UMDSurvival

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Abstract

Every freshman that comes to college obtains some sort of booklet or pamphlet claiming to be the student’s handbook to college by some author. This is usually full of common sense and erroneous, dated information that is never found useful. Our solution is UMDSurvival.com, a student’s college survival guide created by students for students. We have implemented this idea by way of a simple, highly usable forum where students can freely post information on a variety of topics such as tips about campus (school policy, unknown financial aid, free parking etc), class reviews, student events/parties and other campus information.

Introduction

Problem

The average college student in 2009 looks to his or her peers not only for friendship and camaraderie, but often also for guidance and criticism regarding every aspect of life. When faced with a decision, big or small, people tend to seek out the advice of others who may have faced a similar situation before. The Internet is riddled with websites offering reviews, advice, ratings, and assessments of every kind, and the sheer volume of information makes it hard to tell what you can trust. Looking for specific information, like which classes to take next semester or where to get something to eat tonight, would be made much easier if there were one location that offered a way to keep track of all your options, and hear different opinions about what's good and what's bad.

UMDSurvival is our vision to solve the problems of information overload, disorganization, and unreliability. By organizing and classifying the posts on the website, as well as offering efficient search features, UMDSurvival makes it easy to find information. In addition, all the users of UMDSurvival have a Karma rating that can be increased or decreased by any other user, encouraging reliability and relevance, and discouraging deception and spam.

Previous Work

UMDSurvival was an idea based on meshing our new ideas with already existing products on the web. In order to maximize the effectiveness of such a website, specifically one based on social networking, we looked at similar successful products on the web, and various academic papers concerning online communities and message boards.

The ever increasing stressful nature of college has created the necessity for websites similar to UMDSurvival. College students frequently seek advice from their fellow classmates and friends to help themselves survive college life. Sites such as Free Stuff @ Maryland, College Confidential, and Rate My Professors all seek to serve its community of college students by providing a venue for users with similar interests to help one another. In some ways, these sites are similar to UMDSurvival, but do not entirely overlap.
Free Stuff @ Maryland provides information about free events at the University of Maryland. This is very similar to one of the goals of UMDSurvival, which is to provide information about events at the University of Maryland. UMDSurvival is different in that it will present information about any event - free or not. The level of approval that Free Stuff @ Maryland requires is also higher than UMDSurvival, so it allows events to be posted much more quickly. In addition, UMDSurvival allows users to comment on events, which is not supported by Free Stuff @ Maryland.

College Confidential is a website that markets itself as a community discussing the college admissions process. This is similar to UMDSurvival in that it is a discussion-based site with information about specific colleges. UMDSurvival is a bit different, however, as most of its content is created by current students. Also, College Confidential's focus is on students applying to college, whereas UMDSurvival is primarily focused on students already in college, though the information presented would be helpful for prospective students as well.

Rate My Professors is similar to what UMDSurvival presents in a few ways. The site is based on former/current students sharing information about professors that they have come across. The content is entirely built off of user contributions, and students who are trying to share their knowledge about particular professors. This kind of mindset will be important for the growth of UMDSurvival. The two sites are different in that UMDSurvival will explore entirely different parts of college, but they do have their similarities.

Despite the relative newness of social interaction on the internet, there is an abundance of information regarding this topic. We looked at several academic papers to help us understand how online communities develop and how social interactions are promoted by message boards.

*Online discussion processes* studies the flow of online discussions, and examines how earlier messages affected later messages along five dimensions: (1) evaluations (agreement, disagreement, or unresponsive actions); (2) knowledge content (contribution, repetition, or null content); (3) social cues (positive, negative, or none); (4) personal information (number of visits); and (5) elicitation (eliciting response or not). This information will help us moderate the forum to allow thread flow to continue.

*Anonymity and Online Community: Identity Matters* discusses the value of creating member profiles and disallowing anonymous posting in internet communities. Focusing on the advantages of a website "knowing" its members, it recommends a number of strategies to build a better online community. Since we were considering some form of anonymous posting, it helped our decisions regarding registration and membership.

*Attracting student participation in asynchronous online discussions* reports on a qualitative study examining the facilitation techniques used by student facilitators to attract their course mates to participate in online discussions. They found that to have a student facilitator be successful attracting other students to participate, the discussion threads had to have a depth of six or more levels of students’ postings. They then examined in detail and reported the facilitation techniques that were exhibited by the student facilitators, and results showed that seven facilitation
techniques were employed the most frequently used were Socratic questioning and sharing personal opinions or experiences.

*Developing a Comprehensive Metric for Assessing Discussion Board Effectiveness* details the development of a reliable metric to assess quality and usefulness within a given message board. Several variables were included in this metric, including thread, location of message within thread, response time from previous message, number of times message was read, and number of words. A careful examination of these variables has enabled UMDSurvival to provide its users with more helpful information about content; that is, the design of the site should make visible and available the information that this article describes as useful for evaluating posts on the message board.

*Forget Not the Forums* discusses the significance of online forums to information services. Forums offer a quick critical way to evaluate issues and concerns and help a board determine the usefulness of information. Tips on searching and using online forums are offered, along with information on three forum search engines.

*Managing Online Forums* is a book which presents several things to think about and consider when developing a forum online. These include things such as picking a good name and domain name, choosing the right software, deciding on user options (avatars and private messaging), involving users and keeping the site interesting, and so on. This book covers a variety of topics that we have taken under consideration to ensure that the forums will be successful and fulfill the needs of potential users.

*When groups decide to use asynchronous online discussions* was about a study which gathered 55 students and employed both student interviews and content analysis methods to gather their data. They found that the factors affecting the group decision to use online discussion forums are (1) successful or unsuccessful experiences during the first trial, (2) perceived affordances of CMC tools, and (3) the interplay between the nature of collaborative tasks and perceived efficiency.

*Toward a Community-Oriented Design of Internet Platforms* discusses the different types of communities that develop online and the technologies that should be employed for each type of community. It claims that as online communities become more prominent, focusing the technology on the specific type of community present. UMDSurvival will cater to a very specific type of community, so the advice offered here helped us with the design of the site. Using Community Visualization to Stimulate Participation in Online Communities is a study which introduces a commonly known problem with online communities, called the "cold-start" problem. Although some online communities manage to attract users and grow enormously, others never reach the "critical mass" of active users needed to ensure enough new materials and attract users to revisit the community. The researchers propose that visualization in the online community would lead to more participation from the members of the community, and hence would lead to more contributions for the rest of the group.

After conducting a careful study of similar successful products, as well as looking at academic papers relating to internet communities and social networks, UMDSurvival should be successful.
Presentation of Design

The goal of this project was to create a site where students at the University of Maryland can share information about a number of topics. We decided to model our site after a forum, which is specifically designed to allow many users to share information with each other. Since some users would already be familiar with forums, we hoped that it would be easy for users to learn to use the site.

Consequently, our goal became to make a highly user-friendly, Maryland-themed forum. We created several low-fidelity prototypes to see how we could improve the usability of an existing forum system. Two of these prototypes are presented below following the transition diagram that describes the entire site. In the end, we used some aspects of each prototype to create our final product. Only one prototype was created for the registration process.

Transition Diagram

This image shows the basic transition diagram for the UMDSurvival site. The main page allows access to nearly every other page, letting users log in, register for the site, look at a forum, and in prototype 1 view a thread or create a new post. The forum page shows a subset of the threads in the forum and allows a user to go to a thread or create a new thread. The thread view page allows people to edit their responses or post new response. When creating a page, users may wind up at the date/time picker if they are creating a thread about a new event.
Figure 1 - Home

This is the home page for UMDSurvival. All tasks begin at this page. For tasks that require logging in (tasks 1 and 6), there is a login link in the upper right that brings users to Figure 2, or a login box on the bottom of the page. There is a search box and button in the upper right of the page, with an option for advanced search. The left side of the page contains the "Events Quick Look," which displays events that are coming up so that users can quickly find them. The right side of the page has a tabbed interface that lets users quickly see any of the site's major forums. They can change forums using the tabs, view a topic (see Figure 7) by clicking a topic in the right, or create a new topic (see Figure 3) by clicking the new post button.
Figure 2 - Login

This is the login page for UMDSurvival. The search page and logo are repeated from the main page, and a fairly uninteresting login page is shown. Users can specify their username and password and click log in. They are also presented with the option to automatically log themselves in and to hide the fact that they are online.
Figure 3 - New post

This is the new post page for UMDSurvival. Most users would see a narrower version of this page, in which case the text box in the middle would be narrower, but the basic layout would be the same. The header is the same as always. At the top, the name of the thread being posted in is listed so users know where they are posting. They can enter the subject of their post, and using the text box, they can create a long post. If they are posting in the events forum, they may also specify a start and end date/time (see Figure 4), a location, and an event host. Otherwise, these fields are not displayed. Users may click preview to see what their new post will look like or post to create their new post immediately.
Figure 4 - Date/Time Picker

This page allows a user to specify a date and time for their events. It is opened as a pop-up window whenever a user clicks on the event start or event end field. The user can enter the time at the bottom and then click a day to set their event time.

Figure 5 - Register Page 1

This is the first page that a user sees after clicking the register link in the upper right corner of most pages. This page explains a very short license for users to agree to. When users click the "I agree to these terms" button, they are sent to Figure 6.
This is the final page a user sees when registering. It prompts them for a username, password, email address, and it displays a captcha to verify that all the users are real people. After registering, a user is returned to his or her previous page.
Figure 7 - Thread View

This is the view of a thread or topic in the forum. After someone makes a new post in a forum, this page is created. Posts that are in reply to this thread are displayed below the first post. By clicking the reply button at the top and bottom of the page, a user will be brought to Figure 3 to reply to the thread.
This is a Frequently Asked Question (FAQ) page, which answers possible questions a user or potential user may have about the site. Clicking on a question near the top of the page will cause the page to jump to the appropriate answer to the question at hand. A user may access this page from any part of the site, as it is located near the top of the page in the header.

**Tutorials**

The goal of the project was to create a site that required no help. Recognizing that this was not an achievable goal, we decided that for our usability test we would use the testers as a source of help and we would base our help documents on the results of the test. The problems people had during the usability test were generally not those that required a help document, but rather those that required changes in the interface design. In the end, we used the help that came with the forum software that we modified, which explained the basic operation of the forum and what it was capable of.
Development Process

Prototype 1

Figure 9 - Prototype 1 Home

This screen shows the home page of UMDSurvival, which is the page that would be loaded when a user first visited the site. On the top, there are links for a user to sign in (so that he or she can post), register as a user (bringing him or her to Figure 1.5), contact help, and learn more about UMDSurvival. There is also a search bar to help users look for specific posts or specific types of information. The left side features a "quick look" panel that allows users to immediately see what is happening on and around campus in the near future. Users can filter this left side to see different types of events, like those featuring free food or parties, and they can select a time-frame to look for events on a particular date. This provides a quick way to browse for information without having to go through several pages. The links in the quick look section go to pages such as Figure 1.3. Finally, the main section of the page lists the different categories the site offers so users can find the forum they are interested in. By clicking these categories, a user can move to a page like Figure 1.2.
**Figure 10 - Prototype 1 Forum**

This figure is the view of a particular forum. The top and left parts of the page are the same as in Figure 1.1, except that on the left side instead of showing events in the near future, it shows posts that were made at certain points in time, giving a quick look at recent posts and making it easy for users to find posts that they have previously seen. The main section of the page has the various threads that make up the forum, easily sortable by clicking the tops of the columns, making it easier for users to find threads they are aware of or determine which threads they have not yet viewed. Tabs at the top allow users to quickly switch between forums without going back to the home page. At the bottom, users can filter posts by common criteria such as unread, highly rated, and threads the user has posted in. Users can create a new thread in the active forum or another forum by clicking the Create a Thread button, which moves them to Figure 1.4.
Figure 11 - Prototype 1 Thread

This figure is the view of a thread in the forum. At the top, there is a link to return to the forum view so that users can easily reverse their actions. Posts are then displayed with information about the poster and time. At the bottom of the page, users can add a response post without having to go through another page. This allows users to quickly add new posts to threads. If there were too many posts on the page, then the text that says page 1 of 1 would provide links to other pages of responses to the thread.
Figure 12 - Prototype 1 Add New Thread

This figure is a page that allows a user to create a new thread. They may name their thread, and choose which forum it goes in (though the forum they were looking at when they hit the Create a Thread button will be selected by default). If their thread discusses an event, they may put a date, which will be used to place events in the quick look section of the home page. Finally, a rich text box allows users to create attractive text for their post. Once a user hits post, he or she will move to the forum view (Figure 1.2) to see the new thread.
Figure 13 - Prototype 1 Registration Rules

This page shows the rules to a new forum user. The tag-cloud in the middle would be replaced by the forum rules and disclaimers. When a user clicks I Agree, he or she is sent to Figure 1.6.

Figure 14 - Prototype 1 Sign Up

This form collects user information for signup. Users are presented with simple text fields to choose a user name, password, and enter their email address. When they click Complete Registration, they will be returned to whatever page they were previously on to resume viewing with as little interruption as possible.
Prototype 2

Figure 15 - Prototype 2 Home

This is the home screen, users are presented with upon reaching the site. The top of the page provides links to the main forum (fig 2.2), a help page for those new to forums, a 'contact us' page for those trying to contact the site administrators and a search bar is provided for easier searching of a specific thread or topic. The front page provides a list of the most popular threads on the site, this list of threads can be filtered and by topic through the search filter on the right, as well as by the tabs on the left which provide the user to view newly created threads and the most recently popular.
Figure 16 - Prototype 2 Forum

This figure is a view of the main forum selection page. The forum view provides links to the different thread topics associated with the website. It also includes a link to the forum rules, which provides users a general view of how we expect forum-conduct to be held, and also our liability clause.
Figure 17 - Prototype 2 Thread

This figure is the view of a thread in the forum. Each thread has a rating scale on the top right for users to provide input on how useful they found the thread. On the left is a presentation of the users Avatar, as well a Tip meter, which fills as people rate the user on how useful their posts are. The bottom of the page is a quick reply bar, with basic text formatting for easy posting.
Figure 18 - Prototype 2 Add New Thread

This figure is a view of new Thread page. Users are given basic text formatting and a large enough text box to write freely. At the bottom of the page users are given an option to preview their post, to make sure their formatting is to their before they officially post it.

Prototype 1 Pros and Cons

Home: This prototype has a great feature in having an "Events" quick look. Having this on the side of the screen allows users to easily find events right away without going into the forums. Also by integrating this on the side, it is not in the way of the main content on the forum, but still at an accessible location on the screen. One thing to consider is the inability to see what's
actually been posted in a forum without entering it, as there is no quick-look style view. The page does have a contact link but no help, which is something to reconsider.

**Forum:** This forum view is something to seriously consider. By using a tabbed system, users can easily switch between forums without going back to a main forum page. The "what's hot" bar on the left is a bit redundant, so that may be phased out. The filter options will probably be things like "unread," "highly rated (by me)," "I posted in," which could be useful and make it more user-friendly. This view will also allow sorting by columns, which would help users as well.

**Thread:** The thread view has the essential elements, and most importantly has a quick post feature. Instead of having to go to a separate "Post reply" page, users can look at a thread, type up a post with markup, and respond appropriately. However there is a lack of a rating system, so that is something to consider adding.

**Create New Thread:** There were some very good elements in this design. It had a drop-down menu for choosing where this new thread would be posted. And if the user decided to post this to the "Events" forum, a user would select from a calendar and choose a specific date for that event. It has a markup section, which is also essential.

**Registration Rules:** This would be a pretty basic page, and this contains the essential elements. The rules are displayed in full in the center of the screen, with a scroll bar to go through all the rules. Having this page protects the creators of the site, and lets the users know what they are getting into by entering the site.

**Registration Sign-Ups:** The sign-up page is fairly self-explanatory. To help users along the process, there are short instructions placed before the text boxes to ensure users do not have a problem entering the appropriate information. The text boxes also initially start out with text that succinctly describes what needs to be entered into that box by a user.

**Prototype 2 Pros and Cons**

**Home:** There were a few things to consider pursuing and implementing in this prototype of the home page. The side tabs feature do allow less information to be displayed at once on a page, yet allow a user to easily access different information. That way users are not overwhelmed by the information on the page. In general the tabbing concept is definitely something to keep under consideration. However the link to the forums are a bit small and other forums are not easily accessible. It is just not visible as the other important features on the page, so that is something that would have to be changed. Additionally, a "Help" section is available, but it may be wise to consolidate the information onto the "About Us" page.

**Forum:** This view is a straight forward forum view, where users are able to see forum sections and subsections. The layout is simple and self explanatory. However there is a strong possibility that such a page would not be necessary, as the home page may act as the forum display, thereby making a separate forum view unnecessary.
Thread: The thread view has good elements that we may eventually want to have in our final version. Having a "tip meter" and rating system makes users feel valued and makes it obvious which users are more "reliable" or "authoritative." An immediate advantage to having this kind of system is that it encourages users to not only make posts, but quality ones. This also deals with the problem of "bad threads," as they will be rated low and then ignored. Instead of having to separate the good content from the bad, this kind of feature will leave that up to the users themselves.

Create New Thread: This create new thread has the necessary components, such as choosing a title, markup, and a large text box for typing in content. However there is no ability to choose where this topic would be posted. However, this could possibly be a default screen if a user is trying to post from within a certain sub-forum.

Discussion of merging the prototypes into one model

Both prototype designs contributed useful and effective components to our overall design plan. In our future implementation of the interface, we plan to incorporate elements of both prototypes, while leaving out others.

First, we found the idea of a tabbed interface to be very appealing. Tabs allow a user to quickly navigate from place to place within the same level (e.g., from forum to forum) without the obligation to return to an index page and select their destination. This interface not only saves clicks, it also reduces short-term memory load (what section am I in? what other sections are there?).

Displaying a tabbed view of the UMDSurvival forums directly on the homepage is one design element that we discussed a great deal. It would be expedient and informative to see so much of the site's content (thread titles, thread starters, number of comments, even a text preview) on the homepage. The tabs in this type of interface would include the forum-selection tabs from Figure 1.2 as well as the "Hot Posts", "Top Posts", and "New Posts" tabs from Figure 2.1. This design allows several viewing options to be presented to the user in a compact and immediate manner. Such a design would also eliminate the need for a separate page that just lists the forums, as in Figure 2.2.

The Quick Look event finder from Figure 1.1 is another extremely useful and effective component. Consider an advanced user who is already familiar with the site and the fact that one of its affordances is a detailed calendar of events taking place around campus. Such a user would have "finding upcoming events" as an important and often-performed task. The Quick Look event finder makes it extremely easy to perform such a task: it's located on the homepage, in a conspicuous place, and it allows an advanced user to see a quick overview of events sorted by time. If the user wants to see a list of events taking place next week, for instance, he or she just has to visit the homepage and click on "Next Week" within the event finder. The list of events for "Today" is pre-expanded by default, saving a click in the most common case.

Finally, the idea of a rating system to track the quality of a user's posts is an excellent feature that relates to several key tasks. Finding specific information often involves choosing from a list of
many posts, each of which might contain the information being sought, so a system that differentiates posters who post reliable information from posters who post less useful information would make the searcher's decision easier. A rating system also encourages users to perform the task of "posting new information", since having more posts to one's name allows one to collect more good ratings. The system is self-governing because just posting more information isn't good enough to raise a poster's rating; it has to be reliable and useful information that others will rate highly.

Usability Test

For our usability test, we invited people through an Events page on the social-networking website Facebook to the AV Williams Building TA room, where we presented each participant with a laptop and a task list to complete. Participants were eager to provide feedback and were intrigued by our website's goal.

Tasks

We had the participants complete a series of tasks that users performed. Some participants performed several tasks in a row.

The pre-test questionnaire as well as the post-test questionnaires for the following tasks are attached to this report as an appendix.

1. Post an event in the forums and verify its post

A user must post an event in the forums and verify that it was posted correctly. Generally, the user began by visiting the main page (Figure 1) and logging in (Figure 2). Then, he or she would click the New Topic button on the right and proceed to the new post page (Figure 3). After posting the event, he or she would return to the main page to make sure it appeared on the left.

2. Register for the site

A user must sign up to use the site. Generally, the user began by visiting the main page and clicking the register link. They would then proceed to the two registration pages (Figure 5 and 6) before returning to the home page.

3. Find a good class to take next semester

A user must find a class that he or she will enjoy taking for the next semester. Most users started at the main page before proceeding to one or more thread view pages (Figure 7) to find a class that meets their specifications.

4. Find information about a free food event for tomorrow

In this task, a user has to find a free food even which happens tomorrow, and find specific information on it. Since most users start at the home page (Figure 1), they will likely look at the
events quick look, or click on either the "Events" or "Everything Else" tab, and accessing the appropriate sub-forum.

5. Look for help information pertaining to using the site

With this task, the user must look for help information pertaining to using the site. The page in question is the FAQ page (Figure 8) and is accessible from anywhere on the site. The link is located at the top of the page in the banner and is named "FAQ."

6. Give feedback on a thread creator

This tasks calls for the user to provide feedback to the thread creator, by replying to a thread. This is done by looking for a thread from the home page (Figure 1) by navigating through the tabs and looking at topics. After clicking on the specific topic, a user will be in the thread view (Figure 7). There, a user can give feedback by replying to the thread and creating a new post (Figure 3).

Participants

Participant #1

Participant #1 was a 20 year old female Senior who lived on campus. She has a above average knowledge of computers spending 31+ hours/week on the internet, and was familiar with Internet forums currently being a member of 2 said forums. Furthermore she has organized and promoted for events for student clubs and organizations.

This participant was tasked with replying to a post on the forum. She did not find navigating through the site too difficult due to her prior experience with other forums. Upon reaching a post that she felt a need to reply to she approached some difficulty when typing out her reply. When clicking one of the text formatting buttons instead of formatting the text automatically it provides code(e.g. [b][/b]). Where she exclaimed later "I was just confused on why codes came up in my post". She found the site overall easy to use and there were clear indications on what to do when one wants to reply to a post.

Upon being asked whether she would use the website in the future and for what reasons, she replied that she would especially when looking for Professor reviews and events related to UMD. She felt if there were events about anything un-related to UMD(e.g. House party in Baltimore) this would put her off using the website.

Participant #2

Participant #2 was a 23 year old male Super-senior who lives on campus. He has expert knowledge of computers spending 31+ hours/week on the internet, and was familiar with Internet forums currently being a member of 3 said forums. Furthermore he has organized and promoted for events for student clubs and organizations.
This participant was tasked with registering for the website, creating a new events post and reviewing the help page. He was able to register with the forums quite easily due to his large experience with forums but did find trouble reading the verification code symbols.

Once registered he was able to easily navigate to the events forums, and exclaimed about the new tab represented forums "yo this is new , i like it". Upon creating a new post he did find the date picker for events a hassle to use. He had made an event for today, so just changed the time, and was unable to proceed he did not know one would have to click the day as a way to complete date entry. It found this counter intuitive and felt there would be a complete/done button to further define that one was done with date entry. He found the Events Quick-look section innovative but would like a better name defining the section as "Upcoming Events".

While creating an event, he clicked the save draft option, and when trying to retrieve it realized he didn't know where it went. Stumped for a minute, he was then able to navigate the help page, where he found the help section relating to where users can find drafts. He felt the help page could do with bigger titles for sections, and claimed "I couldn't find the word 'draft' on this page so i had to type 'save' into the word search".

All in all he found the website well organized with attractive colors, he claimed he really liked the logo but it looked stretched, and would like bolder weight on menu options.

Participant # 3

Participant #3 was a 21 year old female Senior who lived on campus. She has a above average knowledge of computers spending 6-10 hours/week on the internet, and was not familiar with Internet forums. Furthermore she has organized and promoted for events for student clubs and organizations.

This participant was tasked with creating a new topic on the Events forum. She was able to navigate to the events forum quite easily and was able to create a new event quite easily. Though when it came to picking a time/date trouble ensued to point she needed some help from one of the facilitators, where she explained "I was confused about how to change the time of the event".

She explained that all in all she found the website easy to use, and was easily able to identify her new event on the event quick look section. The only change she would like would being able to make the change of time option easier to use.

Participant # 4

Participant #4 was a 21 year old female Senior who lived on campus. She has a above average knowledge of computers spending 11-15 hours/week on the internet, and was not familiar with Internet forums. Furthermore she has organized and promoted for events for student clubs and organizations.

This participant was tasked with registering with the website. She was able to navigate to the
registration page quite easily, and quickly breezed through the terms and conditions page where she explained "to be honest, i didn't read them".

She found the layout of the website nice except the verification codes when filling out registration where frustrating to read and she had to retype it in multiple times before she got it right "What the **** is this symbol? Is that a letter?"

**Participant # 5**

Participant #5 was a 21-year-old male senior who does not live on campus. He has above average knowledge of computers, spending 16-20 hours a week on the Internet, and was familiar with Internet forums, being a member of two. He has promoted events for student clubs and organizations online.

His tasks were registering for the website and posting a reply. Registering was easy for him, but he noted that he was unsure why the email address input box was a different color from the other boxes. He also commented that finding the "Register" link on the homepage was somewhat difficult because it required scrolling down the page or finding a small hyperlink in the header bar. Finally, he thought that the Reset button should not be placed so close to the Submit button on the registration page.

Posting a reply was easy for this participant, but he found it suboptimal that the text of the topic to which he was replying was displayed below the reply form on the reply page, requiring him to scroll down to read it. He commented, "I wasn't sure what text I was replying to."

**Participant # 6**

Participant #6 was a 21-year-old female junior who does not live on campus. She has an average level of computer knowledge, spending 6-10 hours a week on the Internet, and was familiar with Internet forums, being a member of one. She has promoted events for student clubs and organizations online.

This participant was tasked with finding information about two topics: a class for next semester and a free food event. She found it somewhat easy to find information about a class, noting that the Class forum page and individual thread pages were very effective in helping her achieve the task. She used the search function to help her achieve this task, but was confused by the two separate search boxes present on the page (one in the header, one within the forum tab). She did not notice the poster rating system.

She had trouble finding a free food event taking place tomorrow because of a glitch in the Events Quick Look bar that prevented her from following the links to future events. Only the links to events taking place today were usable. For this reason, she considered the Events Quick Look bar to be mostly useless for her task, and she proceeded to look through the topics in the Events and Everything Else forums manually.

**Participant # 7**
Participant #7 was a 21-year-old male senior who lives on campus. He has an above-average level of computer knowledge, spending 11-15 hours a week on the Internet, and was familiar with Internet forums, being a member of one. He has not promoted any events for student clubs or organizations.

His tasks were making a new post and finding help information. He found it quite easy to navigate the forums and create a new post, although he noted that the markup-language annotations produced when he added formatting to the text of his post might be "unsettling to people who are less computer-savvy." He also commented that the events date/time picker was moderately difficult to use and recommended adding a "submit" button to the mini-calendar interface.

Finding the help page was easy for this participant. He considered it informative and quite effective, although he commented that a basic tutorial might be even more effective for people who had never used forums before. For these users, he noted, a walkthrough might be better than the present FAQ format.

**Participant # 8**

Participant #8 was a 21-year-old male senior who does not live on campus. He spends an average of 21-25 hours a week on the internet, and has a close to expert level of computer knowledge. He is familiar with internet message boards and is a member of 5 or more forums. Additionally, he has promoted an event for student clubs or organizations, and he has used the internet to promote his club/organization.

This person was assigned to find a good class to take next semester, as well as find information for a free food event tomorrow. He had an easy time completing both tasks, although he had never used a site similar to this one before. For finding a class, he did not utilize the search function, and instead browsed to the Class forum page. He had similar success finding information for free food, as he assumed it would be in the everything else forum, and it was.

The participant stated that the Classes Forum page was definitely an effective resource to find a class to take next semester. However, he remarked that he did not notice the individual poster rating system in the thread he found. For the task of finding free food, he did notice the events quick look bar, but thought it would be nice if the free food showed up in the events quick look.

**Participant # 9**

Participant #9 was a 16-year-old male high school student who is considering attending the University of Maryland. He spends more than 31 hours each week on the internet, and has an expert level of computer knowledge. He is familiar with forums, though he is only a member of one. He has promoted events for a club that he runs in high school using Facebook.

This participant was assigned to find an event offering free food and to look for help on how to use the site. He had some trouble completing the task of searching for food, as he went through the posts in the events forum one at a time. He also attempted to search for "food," but did not
receive any results. He suggested putting an icon next to events that have food so that they would be easier to find.

The participant found the help page very quickly. He first looked to the bottom of the page, since "help is often at the bottom." Once he scanned the bottom of the page, he quickly found the help link on the top. He said the help page was fairly effective, but he suggested moving some of the most frequently asked topics to the top, so that they would be easier to find.

**Summary of Website Problems found through Usability Test (With Severity)**

After conducting a usability test by asking participants to complete several tasks, we uncovered several issues with the prototype. We placed a higher priority on fixing some of these issues over others, but nonetheless they all needed to be inspected. The problems we identified as being higher priority than the others included a page linking glitch, events linking glitch, display issues in non-Firefox browsers, unclear event time/date completion, and prohibiting non-UMD events from being posted. The smaller issues included the inability to find saved drafts of posts, and unclear distinction of food related events from other events.

Some of the issues we identified as needing immediate fixes, as the usability of the site would suffer if left unfixed. A few of the problems dealt with improperly built links. One was a page linking glitch, which was prevalent in both the thread view, and the post-post submission view. In the both the views, a user could potentially click a link that redirected them to a page which was intended to be inaccessible by users. The other linking glitch was in the Events Quick Look. When a user tried to click on a future event from the Events Quick Look, the link would simply not work. A few more issues were also event related. On the page for posting a new event, users had trouble picking and submitting a date for an event occurring on that same day. The interface gave no clear indication for a users’ completion of the task. The users also worried that non-UMD events would be posted on the Events page, which would clutter the board. Cross-browser issues also surfaced, as some of the layout was affected by viewing the website in Internet Explorer and Google Chrome. The more minor issues included confusion as to where saved drafts of posts could be re-accessed by a user, and the unclear distinction of food related events from other events.

- **Saved Drafts hard to find, also confusing implementation (3):** We decided to change the 'save' button to 'save Draft' to provide users with better affordance as to how to save drafts.

- **Return to last forum, Page linking glitch (5):** Users were running into a glitch after replying to a post where if they selected the 'return to last forum link', they would get sent to a intermediary page used by the tabs on the home-page. This glitch was fixed by correcting the linking.

- **Date/time picker difficulty, no clear indication of completion (4):** The calendar has been improved by removing links to 'auto-submit' in calendar dates, so that now users can select dates without fear of it becoming an entry. Then we provided a 'submit' button to give users with feedback that their time/date entry is complete.
• Not being able to view events for later dates (5): The Events Quick Look bar had a glitch where it would not show future events if it was outside a certain date range. This error was solved by debugging the code for the quick look bar.

• Events posted not related to UMD (4): This is a problem we plan to fix by stringent forum moderating.

• Display issues in non-Firefox browsers (5): This problem was fixed by analyzing our website HTML code using firebug for Firefox and sifting through the code. We found that one of the divs was not in the correct position, moved it to where it needed to be, and used a combination of HTML and CSS changes to solve our compatibility issues.

• Events offering food need food icons so they are easier to find (1).

**Graphical Representation of Post Test Results**

![Graph of WebsiteEase of Use](image)

Figure 19

X axis 1 = very easy 7 = very difficult

Y axis # of participants
**Figure 20**
X axis 1 = very attractive 7 = very unattractive
Y axis # of participants

**Figure 21**
Size of quadrants = # of participants
1 = much easier 7 = much more difficult
Conclusions

UMDSurvival is currently in a functional and polished form. After correcting the problems that were discovered during usability testing, all the features that we intended to put into place are present and working. These features include the ability to register for the website and look up basic help information about how to use the forum. A registered user can make a forum post, which can be an event including start and end dates and times, or reply to another user's post. Registered users can also give feedback to another user in the form of positive or negative Karma, a rating system that gives other users an indication of how reliable or helpful this user's past posts have been. Features that do not require registration include browsing the four forums thread-by-thread (Events, Tips and Tricks, Class Info, and Everything Else) and using the search function to search the entire site or an individual forum for certain information. Finally, users interact with the site via a streamlined, efficient, attractive interface that provides tabbed forum browsing capability as well as an Events Quick Look bar for a quick overview of upcoming events.
Future work on UMDSurvival could take the form of integration with other technologies or websites. One idea that was discussed in the planning stages of the project was integration with Twitter. A registered user would make and receive tweets, perhaps via a mobile device, according to a customizable set of rules. The user may set her account to receive a tweet whenever someone makes a new post, or only when someone posts a new event, or only when someone replies to one of her posts, etc. Integration with other social networking sites such as Facebook would provide a good way to attract new users as well as increase the number of ways to communicate, including site-to-user communication as well as user-to-user communication. For instance, integration with Facebook might involve an option for a user's new posts on UMDSurvival to appear on their Facebook wall as well.

Future developers of this or a similar idea should keep in mind that although the project is built on top of a simple forum, it must incorporate additional features seamlessly. For example, integrating the concept of events with dates and times involved a substantial amount of planning and careful coding, including modifications to the database and several levels of code within the forum back end. This effort was taken to make sure that it was natural and seamless to post and view events, and that the modifications to the basic forum paradigm did not stick out as artificial or contrived. Ideally, the user should feel at ease using every part of the site.

Acknowledgements

We would like to acknowledge Prof. Ben Bederson and our CMSC434 TA Megan Monroe for their help, feedback, and support during the project. We would also like to thank DreamHost web hosting for selling us server space and bandwidth for the website, as well as phpBB for writing the forum software that formed the basis for UMDSurvival. Finally, we would like to thank the nine participants in our usability test for their invaluable feedback and constructive criticism.

References


UMD Survival Pre-Test

What is your gender? Male Female
What is your age? ______
What is your class standing? Freshman Sophomore Junior Senior Super-Senior Graduate Student
Do you live on campus? Yes No
Do you have any kind of physical disability? If yes, please describe below.

Are you colorblind? If yes, please specify which type of color blindness you have.

Have you ever organized or promoted an event or events for any student clubs or organizations? Yes No
If you answered yes to the previous question, did you use the Internet (email, posting on a website) in order to organize or promote the event? Yes No

How would you rate your level of general computer knowledge or expertise?

1 2 3 4 5 6 7
Novice Expert

How many hours do you use the Internet in an average week?
0 1-5 6-10 11-15 16-20 21-25 26-30 31+

Are you familiar with the idea of Internet forums or message boards? Yes No

Are you a member of any Internet forums or message boards? Yes No
If yes, how many? 0 1 2 3 4 5+
**Task 1 Post-test**

Did you complete your task?  
Yes  No

How easy was it to complete your task?  

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How attractive is the site overall?  

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Have you used similar sites to this one before?  
Yes  No

If you answered yes to the last question, was this site easier or more difficult to use than similar site?  

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How easy was it to navigate to the Events forum?  

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How easy was it to create a new post?  

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What was your opinion of the new post text-editing options?

How easy was the events calendar to use?  

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What changes would you make to it?

Please write any general comments or suggestions about the interface.
Task 2 Post-test

Did you complete your task?  Yes  No

How easy was it to complete your task?

1  2  3  4  5  6  7
Very Easy  Very Difficult

How attractive is the site overall?

1  2  3  4  5  6  7
Very Attractive  Very Unattractive

Have you used similar sites to this one before?  Yes  No

If you answered yes to the last question, was this site easier or more difficult to use than similar site?

1  2  3  4  5  6  7
Much Easier  Much More Difficult

Was the Terms of Service clear and easy to understand? If no, how so?

Was the registration process clear, and were the requirements for creating an account well explained?

Please write any general comments or suggestions about the interface.
Task 3 Post-test

Did you complete your task? Yes No

How easy was it to complete your task?

1 2 3 4 5 6 7
Very Easy Very Difficult

How attractive is the site overall?

1 2 3 4 5 6 7
Very Attractive Very Unattractive

Have you used similar sites to this one before? Yes No

If you answered yes to the last question, was this site easier or more difficult to use than similar site?

1 2 3 4 5 6 7
Much Easier Much More Difficult

Did you succeed in finding at least one class that met some or all of the goal criteria? Yes No

If yes, which class did you find?

If yes, please rate the class that you decided on. How well do you think it fits the goal criteria?

1 2 3 4 5 6 7
Only a little Completely

Did you utilize the search function on the site? Yes No

How effective would you say the Classes Forum page was as a resource to help you achieve this task?

1 2 3 4 5 6 7
Not at all Very Effective

How effective would you say individual Thread pages were as a resource to help you achieve this task?

1 2 3 4 5 6 7
Not at all Very Effective

Did you notice the individual poster rating system? Yes No

If yes, how effective would you say the poster rating system was as a resource to help you achieve this task?

1 2 3 4 5 6 7
Not at all Very Effective

What improvements would you add to the Forum page?

Please write any general comments or suggestions about the interface.
Task 4 Post-test

Did you complete your task?  Yes  No

How easy was it to complete your task?

1  2  3  4  5  6  7
Very Easy  Very Difficult

How attractive is the site overall?

1  2  3  4  5  6  7
Very Attractive  Very Unattractive

Have you used similar sites to this one before?  Yes  No

If you answered yes to the last question, was this site easier or more difficult to use than similar site?

1  2  3  4  5  6  7
Much Easier  Much More Difficult

What part of the site did you use to search find your free food?

Did you notice the events quick look bar?  Yes  No

If yes, how useful did you find the quick look bar?

1  2  3  4  5  6  7
Very Useful  Completely Useless

What would make it easier to find this type of event?

Please write any general comments or suggestions about the interface.
**Task 5 Post-test**

Did you complete your task?   Yes   No

How easy was it to complete your task?

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How attractive is the site overall?

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Have you used similar sites to this one before?   Yes   No

If you answered yes to the last question, was this site easier or more difficult to use than similar site?

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Was the help page link easy to find?   Yes   No

Did you find the help page informative?   Yes   No

Did the help page add to your knowledge of forums?   Yes   No

How effective did you find the help page? (Likert scale from very easy 1 to 7 very difficult)

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What improvements would you add to the help page?

Please write any general comments or suggestions about the interface.
Task 6 Post-test

Did you complete your task?  Yes  No

How easy was it to complete your task?

1  2  3  4  5  6  7
Very Easy  Very Difficult

How attractive is the site overall?

1  2  3  4  5  6  7
Very Attractive  Very Unattractive

Have you used similar sites to this one before?  Yes  No

If you answered yes to the last question, was this site easier or more difficult to use than similar site?

1  2  3  4  5  6  7
Much Easier  Much More Difficult

Did the process of posting a reply cause any difficulty for you? If so, how?

Was the information in the topic presented in a way which allowed easy browsing?  Yes  No

Please write any general comments or suggestions about the interface.