part of a graphic to navigate through the website. Helpful links and subtopic buttons are formatted appropriately to indicate additional navigation possibilities.

Originality

- All content, including media and graphics, is unique to this website. There is no evidence of borrowed or reused content.
- The website appears to be created using a unique template rather than a standard software-provided two-panel or three-panel template.
- Corporate branding, including a unique logo and color scheme is used consistently throughout the website to tie all elements together.
- Through the use of interactive graphics, content foldouts, and an unusual layout, the website presents its content in a unique and original way.

Functionality

- Flash was used to create this website.
- All media functioned properly.
- An "x" was provided on the bottom of each website page as an option to close the flash screen (except on the Contact Lenses foldout, which is incomplete and does not allow you to close it with an "x").

- There were no errors reporting missing files or videos. The website did not provide these extra features, since all content was available on the page as needed.
- The coupon provided at the end of the survey is not easily printed. The entire screen must be printed.
- The InSights page contains lots of information, but there is some HTML code showing instead of punctuation on the CVS and Diabetes pages. The Allergies page does not seem to have this problem, but does seem to indicate that it is Spring; however, it is now Fall.
- The My Services page lets the user save time during the actual appointment block by creating an account (username/password) and filling out online patient history forms ahead of time. All of this was previously done on paper forms at the time of the appointment. Now patients are asked to fill out the information (where possible) before the appointment in order to expedite their care. Secure socket layer (SSL) is used for secure authentication.

Content/Aesthetics

- The unique, asymmetrical style of the information blocks seems modern and inventive, leading the user to infer the same about the company.
- The blue tones throughout the site build ethos through the cool, pleasing, professional look.
- Simple, cartoon-like drawings of people appeal to a wide audience.
- Movement in key “blocks” draws the eye to important elements.
- Content is appropriate for patients, containing information specific to customers looking for eye exams or corrective lenses. The Insurance link, for example, lists all of the accepted insurance plans. The Locations link allows the patient to search in the tri-state area for a location that is convenient to them.
- The website is very well structured and organized.

Engages the User

- Movement in certain blocks of information draws the user’s attention.
- Easy “clickability” (clicking anywhere on a block takes you to the link) is appealing to users of any level or age group. Users do not need to be proficient with a mouse or with being able to precisely place the cursor before clicking.
- Smiling faces on the cartoons offer a friendly atmosphere to the site visitors.
- The unique look and feel of the site invites the user to explore.
- The top block, “My Services”, containing an image of a file folder called “History” relates in a patient’s mind to “medical history”, a term used often in doctor’s offices.
- The media employed in the site serves the purpose of the website, attracting new and existing patients’ attention and enabling exploration and experimentation with unique content, to ensure their return.

Navigation

- All labels and navigational titles were clear.
- The navigational items and the page titles matched.
- There is no option to close the Contact Lenses page when it is open. Another item on the navigation has to be clicked on in order to close the Contact Lenses page.
- This website used a unique way to create a path to find information.
 - All categories are listed on one page with options to open each one within the same page without having to navigate away from the Home page.
 - It appears that this arrangement was used to place the most popular categories at the top, upper left area of the page where users typically look when first arriving at a website, thereby increasing visual saliency.

Credibility

- Patient history created before the appointment is protected by SSL to ensure that patient data will not be readily available without an authenticated login. Login requires that a user create an account so that all data is tied to that record.
- The copyright statement is included at the bottom of each page.
- The About MyEyeDr. page provides information about the founders and indicates social responsibility on behalf of the company.
- Links to enable social media “following” is provided at the bottom of each page and is unobtrusive.
- The page translated in Spanish provides information about promotions and locations, as well as indicates that all of their offices employ staff that speaks Spanish.
- Information about ordering indicates that it is coming soon.
- Patients can request appointments online.
- Alternate contact and procedural information for emergencies is also provided.

Spelling/Grammar

- One missing comma in the Insurance foldout text.
- No spelling errors noted.

TomboyTools.com

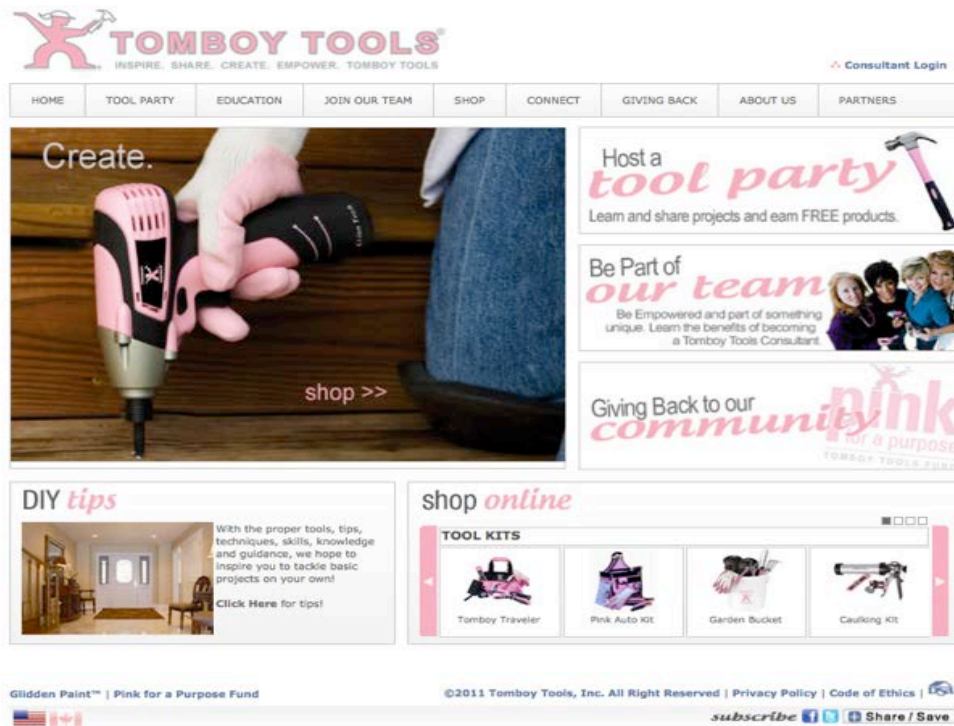


Figure 2. TomboyTools.com

Introduction

Tomboy Tools is a unique company geared toward marketing power- and hand-tools for women for a variety of uses, including home and auto repair, and gardening. In addition to being specially designed to fit a woman's smaller hand, the tools are pink, which promotes some of the women-centered social responsibility initiatives that the company is involved with. The color also differentiates a woman's tools from those of the men around her. As one satisfied customer indicated, "There's no way one of the guys at work is going to walk away with my pink hammer-drill!"

Tomboy Tools offers online ordering through a true e-commerce site setup, and ordering through a home party model like that popularized by Tupperware. At the home parties, however, women are given an opportunity to do a specific project in which they learn how to use the tools and build confidence. For example, a host can choose to learn how to do crown molding at her party or can learn to tile a backsplash with the tiling kit.

In addition to information about their product line, the Tomboy Tools site has the following:

- Career opportunities
- Hosting a tool party
- Education and tutorials

- Shopping online for the tools
- Donating opportunity for breast cancer

Comprehensive Review

The Tomboy Tools website uses an interactive approach to display their information by combining HTML and Java scripting. The navigation and photo gallery were created using JavaScript, and the videos were uploaded from company servers. Unfortunately, the videos would not play, either producing an error page or buffering without ever completing. A note to the webmaster did not produce a response, and the educational videos are still unavailable.

Tomboy Tools' website highlights their unique products, with high-quality photos and user reviews. Pervasive use of the color pink throughout the site was appropriate and provided cohesiveness among the pages, making it clear that all of the pages are related and are within a hierarchy. Since one of the company's social responsibility initiatives is to "give back" to breast cancer research, the color pink, which has become widely associated with breast cancer awareness, is part of a larger rhetorical strategy. The navigational approach on the site was well thought out and made the site very easy to navigate for all user experience levels (e.g., novice). Overall, the website was engaging and user-friendly.

Evaluation

The following table provides the completed evaluation rubric for TomboyTools.com. In addition, a complete description of the group's findings regarding this website is included.

Table 2. TomboyTools.com Evaluation Rubric

www.tomboytools.com			
Heuristic(Points Available)	Does Not Meet Expectations (10)	Meets Expectations (20)	Exceeds Expectations (30)
Overall Content		20	
Organization		20	
Originality		20	
Functionality	10		
Content/Aesthetics		20	
Engages the User			30
Navigation			30
Credibility			30
Spelling/Grammar		20	
Score	10	100	90
Total Score for Website	200		

Overall Content

- The website contains redundant content appropriate to providing easy navigation. Information is repeated in the heading links, sidebar content link blocks, and graphics. Additionally, content regarding business partners is provided on multiple pages.
- The acronym “DIY” (do it yourself) is used throughout the website, but is left undefined. While this is a rather standard acronym for those familiar with home improvement projects, it could cause confusion to some users who are unfamiliar with the term or who are novices to tools—a part of the company’s target audience. Note that the term “Do It Yourself” is listed in the left-side navigation links on the Education page, but it does not relate “Do It Yourself” to “DIY”.
- The website provides an appropriate amount of content, including information regarding the company’s purpose and product information, as well as instructions on becoming a consultant or hosting a tool party.
- The website engages and informs the user through its use of graphics, font choice and color scheme, and unique phraseology (e.g., empower, inspire, create, opportunity, giving back). All of these items are directly geared toward the target audience—women who want to learn to do home improvement or automotive projects on their own.
- The website includes transitions in its graphic content and within its content links.
- The website contains a logical amount of content for the type of business, purpose, and audience.
- The website includes effective introductions and conclusions for the content sections.
- The website maintains a professional tone through its use of company logo, color scheme, and corporate branding. Professionally written text is used, and the graphics chosen represent the company and its overall mission.

Organization

- The website content is organized, consistent, and logical. Important content is placed in prominent locations that are logical with the overall layout of the website. Consistent terminology and links are used throughout.
- Users are able to navigate through this website intuitively. Links are formatted appropriately to draw attention and indicate their purpose. Top-level headings remain on each page and sidebar links are provided for easy navigation throughout the website.

Originality

- The website content as it pertains to the company and its product and mission appears to be original, including text, media, and graphics. Logos and content from business partners (e.g., Avon) are also provided on the website, which is most likely the standard information these partners provide for cross-posting on other websites.
- Media and graphics were used on the website. While the graphics themselves were appropriate to the website and its intended audience, the links to the videos did not function properly. Therefore, the videos could not be evaluated.

- The website appeared to be created using some type of modified software-provided template. It had a similar look and feel to other websites, but was not identical to others visited.
- Corporate branding and color scheme were used effectively throughout the website.
- The content and message of the website is new and exciting. The website effectively presents this information to its audience by using unique graphics, well-written text, and well-designed website.

Functionality

- None of the videos on this website played. Instead, an error page was displayed explaining that the video was not available. If a video isn't available, then the option to play it should be removed, or the code should be commented out to suppress this feature from user viewing until it is available.
- The option to view product details is not available. An error page is displayed.
- More than 3 video and PDF files were not available. The links to the error page worked properly, but the option to view the information was not available.

Content/Aesthetics

- The site is aesthetically pleasing.
- Educational material is available in text, even though the videos did not work. For example, DIY projects are described in detailed procedures (<http://www.tomboytools.com/education/do-it-yourself/bathroom>).
- On the Education > Videos page, you can sign up for Club Tomboy where you can read blog entries and network with other women who are similarly interested in doing home improvement projects and using Tomboy Tools.
- The media content on the Home page (slideshow) is aesthetically pleasing and appropriate for the intended audience

Engages the User

- The use of the color pink, script-like fonts, and the movement on the slideshow capture the site visitor's attention immediately.
- The variety of links to information and education draw in the novice as well as the expert.
- Everything from the Home page to the Shopping page is inviting and cohesive.

Navigation

- All navigational items worked.
- A variety of navigation was used: button-style navigation at the top, link-style navigation down the side, and in some cases, more navigation was embedded in a page itself (although those links were not immediately apparent).
- At least one team member felt that the text on the first line of the page should match what the navigational link said. For example, the “Join our Team” page said “Create the Opportunity” as the first line. This is not a true issue and seems to be a matter of preference.

Credibility

- Links work correctly, a privacy policy is in place, and company information is provided.
- Subscription and social media links are provided at the bottom of each page and are unobtrusive. Many larger companies participate in social media as a way to build their business.
- The website contains information about the company (including national news video), the credentials of the founders, and all expected legal information.
- Information on corporate structure, corporate events, and social responsibility is provided.
- The website allows the user to place secure orders directly using a credit card.

Spelling/Grammar

- One punctuation error found in the privacy policy (missing comma).
- Missing space in one paragraph on the Contact Us page.
- No spelling errors noted.

MultimediaLearning.org



Figure 3. MultimediaLearning.org

Introduction

The website for Multimedia Learning—a small company comprising owners Dana Bagdasarian, Herschel Sarnoff, and several employees—is rather plain and crowded with links. The company markets prepackaged lesson plans, materials, and multimedia presentations to K-12 educators and school systems. Both founders have worked in the Los Angeles public school system and have used these materials for their own students. Products available from the site include free downloads of short presentations and films (which are archived on YouTube) and DVDs available for purchase, which contain much more material. The list provided on the website's Home page is as follows, highlighting the numbers of items available, rather than enhancing user interest by discussing any exciting lesson plans:

- PowerPoint presentations:
 - 33 U.S. History
 - 25 World History
 - 5 Government
- 4 Image Libraries
- 4 Historic Film Collections, and
- 35 Simulation Games

The interactive simulation games are available to help accelerate student learning. Although the idea is a good one and has apparently been profitable for the company, it is not apparent in the website that they are particularly savvy with multimedia. If the company cannot demonstrate useful multimedia on the website, it stands to reason that multimedia available for purchase will not be of good quality either. The overall poor quality of this site hurts the company's credibility, as well.

Comprehensive Review

Most hyperlinks on this site worked and pointed to a variety of elements, including the following:

- Video
- Free downloads
- Product and company information
- FAQs
- Email and social media for the company

Hyperlinks that did not work included the Frequently Asked Questions link on the Home page and the Lessons on the Free Downloads page. The Lessons links all resulted in "404 Page Not Found" errors.

Links were the limit of the interactivity of this website. Most materials that were available for download had "level 1" interactivity—that is, they were either click-through presentations or short films. This was noted in the free downloads, but there was no indication that purchased items would be any different. For example, nothing on the site indicated that enhanced functionality was available in the purchased DVDs. Interactivity in some of the products includes quizzes (although these are flat files and are meant to be used by the educator) and simulation games, but the latter were not available for download. On the Home page, a slideshow plays in a loop that shows some of the recent material published. Clicking on social media links opens the target page in a new browser window (or tab, depending on your configuration). Links to static material (e.g., a free download) open a download window, as expected.

Evaluation

The following table provides the completed evaluation rubric for MultimediaLearning.org. In addition, a complete description of the group's findings regarding this site is included.

Table 3. MultimediaLearning.org Evaluation Rubric

multimedialearning.org/			
Heuristic(Points Available)	Does Not Meet Expectations (10)	Meets Expectations (20)	Exceeds Expectations (30)
Overall Content	10		
Organization	10		
Originality	10		
Functionality	10		
Content/Aesthetics	10		
Engages the User	10		
Navigation	10		
Credibility	10		
Spelling/Grammar	10		
Score	90	0	0
Total Score for Website	90		

Overall Content

- The site contains education related content that is appropriate for its audience and intended purpose.
- The site design negatively affects the readability and flow of the content. In addition, the site does not follow a logical content/navigational flowchart.
- The site does not engage the user and is very generic in its presentation of material.
- The site is informative; however, this may be lost due to the lack of effective design.
- The site contains a vast amount of content. The amount of content may be appropriate; however, its overall presentation is overwhelming.
- The site content does not work in conjunction with the media included. The graphics included with the content links are confusing. Many of the graphics are reused and are set up as separate links from the corresponding heading links, which may cause confusion since they both navigate to the same page. The overuse of graphics and headings, as well as their organization does not work well for this site.
- The site does not maintain a professional tone. Aside from the main heading, a corporate logo or branding is not used consistently throughout the site. The look and feel of the site is very generic and it does not seem that an extensive amount of thought went into the overall design.
- The site contains redundant content and uses many of the same images in multiple areas. While the intent may be to allow quick recognition by the user, it is somewhat distracting and does not add to the professionalism or credibility of the site. Testimonials are included on both the Home and About Us pages.
- The content does not include an effective metaphor. Users are able to access information by choosing the appropriate link, which is clearly marked with a heading. There is also a graphic associated with an individual link, which can be used to navigate to the content as well. This could be confusing to the user as they may not be sure which link to use. In addition, the graphics associated with the links are not all clear or sized appropriately; therefore, it is more difficult for the user to process the information.

Organization

- The site layout is not organized, consistent, or logical. While the main topic headings are listed horizontally on the top, they are very small compared to the company logo above them. They almost become lost. Subtopic links and graphics are placed vertically down both sides of the site, with several oddly large bullets and the frequently asked questions prominently displayed in the middle and a large section of testimonials below that. This is not consistent with the design of more effective sites, nor is it logical for ease of use and comprehension.
- Objects, actions, and options are visible; however, the inconsistent font size and odd arrangement is distracting.
- The site does not effectively use white space, icons and graphics, headings and text to convey its message. There is very little white space on most pages, and graphics, headings, and text boxes are jumbled, making it difficult to discern what page and content are being displayed.
- Information is not logically presented or appropriately chunked.

Originality

- The overall site content and that of the PowerPoint presentations and games seem to be original. Graphics used throughout the site and in the presentations are either stock, open source photographs or images. These are not original and there were no references to the sources.
- Graphics were used throughout the site. Media, in the form of videos, were available as product downloads for purchase on the site. Videos were not, however, included as multimedia elements to enhance the design and effectiveness of the site.
- The site's appearance is consistent with the use of standard software-provided website templates.
- Aside from a generic company logo used in the main heading, there is no use of corporate branding.

Functionality

- The video downloads worked appropriately and played as they should. To exit from the video, the user simply clicks out of the screen and is returns to the downloaded page.
- The placement of videos on the site was listed properly within their own section in the "Free Downloads" category.
- All video links functioned as expected.
- Some anchor links did not function as expected. For example, an anchor link's title did not match the title in another section.
- Three of the links to the sample pages do not open in a new browser window as the others do. The back button on the browser must be used to return to the previous page; otherwise, the user may close out of the entire website.

Content/Aesthetics

- The media content in the site is not aesthetically pleasing and has an unprofessional appearance. It has an amateur design with too much content and utilizes the entire width of the screen.
- The font is very small on the screen, but it does scale appropriately when a user zooms in.
- The content is overwhelming and is poorly organized.
- The user must do a lot of scrolling and reading to try to find information. It is unlikely that a user will stay and do the work necessary to read all of the information unless that user is extremely invested in buying these products. .

Engages the User

- The media employed in the site is not attractive, and it does not draw the user's attention. The site is too cluttered which disengages the user from exploration and experimentation with the content.
- The only media that plays is a rapidly moving slideshow on the Home page. This is annoying, at the very least, and adds nothing to any engaging qualities.
- The site does not appear to have been created with any forethought to the needs of the audience, using any kind of storyboard or wireframe to map out the logical actions.

Navigation

- The site used navigational links in a horizontal format above the content. This site did not use buttons, icons, or labels as navigational items.
- Navigation was simple to follow. It was created in HTML with no Java scripting or Flash, and there were no sub-navigational items.
- Some navigation was not intuitive. For example, http://multimedialearning.org/presentations/202_FertileCrescent.php. If you are on that page and select any item under “Multimedia Learning LLC PowerPoint Presentations”, you will simply be scrolled further down the page. It is hard to know if anything important happened. It should take you to a new page with a listing of, for example, Government products.
- Some items appear with underlined text, which indicates a convention used for hyperlinks. Naturally, we tried to click these and found them to be text only.
- Simple frames and some table frames are used, but no graphical elements other than these—plus headings—are used to highlight various sections and important links.
- Two navigational items caused confusion. The “Links” navigational item should be worded as “Resources” or “Additional Resources”. Using “Resources” is more descriptive for the user. The word “link” does not describe the type of links used in that section. Also, the “Free Image Archive” navigational item breaks off at the end and makes the title look like two items instead of one. Currently, it shows “Free Image” on one line, then “Archive” on the next line.

Credibility

- The “Follow Us” section was obtrusive and oversized.
- The “Frequently Asked Questions” link was inactive (center of page).
- The selection of fonts, typeface treatments, organization, and navigation seems amateur. It lacks ethos and a professional tone.
- The company did offer multimedia: CD/DVD/Internet download of presentations, some with embedded video, a YouTube channel of historical films, and interactive games (though they could not be accessed for free).
- Company offers free samples and downloads prior to ordering (apparently so your disappointment can be avoided).
- The presentations are informative, but very poorly presented.
- Link to one of the stories about multimedia learning took me to the very un-credible Dr. Mercola site. The other navigated to an inferior print-to-PDF of an article from the 2006 “Daily Breeze” that featured an interview with the founders. According to the company information in the article, their clients are mostly companies that produce educational catalogs (e.g., for homeschoolers). The link embedded at the bottom of the article did not navigate to the archived article.
- Some of the text on the Specials page did not make sense (23 and 19 U.S. History titles and 11 World History titles bundled for the High School classroom).
- Blog links to a simple WordPress page that has recent posts, mostly selling their goods.
- Payment is only through PayPal. Most companies making as much money as they claim in the Daily Breeze article can afford to accept various forms of payment.
- One reviewer found a large discrepancy between the advertised price of a product and the price when the product is added to the shopping cart in PayPal.
- Copyright symbol on each page.
- Both of the authors have good credentials, a bio, and a contact address (though it is at Gmail and not at their own domain).

Spelling/Grammar

- No period should be used in the heading text.
- On the MML Product page, there were three punctuation errors, and trademark symbols for “PowerPoint” were used inconsistently.
- No spelling errors noted.

Summary of Results

After a thorough evaluation, we found the MyEyeDr. site to be superior in every area. The scores for the three sites are compared in the following chart:

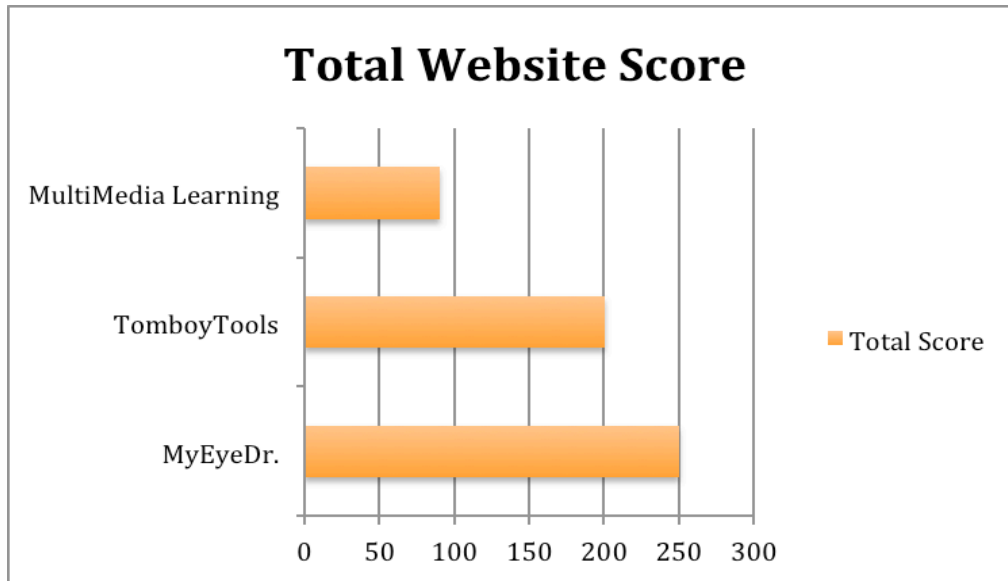


Figure 4. Total Score Comparisons

The MyEyeDr. site used well researched methods to communicate with users. It incorporated a metaphor and had a clear flow to the navigation. It is possible that the designer used storyboards to plan the Flash animation for the site, as well as flowcharts to map out the structure. Storyboarding would help the designer further understand how and why a user might use this site, therefore enhancing the ethos of the company. Pathways through the site are complex and varied, and animation indicates movement in the picture of people on the main page. Animation also provides the feeling of a brochure being folded or unfolded as the user clicks through the pages of the site.

Table 4. Summary of Scores per Heuristic

Heuristic	MyEyeDr	Tomboy Tools	Multimedia Learning
Overall Content	30	20	10
Organization	30	20	10
Originality	30	20	10
Functionality	20	10	10
Content/Aesthetics	30	20	10
Engages the User	30	30	10
Navigation	20	30	10
Credibility	30	30	10
Spelling/Grammar	30	20	10
Total Score	250	200	90

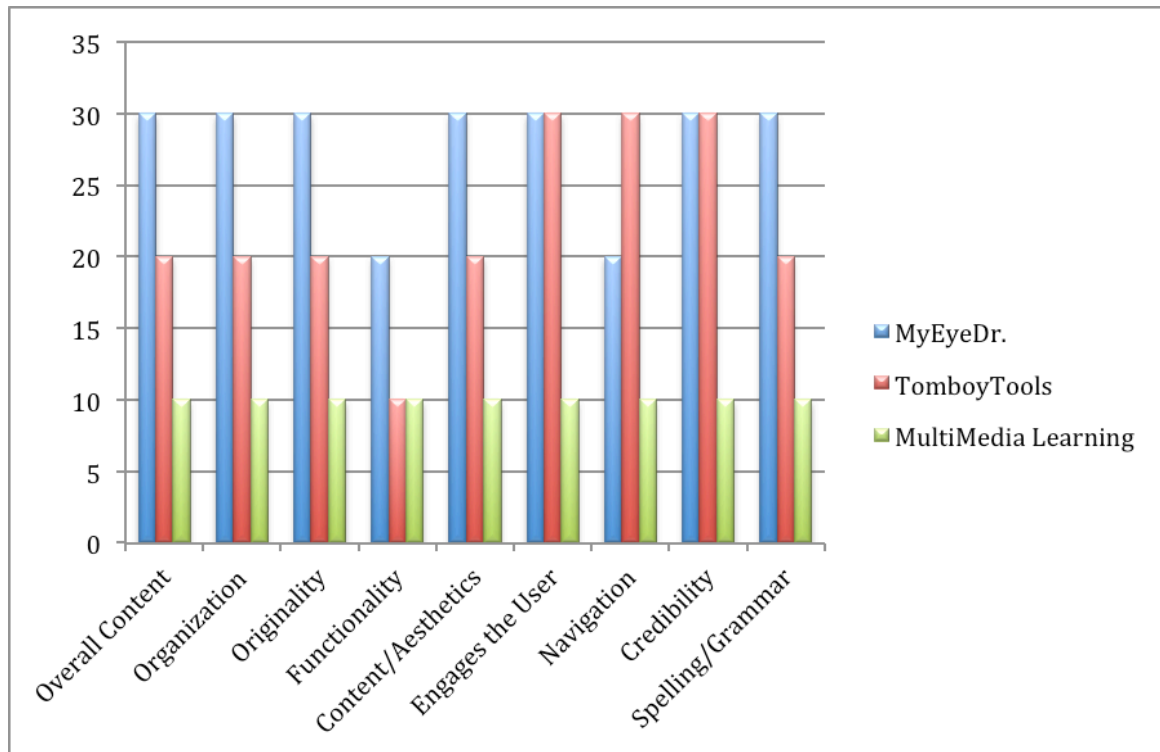


Figure 5. Comparison of Scores per Heuristic

Summary

As we discovered in our research, even the use of the term “multimedia” can be problematic if a site does not deliver what a user might expect in relation to that term—particularly if “multimedia” is part of the company name. The use of a metaphor or theme enhanced the ethos and engaging qualities of two of the sites, while the lack of these “best practices” hurt the score for the third. Of the three sites evaluated, we noted the following:

- MyEyeDr.com was by far the best example of multimedia, as illustrated in Figure 5 and Table 4. Through the use of a clear navigational flow, well incorporated metaphor, and appropriate amount and type of content, this site was able to effectively communicate its intended message to the user.
- TomboyTools.com did not use a particularly unique delivery approach or metaphor, but it was still a professional and well organized site. The rather average multimedia types (e.g., slideshow, e-commerce ordering) worked for the purpose intended—to engage female customers and to encourage purchases of the tools.
- MultimediaLearning.org, as clearly indicated by the evaluation results, did not effectively use multimedia on the site. Although multimedia products were available to purchase (or as free samples to download) and a small slideshow was playing on the home page, this site completely missed the mark in almost all areas—failing to engage the user, communicate an effective message, or build trust.

These observations, coupled with our evaluation results, clearly illustrate the complexity of multimedia design. Although two sites illustrated the extremes of completely hitting or missing “the mark” as effective uses of multimedia, a gray area still remains, as in the case of the TomboyTools.com site. It may not have been the site with the most pizzazz, but it achieved its apparent goals.

Our critiquing and evaluation skills have greatly improved through the process of selecting the sites to be evaluated, creating the evaluation criteria, and evaluating each site. By studying each site in detail, the differences between a well thought out and executed multimedia site, an average multimedia site, and a poorly executed multimedia site have become clearer. In the process, we have been able to identify effective conventions for future use and specific pitfalls to avoid in future multimedia projects.

Appendix A: Evaluation Rubric

Evaluation Rubric

Heuristic	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Overall Content	<ul style="list-style-type: none"> * Inappropriate content for audience and topic * Contains broken links * Acronyms are not defined * Ineffective readability and no flow * Citations are not used for reference material * Site does not follow an appropriate content flowchart * Site does not include introductions and conclusions * Site does not include transitions * Site does not engage or inform user * Site contains too much or too little content * Site content does not work in conjunction with media * Site content does not maintain a professional tone * Site content is redundant * No use or ineffective use of metaphor 	<ul style="list-style-type: none"> * Appropriate content for audience and topic * Does not contain broken links * Acronyms are defined * Effective readability and flow * Citations for referenced material are included * Site follows an appropriate content flowchart * Site includes introductions and conclusions * Site includes transitions * Site engages and informs user * Site contains a logical amount of content * Site content maintains a professional tone * Site content is not redundant 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * Site content works in conjunction with media * Effective use of metaphor * Site content goes above and beyond expectations to “wow” the user

Evaluation Rubric

Heuristic	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Organization	<ul style="list-style-type: none"> * Site layout is not organized, not consistent, and not logical * Site does not use a hierarchical structure * Use of site elements (i.e., non-Home page) of the site and the site overall are not intuitive to the user * Site does not minimize the user's cognitive load by making objects, actions, and options easily visible * Site overwhelms the user with information * Site ineffectively uses white space, icons and graphics, headings and text * Information is not chunked or presented logically 	<ul style="list-style-type: none"> * Site layout is organized, consistent, and logical * Users are able to intuit other elements (non-Home page) of the site and how to use the site overall * Site minimizes the user's cognitive load by making objects, actions, and options easily visible * Site effectively uses white space, icons and graphics, headings and text * Site does not overwhelm the user with information * Site effectively uses white space, icons and graphics, headings and text * Information is chunked and presented logically 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * Site uses hierarchical structure * Use of site elements (i.e., non-Home page) and the site overall are intuitive to the user * Site organization goes above and beyond expectations to "wow" the user and facilitate ease of use

Evaluation Rubric

Heuristic	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Originality	<ul style="list-style-type: none"> * Site plagiarizes content, media, or graphics * Limited or no use of media or graphics * Exclusive use of software-provided templates * No use of corporate branding 	<ul style="list-style-type: none"> * Site does not plagiarize content, media, or graphics * Use of media or graphics * Minimal use of software-provided templates * Use of corporate branding 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * No use of software-provided templates * Exclusive use of original content, media, and graphics * Site presents content/message in a new and exciting way * Site layout or design is new and original * Site goes above and beyond expectations to “wow” the user
Functionality	<ul style="list-style-type: none"> * Media does not function properly * Site contains more than three broken hyperlinks * No exit option is available * Icons or clear labels are not used to indicate navigation * Intended navigation is not clear * More than three required files are not located on the server 	<ul style="list-style-type: none"> * Media functions properly * Site contains fewer than three broken hyperlinks * At least one exit option is available for a media element (skip intro, close screen button, etc.) * Icons or clear labels are used to indicate navigation * Intended navigation is clear * Fewer than three required files are not located on the server 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * All media functions properly * All hyperlinks work properly * Exit options are available on all appropriate pages or for all media elements * All required files are located on the server

Evaluation Rubric

Heuristic	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Content/Aesthetics	<ul style="list-style-type: none"> * Site appearance is low quality or unprofessional * Site quality or appearance distracts the user * Site content is not appropriate for the audience and topic * Graphics and words are not used effectively to convey meaning * Site is cluttered or seems confusing for users * Site uses confusing terminology and jargon 	<ul style="list-style-type: none"> * Site appearance is good quality and professional * Site quality or appearance does not distract the user * Site content is appropriate for the audience and topic * Graphics and words are used effectively to convey meaning * Site design is simple and user friendly * Site uses easy to understand terminology * Site does not use jargon 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * Site appearance is high-quality, consistent, and intuitive * All media elements are logical and user friendly
Engages the User	<ul style="list-style-type: none"> * Site does not draw or hold the user's interest * Multimedia elements do not draw the user in and do not provide interest * Layout, pictures, text, icons, and buttons do not engage the user 	<ul style="list-style-type: none"> * Site draws or holds the user's interest * Multimedia elements draw the user in and provide interest * Layout, pictures, text, icons, and buttons engage the user 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * Site is presented as such that the user wants to return * Site engages the user with unique content

Evaluation Rubric

Heuristic	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Navigation	<ul style="list-style-type: none"> * Buttons or navigational tools are not used or are confusing * Contains more than three non-functional buttons and/or navigational tools * Users experience more than three difficulties when navigating through the site * Users are not able to progress through the site in a logical path 	<ul style="list-style-type: none"> * Buttons or navigational tools are used * Buttons or navigational tools are not confusing * Contains fewer than three non-functional buttons and/or navigational tools * Users experience fewer than three difficulties when navigating through the site * Users are able to progress through the site in a logical path to find information 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * All buttons and navigational tools work properly * Users experience no difficulties when navigating through the site * Site goes above and beyond expectations to “wow” the user
Credibility	<ul style="list-style-type: none"> * Site has poorly researched information * Site lacks consistency and structure * Site’s tone lacks authority and professionalism * Site lacks ethos * Site does not appear to be believable or trustworthy * Site does not contain contact information for the company * Site does not contain legal entity information 	<ul style="list-style-type: none"> * Content demonstrates thought and adequate research * Site uses consistency and structure * Site exhibits an authoritative, credible, and professional tone * Ethos is achieved through an effective transfer of knowledge in the content * Site is believable and trustworthy * Site includes contact information for the company * Site contains legal entity information 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * Site contains references to background research or further reading, if appropriate * Company behind the website (design and product, if applicable) are established and well known

Evaluation Rubric

Heuristic	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Spelling and Grammar	<ul style="list-style-type: none"> * Contains more than three typographical errors * Incorrect grammar is used throughout * Poor sentence structure * Incorrect punctuation marks * Verbose, disorganized, or information that is difficult to read and follow 	<ul style="list-style-type: none"> * Contains fewer than three typographical errors * Grammar is correct in most instances (fewer than three mistakes) * Sentence structures are varied * Punctuation is used correctly * Concise, readable information 	<ul style="list-style-type: none"> * Each criterion in the Meets Expectations category is met * Demonstrates authority and credibility in sentence structure, use of language, appropriate vocabulary for the audience, and flawless execution of grammatical rules