A Plan for Updating the Website of the Society for Disaster Medicine and Public Health

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Abstract

We provide a plan for revising the web site for the Society for Disaster Medicine and Public Health (SDMPH). This report starts by noting some problems with the Society's web site address (societyfordisastermedicineandpublichealthinc.wildapricot.org/). We document some of the problems with the site using small user studies. A plan for remediating these problems is presented and the resources needed, and a schedule are presented.

Acknowledgements

Alice and Ruth might read preliminary versions. Don Donahue would give great comments. We thank Gaby Ordaz and Yinjie Hong for help on the usability studies reported in Appendixes.

Introduction and Executive Summary

The Society for Disaster Medicine and Public Health (SDM&PH) is a collaboration of health and medical professionals to share ideas, publications, and related materials on issues related to disaster medicine and public health across the globe. Their vision is to connect members, users, and those out in the front lines with the proper education and resources to improve communities everywhere. The society's web site is intended to provide membership information including how to join, a pointer to the flagship journal, and membership benefits.

The board of the society has requested that we note the problems and suggest changes to fix these problems. So, we examined the web site and ran a few usability studies in a class that Ritter taught at Penn State in Spring 2021 (IST 413, Usability Engineering), and examined it though an internship by Alderman in Summer 2021 and additional work by Giallorenzo.

We start by considering who are the stakeholders and users of the website. This list is like what was done by Ritter, Freed, and Haskett (2005) for university

department web sites. Table 1 shows the list of users and stakeholders that we kept in mind while examining the website. We have put them roughly in the order that we see as their importance. The board may have additional types of users and may wish to reorder this list.

Table 1. Stake holders and users of the SDMPH web site, roughly ordered in importance.

1	Members and users who are subscribed to the site
2	Users looking to become members
3	The society's board members
4	Someone taking up a reference on who is a member or a board member
5	Readers and potential of readers of the journal
6	Authors and potential authors of journal papers
7	Funders of the journal and conference
8	Conference attendees and potential conference attendees
9	Students in medicine, nursing, and disaster management
10	General public, for factual unbiased information

Society members will be one of the main groups that will more than likely make up most of the site's traffic. These individuals will rely on the site to provide them with information and direction regarding their memberships, news, and events. Without consistency, usability, and organization, the society's most important users could be led astray.

The next group is new users looking to become members of the Society for Disaster Medicine and Public Health. Most of this user group, if not all of them, will be unfamiliar with the site and its navigation, so it is important that this site be modified to accommodate this group.

Another important group of stakeholders is the Society's board members. The website is the most notable way that this society will be viewed, and some amount of both of their reputations can be based on the aesthetics and usability of their website of the society they serve and being listed on this site. The website might also communicate with them.

The penultimate group we have as important stakeholders would be the authors and contributors of the journal. This is the intended purpose of the site, to bring authors and medical professionals together, by sharing thoughts, studies, and ideas with each other to help heal communities hit by disasters.

The last group is students and the general public who may use the web site for specific or general information (respectively) that the society provides.

[Query to Alice/Ruth/James/Don/Board: other stakeholders?]

The current web site

Figures 1 to 3 show the current first page of the web site (which is a series of connected sections on a single long page). Figure 4 shows a prominent separate page for donations.

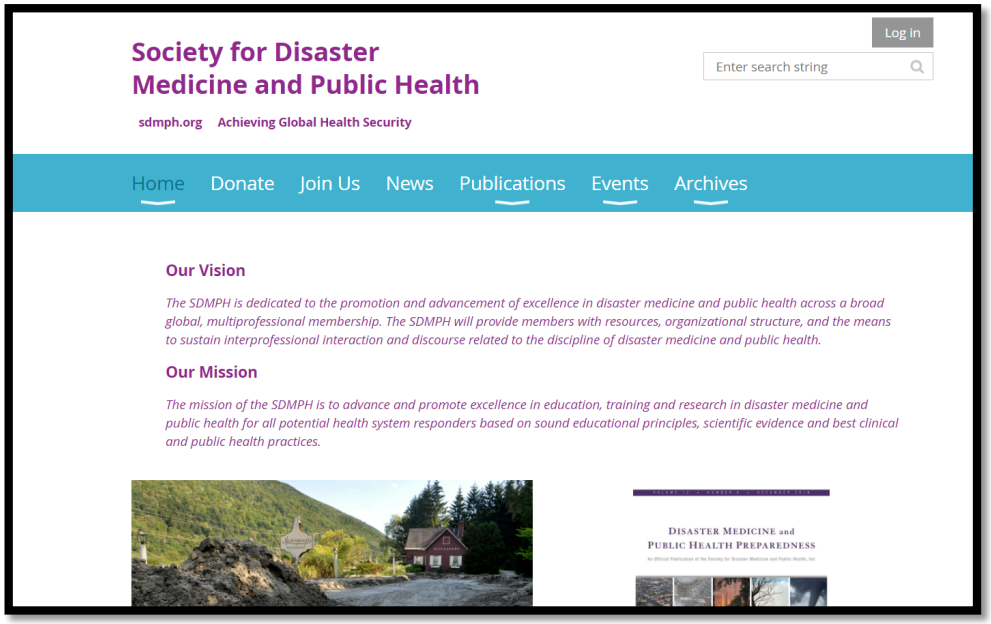
Some writers in human-computer interaction (HCI) will suggest that a page should not be too long, but we understand the design rationale for a long front page. This page probably should be made into a single page with links to the material sections, but we do not call for this action at this point nor note it.

Figure 1 shows the first screenful of the home page. This includes the home bar for other links, as well as the vision and mission statement of the organization.

Figure 2 displays shortcuts for upcoming events, call for papers, and a featured member, all with are not available.

Figure 3 is at the very bottom of the home page. Here users can sign up to be a member. It also includes all the organization's social media links.

Figure 4 shows how to donate to the Society. This page is prominently displayed on the home menu banner.



https://societyfordisastermedicineandpublichealthinc.wildapricot.org/

Figure 1. *The front page of the web site. The first thing users probably see is the vision and mission statement of the organization and some side scroll pictures.*

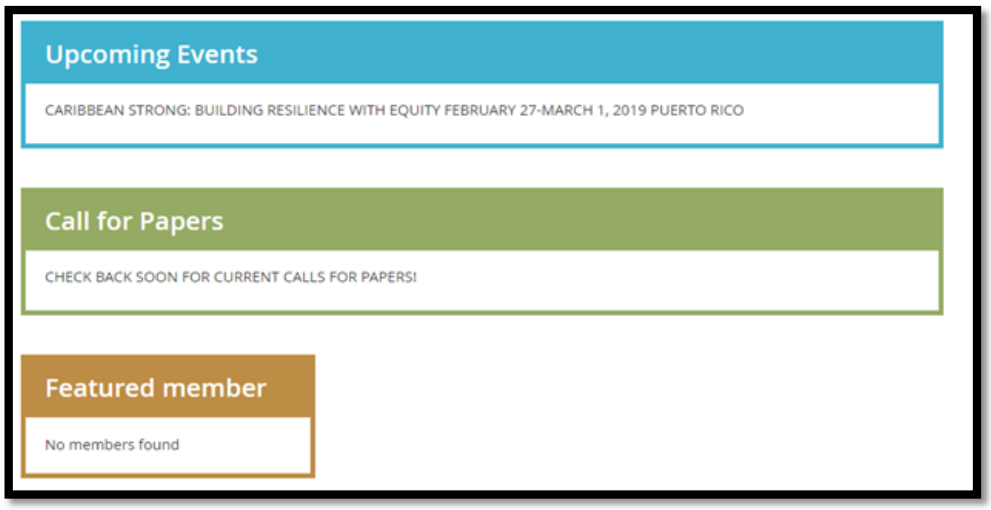


Figure 2. *The second section of the home page, members see Upcoming events, Information on "Call for Papers" and a featured member (that is blank currently).*

Figure 3. *At the bottom of the home page, users can see on how to become a member. It also includes the business location and pointers to the Society's social media sites.*

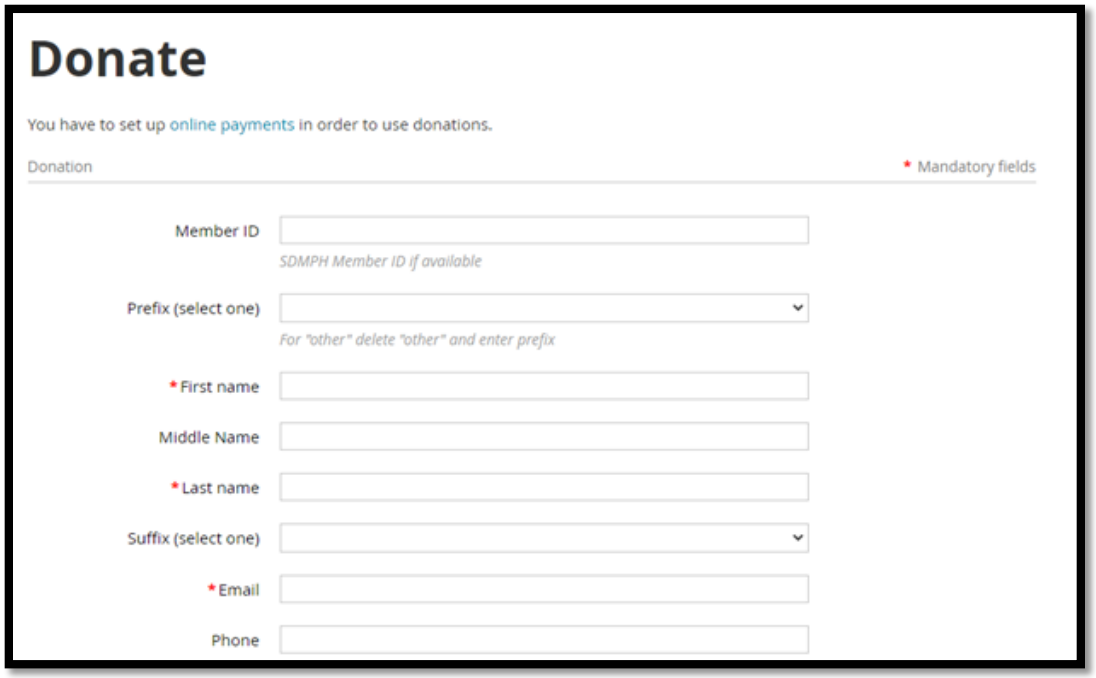


Figure 4. *The donation page.*

With the stakeholder analysis and description of the existing site in hand, we now turn to noting problems with the existing site.

Studies of problems

We next present problems with the web site found using theoretical and experimental methods.

The web site's URL

The first thing we recommend is changing the website URL because it is complicated and difficult to remember, type, and explain: https://societyfordisastermedicineandpublichealthinc.wildapricot.org/. The most particular problem is that the URL includes the web site support system's name in the URL path.

A study, explained in detail in Appendix 1, found that a sample of current Internet users do not find this URL attractive and believe that it looks "unprofessional", because of the webservice company's name in the path. We will also show that it is unnecessary, and how to make this change easily and quickly.

Recommendation 1: Modify the home page URL to remove 'wild-apricot'.

Fix 1: The Wild Apricot site allows that the URL can have wild-apricot in it—or not—as a setting in the web site parameters. Simply change the URL to not include the service provider and allow the path with 'wild-apricot' in it as a variant. This is done by going into the site settings and clicking the "Domain name" link.

Recommendation 2: Modify the home page URL to include a short variant.

Along with removing 'wildapricot' from the URL, the address should be condensed to 'sdmph'. The new URL should look like 'SDMPH.org'. When we Google searched 'sdmph.org', it redirects to the main home page, but the URL still shows the longer address.

Recommendation 3: Modify the home page URL to include addresses in different domains.

The society could start advertising its website as sdmph.org, at least, and should consider purchasing nearby domains, such as sdmph.net and sdmph.health, which typically are about $10/year.

Problems with the first page, heuristic evaluation

Let's take the first page in Figure 1 and examine it with tools from the perspective of HCI. The use of the home page for current and coming events is a good idea. The problem in this case, that the event has come and gone. Also, the "featured member" section should not be left blank. CURRENT Board members are not noted (such as Ritter, for example). There are reports that some of those listed are not with us.

We do not need a user study to know that this is poor design.

Recommendation 4: keep the first part of the home page up to date.

To keep the web site up to date you need

4a. someone with the authority to make changes and the time to make these changes.

4b. A quick review of the web site should become part of board business every month or done before board meetings as an executive meeting topic.

4c A web master should be appointed. This may involve weekly or fortnightly meetings with someone like Alice, Ruth, or James to discuss and confirm changes. One might get a student to do it for the experience, but that is somewhat unfair but might be found. In any case, some one person needs to be responsible for the web site.

4d New users must scroll through the entire home page to the bottom to find out how to become a member. This is an issue because if they do not scroll the whole way through, they will never see it. This information can be a link earlier up the page.

Recommendation 5: The membership (for those who have or will join) should have its own page or section, with a link to it in the home bar. It could also be advertised more in the home page with a header or bold text.

Recommendation 6. The donate page should be more a part of the home page and have updated visuals. A key is to have users feel good and excited about donating. And the society needs to consider how important this is based on previous donations (i.e., have there been any through the web site?).

Recommendation 7. The graphics on the current site do not appear to have alt tags explaining what the graphics are. We recommend setting up a small style guide noting that figures have an alt tag, and that alt tags be applied to all graphics. For example, the poster for the 2019 meeting should have an alt tag that says, "poster with details for the 2019 meeting". These tags help disabled users and those using simplified browsers.

Information needs for the whole site

We also examined the site from the perspective of information needs, what information are users looking for on the site. We started with a rather comprehensive list generated for creating a university department web site (Ritter, Freed, Haskett, 2005).

We mapped the needs and terms from a department's website to the Society's website. For example, a welcome message from the Dean can be replaced with a welcome message from the Society's president, courses with conferences, and contact information with contact information.

The full analysis is included as Appendix 4. There are several pieces in the existing website that will have to be replaced.

Some of the missing pieces from Appendix 4 includes a message from the board, about the organization, a directory (if possible), conferences and meetings, and member relations.

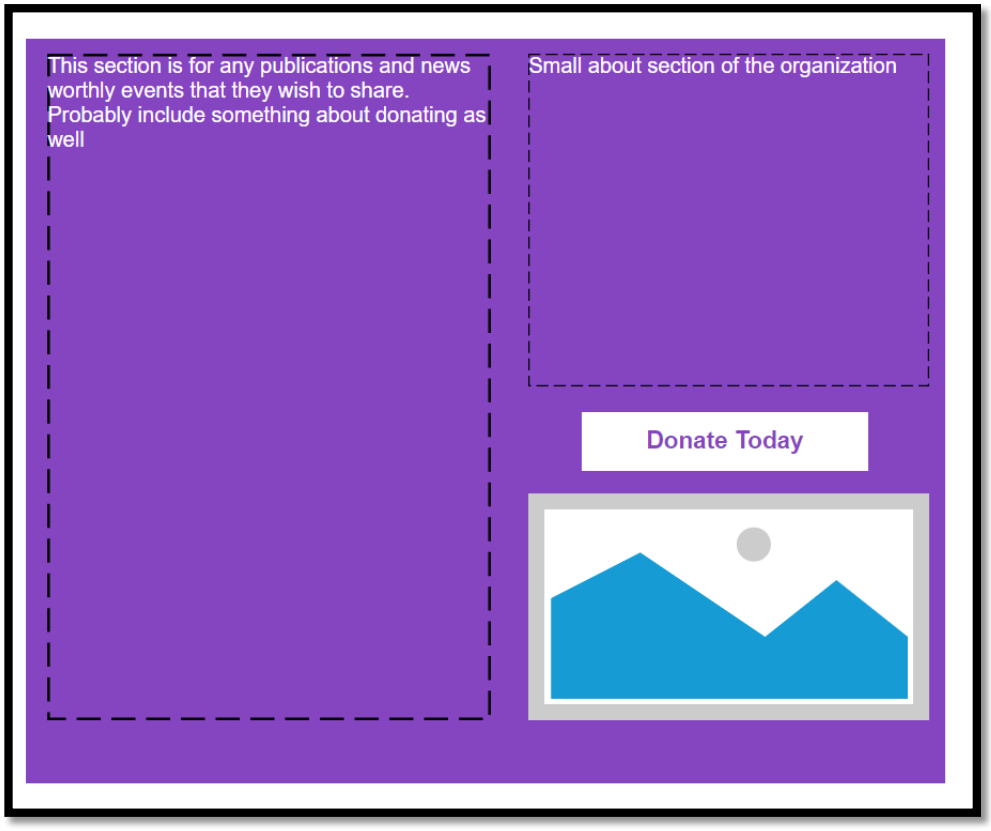
These can be fixed by collecting the information needed and added them to the site

Recommendation 8: Check the list in Appendix 4 and update the materials.

Proposed new site pieces

Figure 6 shows a mocked up new home page created in Axure that could easily be recreated in HTML in Wild Apricot. It solves problems noted in the recommendations and some problems not noted in the recommendations.

Figure 5a-c is what we believe could be a more useful home page. Keeping the original style, we wanted to make sure the home page was simple enough and keep the attention of members and new users. It also needs to be maintainable.


This section is for any publications and news worthly events that they wish to share. Probably include something about donating as well
Small about section of the organization
Donate Today

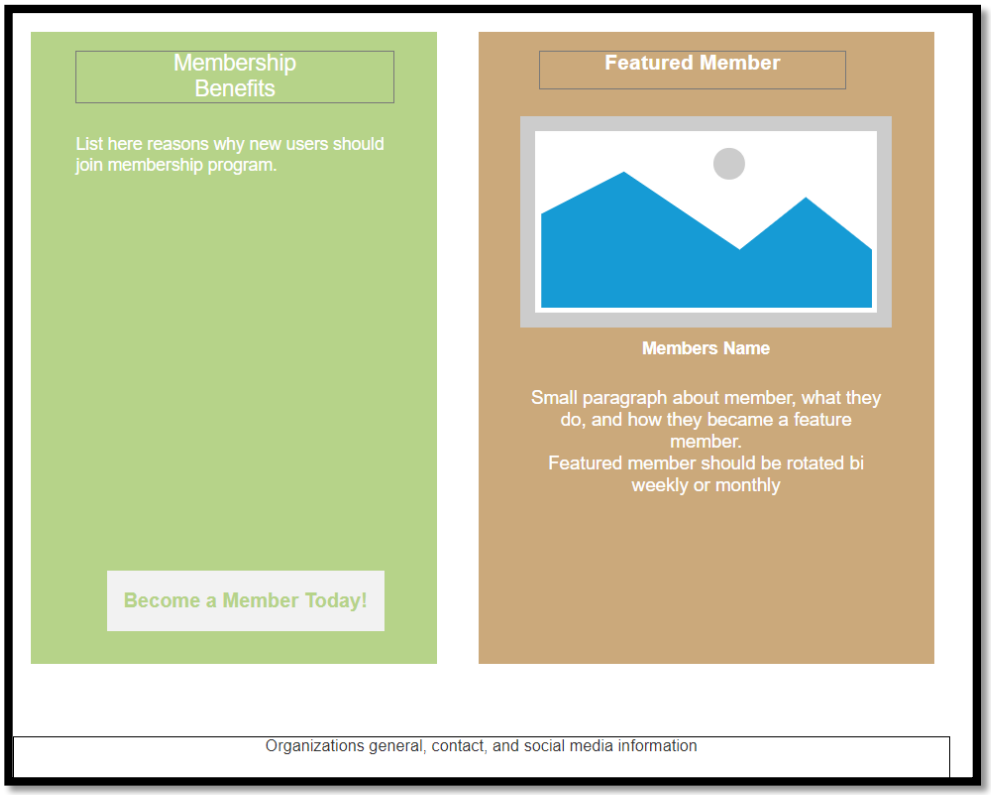

Membership Benefits
List here reasons why new users should join membership program.
Become a Member Today!
Featured Member
Members Name
Small paragraph about member, what they do, and how they became a feature member.
Featured member should be rotated bi weekly or monthly
Organizations general, contact, and social media information

Figure 5a-c. *SDMPH new mockup home page.*
Link: https://zevpaa.axshare.com (Password is draft)

Plan and Schedule

Step 1: Rename the Society's URL

To change the URL, go to the setting tab in the editing page. Next click on the "Domain name" link. There, you will be able to change the URL, including taking out the "wildaprioct".

The change will need to be propagated through the membership, update stationary, web site, links, tell the membership to relink. But, in the meantime, it looks like wild-apricot will support the old URL.

Step 2: Do everything else

This will take approximately one week (10-40 hours) in wild apricot to complete a draft. Ethan Alderman can help using his internship hours through July 2021.

At end, announce to the membership that we did something.

Step 3: How to do Maintenance

Maintenance for this site requires three things. First is to properly change event information as it comes and passes. Once it does pass, change the information to the next event. If there isn't another event planned, give a summary and details of the last event that happened.

Next is to rotate the featured member every month. At the very least do not have it blank.

Lastly, as more authors publish and share new things with the organization, a summary of it should be displayed for other members to learn. Diversifying the information provided makes the site appear fresh and exciting.

We predict that this will take 1 hour a month, so assume it will take 2 hours. It is easy to ignore this, so include it in a standing meeting either before or part of the monthly meeting. It is the case that the real world is getting mirrored on the Internet. If the Society does not create this mirror, it will not exist in this other world.

Conclusion and Summary of Problems

After months of examining the site, we saw and noted problems based off our user's survey data and our own knowledge of practice. In the first pages of the document, we added recommendations on what the site is missing and how to fix/add changes. We have also included on how to maintain the site properly to improve overall performance.

As we wrote this report, we noticed that the web site had not been kept up. There is a lot of deferred maintenance on a major public face of the organization. This work will initially take, Ritter estimates, 10 hours of work, which will require time from Alice, James, Ruth, and Don.

It will take another hour to check that work, testing links and pages for consistency.

The site will then take 1-2 hours per month to keep up to date. This time needed will be sporadic, and some months nothing will change; other months multiple pages will change. Not all the time will be making edits, some time will be updating board member addresses, page links, and getting announcements to insert from special issue editors. This is a necessary task, however, so says all the web site design books and Ritter, Freed, and Haskett (2006).

Table 1: Summary of problems/tasks

R1: Modify the home page URL to remove 'wild-apricot'.

R2: Modify the home page URL to a short variant

R3: Modify the home page URL to include addresses in different names

R4: Keep the main part of the home page updated

4a: Someone with the authority to make changes and the time to make these changes.

4b: A quick review of the web site should become part of board business every month or done before board meetings as an executive meeting topic.

4c: A web master should be appointed. This may involve weekly or fortnightly meetings with someone like Alice, Ruth, or James to discuss and confirm changes. One might get a student to do it for the experience, but that is somewhat unfair but might be found. In any case, some one person needs to be responsible for the web site.

4d: 4d New users must scroll through the entire home page to the bottom to find out how to become a member. This is an issue because if they do not scroll the whole way through, they will never see it. This information can be a link earlier up the page.

R5: The membership (for those who have or will join) should have its own page or section, with a link to it in the home bar. It could also be advertised more in the home page with a header or bold text.

R6: The donate page should be more a part of the home page and have updated visuals. A key is to have users feel good and excited about donating. And the society needs to consider how important this is based on previous donations

R7: The graphics on the current site do not appear to have alt tags explaining what the graphics are. We recommend setting up a small style guide noting that figures have an alt tag, and that alt tags be applied to all graphics. For example, the poster for the 2019 meeting should have an alt tag that says, "poster with details for the 2019 meeting". These tags help disabled users and those using simplified browsers.

References

Ritter, F. E., Freed, A. R., & Haskett, O. L. (2005). User information needs: The case of university department web sites. *ACM interactions, 12*(5), 19-27. acs.ist.psu.edu/acs-lab/reports/ritterFH05.pdf.

Appendix 1: Study 1 – Initial examination and URL

One of the student groups in IST 413 Usability engineering in the Spring semester of 2021 (Giallorenzo, Ortez, & Hong) chose the SDMPH as the site for them to do their homework projects with.

One of their studies examined the URL name and length. The most noticeable issue that they found while conducting usability studies this spring in IST 413 on the website was the inclusion of "wild-apricot" in the URL. They gathered from some surveys and one usability study that users do not care to see the web site provider's name as part of the URL because it comes off as unprofessional.

Here, we document this concern and note a fix. This survey was done for design purposes, so it was not done with IRB approval.

Method

Materials and Subjects

Survey – They created an online survey that compared the Society for Disaster Medicine (https://societyfordisastermedicineandpublichealthinc.wildapricot.org/) and Society for Affective Science (ULR) website to get feedback about the aesthetics of the website compared to another similar site. (https://society-for-affective-science.org/).

Usability Test – They designed a small test that got users to identify strengths and flaws of the website's design, layout, and usability. An issue the survey attempted to address was the users' inability to understand the paths and navigation of the website. This was created in Qualtrics. These two items, Survey and usability Test, were presented as Qualtrics quizzes. They appear as Appendix 3.

They recruited approximately ten participants consisting of IST students at Penn State and other faculty and staff at Penn State.

Design and procedure

Participants who agreed to participate were sent a link to the Qualtrics survey shown in Appendix 3.

The participants had a list of tasks to be performed that included signing up for an account as well as viewing the board members. Users were timed and asked to provided commentary and notes on any experience they had that was either pleasing or displeasing.

Results

10 out 10 users preferred the Society for Affective Science's URL.

All users included negative comments about their experience while performing the tasks.

Summary of problem and solution

Suggestion 1: The group's report suggested that the Society change its web site URL from "societyfordisastermedicineandpublichealthinc.wildapricot.org" to a shorter title. This is a simple fix compared to some of the layout work that needs to be done with the website itself.

Suggestion 2: The group's report also suggest that the tabs on the first page be made more organized and defined so that users can understand where they are heading and what will be presented to them.

Appendix 2: Interview Study 2

In study 2, the IST 413 students wanted to see what users thought about the website as far as the literal meaning of "The Society for Disaster Medicine and Public Health." this feedback can help inform us how the public views the site. They conducted interviews with a few students in the IST 413 class taught by Dr. Ritter in Spring of 2021. They asked the participants questions that could potentially provide information that could benefit the design of the website.

Method

The three student experimenters met either in person or via Zom with participants and discussed questions about the website and society while having the website in front of them.

Materials and Subjects

The six participants selected were a sample of convenience and had no prior exposure to the website. They were Penn State undergraduates. Each experimenter also had a device that would allow the participant to see the website while being interviewed. Responses were recorded by the experimenters during the interview.

Design and procedure

Interviews were conducted individually. The experimenters asked questions while allowing the participants to view or browse the website when necessary and then recorded responses.

Results and Suggestions

Their interviews yielded some great suggestions. First was the information that is expected to be presented immediately upon arrival to the site. The authors concluded that new users would prefer to see resources for when disasters strike as well as for when health crisis arise.

Next, they also concluded that an appropriate means of updating users and delivering news could be through e-mail.

Moving on, the authors also found that all participants had at least mentioned CoVID-19 not being a focal point of the website, at least from viewing the site's home page. A bigger presence and more focus on COVID-19, when a pandemic is ongoing, would be how we suggest the society address this current issue.

Joe, could go back and insert more on each question in Appendix 3.

Appendix 3: Survey used in Study 1

Society for Disaster Medicine and Public Health

Website Redesign Survey

Please leave a number rating for each question from 1-5, 1 being completely disagree and 5 being completely agree. You can also leave any comments you have after each question if you wish to go into further detail.

1. **I found the website to be easy to access and navigate:**

   1 (disagree) - 5 (agree)

2. **All the information I needed I found:**

3. **I found the website with little to no problem:**

4. **The URL is simple to memorize:**

5. **I would recommend others to go to this site:**

6. **This site gives trustworthy and reliable information:**

7. **The top thing I would like to see changed about the website URL:**

8. **Any other comments or concerns:**

Appendix 4: Information needs for the SDM&PH web site

A list of items to include on the SDMPH website, and whether they are included already. This list is based on Table 4 in Ritter et al. (2005).

Alice/Ruth/James/Don/Board should check the full list.

Task / Translation to SDMPH (TRANSLATION IN CAPS)

Introductory

Message from President/BOARD CHAIR

About the company/SOCIETY

Purpose of company/SOCIETY

Mission statement

Vision statement

People

Listings of Categories

Contact information

Directory

Points of contact for ALL OF THEM

General / DROP THIS TOPIC

The Web / DROP THIS TOPIC

Admission (HOW TO JOIN)

Research (OUTPUTS)

Records (from the Society, MIGHT BE DROPPED)

Programs

Research (SPECIAL JOURNAL ISSUES, PERHAPS OTHER TOPICS)

Education (CONFERENCES, OTHER MEETINGS)

Resources (could be large, e.g., journal archives, conference archives)

Locations and Labs may not be Applicable, WORTH A SMALL DISCUSSION WITH RITTER AND BOARD

Policy

Member relations / CONSTITUTION

Diversity / statement on, description of, noting that reach out to nursing

Corporate relations

Current events

Current Issues

News and Media

Press releases

Calendar events

/ FEATURED JOURNAL ARTICLES

Financial Matters

Employment (may be worth dropping)

Membership (can be a duplicate link)

How to Donate (have on home page and in this area)

Fundraising (if applicable)

Physical location

Address of organization

List of Locations / MIGHT BE DROPPED, OR USE NEXT CONFERENCE LOCATION AND DATE

Resources

Departments / NEED ADVICE FROM SDMPH FOR REPLACEMENT ITEMS

Lab and Centers / OR DROP

Other resources / OR LIST OF DEGREE PROGRAMS, RELATED SOCIETIES

Web Features

Search /CAN HELP BY PROMOTING THE ORGANIZATIONS SITE IN SEARCHES RELATING TO THE TOPIC

Contact information /MAY BE DUPLICATE, BUT WORTH DUPLICATING

Related links / NEED ADVICE FROM SDMPH FOR REPLACEMENT ITEMS

FAQ (Can be built with board, could Ritter have 20 min. at a meeting?)

Support (This means how to get help, e.g., email sdmph@sdmph.com)

Currently, the site does not have any providing contact information like an email address or phone number. The site has supporting domains in sdmph.org, .net, and .com

Alternative views

Text-only

Alternate media available / IF TRUE

Alternate language / IF TRUE