A mission to provide troubled Lesbian, Gay, Bisexual, Transgendered, and Questioning teens a channel to be heard and helped via chat | www.disabuse.org

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For Team Assignment #5, she focused on web design, writing/editing the paper, proctoring and filming the user testing, and the presentation. Overall, Tanya took the lead on organizing group meetings, researching, interviewing, writing the papers and designing logos.

Aymon Fournier
For Team Assignment #5, he focused on programming the chat. Overall, Aymon took the lead on coding, researching and editing of papers.

David Todd
For Team Assignment #5, he focused on web design, writing/editing the paper, proctoring the user testing, editing the videos. Overall, David took the lead on researching, interviewing, writing the papers, and editing the videos.

Problem and Solution

Adolescence and growing up is hard enough for teenagers, but sexual identity crises can push troubled teens to the edge, and in severe cases, suicide (Chiou). We are proposing an application called Alliance, designed to bridge the gap between troubled teens on a struggling search for help with volunteers and trained professionals. Suicide hot-lines exist, but have proven to mostly help those who actively searching for or are open to receiving help (Suler). The issue lies in those who are closer to giving up than looking for a helping hand. Our application aims to build a secure, welcoming, and comfortable environment that LGBTQ teenagers in danger of committing suicide can instantly turn to with no fears or inhibitions of being judged or shameful. Our interface, comprised of a mobile and personal computer interfaces, attempts to create a smooth connection between volunteers, or Allis, and teens seeking help instantly. Alliance allows those who are just beginning to struggle with depression caused by, to easily reach out and express their thoughts and feelings with trained volunteers, curtailing the problem before it becomes too severe. The application is simple and welcoming, allowing a user to unload their inner turmoils and get the help and support they need.

Background/ Past Work

Many efforts have been set forth by private, public, and even government resources to help
LGBTQ youth with nding and accepting themselves. There are dozens of hot-lines and volunteer resources, but none of them prove to be streamlined enough to be a quick, easy, and reliable source that users can reply on without feeling like their privacy is being compromised.

In her Family Acceptance Project (FAP), Dr. Caitlin Ryan approached parents of young adults whom identified as gay, lesbian, bisexual, or transgendered to record family interactions, specically looking for either rejecting behavior (e.g. verbal harassment, physical abuse, exclusion) or supportive behavior (e.g. finding positive rolemodels, or welcoming their childs LGBTQ friends). She found that, compared to those whose parents supported them, the youths treated with rejection were more likely to be depressed, use illegal drugs, or commit suicide. FAP attempted to correct this by educating families about the effects that their actions can have on their children that identify as part of the LGBTQ community. Observers have noted that there is still much work to be done in promoting acceptance, and that the approach of educating families about LGBTQ issues will not necessarily eradicate rejecting behaviors.

The White House has a site dedicated to LGBTQ issues, including a blog and links to such resources as It Gets Better and Stop Bullying. It also contains articles about the LGBTQ community and links to news about relevant legislature. While it does contain much important factual information, there is very little on the site itself geared specically at youths that are looking for ways to come to understand their sexual orientation; it acts better as a source for learning more about the LGBTQ community as a whole. While our project will have links to other relevant sites, its primary focus will be on aiding youths with an immediate need.

The Point Foundation, similarly, contains great facts and resources like scholarships for LGBTQ students, as well as mentoring projects, but it is highly unlikely that an adolescent in need would consider this as a saving grace in times of need. CenterLink also offers a similar service, but more intimidating, possibly from its intruding help center tracking system or poor choice of a hot pink color scheme. While there is nothing wrong with these organizations, they both seem to be targeting those who are not in life threatening situations, as well as those who have overcome sexual identity crises and looking to help others.

With the media covering more and more teenage suicides as a result of students being bullied for their sexual orientation, organizations such as It Gets Better and the Trevor Project have emerged to combat these issues. It Gets Better succeeds in raising money and nationwide awareness of LGBTQ suicides and bullying. Many, from public gures to your average teenager, have uploaded videos with their experiences and positive words to convey to struggling teenagers that it indeed will get better.

The main function of these videos is to talk about the future, but these teenagers are dealing with issues now, and they don’t know how to combat the bullying and harsh treatment they receive on a day-to-day basis. Stop Bullying is a website for parents, teachers, and students, but as far as providing help, it lists 911 and the suicide prevention hot-line.
Interactive Prototype

Our interactive prototype brought our idea fully to life. From the design process, to the sketching and testing, creating this interactive prototype implemented all of our scattered ideas into one streamlined and aesthetically pleasing interface.

During the design process, we never quite imagined how difficult it would be to implement a working chat. When diving into creating our interactive prototype, we started with our home screen to give us some boundaries to work with and just the motivation we needed. Using HTML, CSS, JavaScript, and JQuery, we created our website, which is the hub of alliance. We tried to keep the home screen as clear and crisp as possible, while providing all the information both audiences needed, the users as well as the volunteers, or Allis.

The two main things that were built to get our application to work were the chat and the Alli interface. The chat was created in PHP, allowing a login for both a user and an Alli. An Alli is detected if any part of their username contains “alli.” We built our PHP code around a basic chat template and catered it to our needs. For example, we built it so users would log into the chat, they would only be able to see users that have the name containing the word “alli”. It was important including this portion of code because if we didn’t, users would log in and be able to chat with other users.

Once the chat was complete, it was embedded in the regular user interface as well as the Alli interface. It was imperative that we keep our main design intact, implementing a left side-bar, right sidebar, and footer. The left bar included a login recognition line, stating the Alli’s username as “Logged in as: **” followed directly underneath by a danger rating bar. We were not able to implement the danger rating as originally planned, but the idea was to have an algorithm that calculated the danger rating of an individual by scanning the words in their chat, and adjusting the rating according to how often negative words were used. Directly below that we placed a “Notes” section, that we never got to save our text.

For Task 1, the user was prompted to sign in as an Alli.
Figure 1a. Home Screen

Figure 1b. Login Screen
For **Task 2**, the user was handled a mobile device with the alliance mobile application, and was prompted to respond to a chat from a user.

![Figure 1c: Entering Information](image)

For **Task 3**, the Alli’s were tasked at being able to gather important information given by the Alli interface, and make decisions based on it.

![Figure 2. Alli is able to accept or defer chat from a user](image)
Testing Methods

Participants

Similar to our prototype testing, we had a variety of participants involved in our study. It is not appropriate to seek out suicidal or severely troubled LGBTQ teens and get their take on our interface, we decided to focus on the volunteer (Alli) side of the application and determine whether that portion of our interface was efficient. We chose two random participants with different educational backgrounds, ages, and experiences with struggles in their own sexuality. Our first participant, A, is a 20 year-old questioning male UMD student. Our second participant, B, is a 22 year-old male UMD student who prefers to not label his sexuality. Participants A and B were randomly selected from apartment building, Commons 7.
Study Environment

Both of our participants were tested in the same Commons 7 study room. They sat in the same seat facing the same direction, and both had David and I protecting them on the same sides. The room was cool, comfortable and well-light. Noise distractions were at a minimum and each user was in the test room by themselves with the two proctors, David and Tanya.

Tasks

The users were asked to go through and provide feedback for three tests. First, the participants were tasked to pretend that they were an Alli, and login as an Alli. The second task was to transfer using the alliance mobile to the computer application. Third, the participants were asked to gather information from the Alli interface to figure out when to use which resources.

Procedure

Our test subjects were all asked to narrate how they were to complete each task that they were told to complete. Tanya introduced the project to our subjects, and explained its purpose, the target users, and the desired goal. David presented background information relevant to the other two tasks, and subsequently conducted them. Tanya video recorded the subjects. Test subjects were instructed to speak lucidly during the process.

Open ended questions were given to the participants to allow them to give any feedback with the task at hand. Even if it wasn’t pertinent to our exact question, we wanted as much information as possible. We refrained from taking notes, and focused on the tasks since we filmed the participants’ tests.

Test Measures

As was our lo-fidelity prototyping testing, our interactive testing was focused on user preferences, so we concentrated on self-reporting test procedures, and asked our participants
open-ended questions rather than counting numbers of errors or measuring usability data. Our users provided us with thorough descriptions of their thoughts and expectations during the process, shedding light on essential design oversights, and interface enhancements that were not effectively changed or altered since our previous prototyping stage.

This allowed us to focus on the process data rather than the bottom line data, and because our study was scenario-based, these results were much more beneficial than any raw data would be. Counting and measuring was not our goal for this part of the refinement process, but honest interaction and immediate concerns with our prototype were our emphases.

Testing Results

We received a lot of great feedback from our users. Both Participant A and B really liked homepage at disabuse.org. However, when becoming aware of our host name, the test subjects were not exactly thrilled with the name “disabuse.” While on the scramble for host names, we decided that the double negative could shed light on the notion of crushing harassment and abuse toward LBGTQ youth, but it is now clear that it simply does not mesh with the positive tone of our mission.

When it came to the design of our website, our users felt very comfortable with the environment. They felt welcomed by the colors and ease of use of our web interface, and felt that everything they could need was presented for them. Participant B really liked the “Resources” tab that was provided, and felt that if a suicidal teen was to use alliance, it would be a reassuring option to see that other resources and organizations are out there to help them.

When the participants were asked to use the interface as if they were an Alli, they directed themselves to the Alli login page. They created a username, typed in their email address, and then both were stuck on the “Signing in” screen. This was a huge issue. Neither participant was able to sign in directly from the Alli interface, and the proctors had to manually change the page to the original embedded chat, and ask the participant to login again. The login went through this way, and then we redirected the user back to the Alli interface. This was a huge bug that we did not expect, and had not experienced until user testing. The participants were not as thrown off from the bug as we were, but it was still a unforeseen bump in the road.

Both participants were asked to try to envision themselves as a suicidal teen questioning their sexuality and seeking out alliance as a resource. They were asked to candidly share how they would think they would react to seeing the webpage. Obviously, this involves a stretch of the imagination, but it was as close we could get to testing an actual troubled teen. Both participants provided similar feedback that they think if the chat was fixed, the interface itself was designed to highlight just what the user needed to draw their attention to. They said that if they were in need of help, it would be easy to seek out how to get help from an Alli, and that the Alli backend seemed to encompass great elements to allow well trained and effective Allis.
Interface Revisions

We did not have the need to make an interface revisions after doing our final user testing. We got great feedback on the layout of the website and chat interface, and the participants thought that alliance over was well constructed for its purposes, and served its purpose.

The revisions that we attempted to make were with the chat itself. The problems that most users experienced were bugs in signing into the chat using the interface we created. We tried to go around this problem by linking to another chat login screen, and then sending the user back to the interface. We later realized that going around the problem did not fix much for long, and the sometimes the chats between users would get lost. Accessing the server and database was taking much longer than it should of, and the communication speed was no where up to par. It seemed that the initial stages of our chat, before our customization and added code, was much less buggy than the final code. We sacrificed the functionality of our great working chat for a few bells and whistles, and in the end, it did not seem to pay off as much as we would have liked.

Summary and Lessons Learned

The process of creating this project started with a few hitches. The idea itself is a very sensitive one, so creating an interface dealing with the issue can be like walking on eggshells. We had to interview several different organizations that deal with LGBTQ-identifying teenagers, and David attended a Rainbow Terrapin Training to find some of the resources we have on campus. After interviewing and researching to determine the best interface to implement, we started to test our possible interfaces.

Testing the interfaces also became difficult, because we didn’t know who to test them on. As a group, we decided it was best to have our participants test the Alli portion of our interface - where most of the design elements come into play. Making this decision allowed us to choose our participants based on their interest in LGBTQ-teenagers and their wellbeing, because people will only volunteer their time for Alliance if they have an interest in the subject matter. Choosing random people was interesting, because we would go into lounges and ask students if they were interested in an LGBTQ-related subject. We had some negative responses to this question, but the participants we ended up having all genuinely were interested in the subject, and therefore were more responsive and beneficial in testing.

The actual testing process had some unexpected outcomes. We initially programmed the chat interface and tested it by ourselves and didn’t have many problems, but when it came to testing the participants, the chat would malfunction much more than we expected it to. This showed us that no matter how many times we tested our interface, we learned that you needed a new set of people to attempt to use it so we can get a well-rounded and complete testing of the program.

What we gathered most from this process is that our solution is different and a necessity in our society. Websites like It Gets Better have been successful in the approach of shedding light
on recent LGBTQ suicides and bringing it to the media’s attention, they have not made many efforts to stop suicides from happening. Alliance is an active solution to reach out to those teenagers who need it.

**Website Report**

Designing the website aspect of this project was really quite enjoyable, even under a time crunch. The website fit in really well to our initial plan of our interface. We decided to implement our entire project around the website, and incorporated PHP into our HTML code. We taught ourselves HTML and CSS, using Bootstrap as a guide and its components as inspiration. We took color scheme very seriously, since color is a trigger for mood and emotion. Since our project was aimed at depressed teens, the last thing we wanted was to scare them away with bright colors and rainbows. We streamlined the design of our website, incorporating an “about” section, “resources” section, “deliverables,” and more. We found it very important to incorporate a resources page, mostly because we are practical that if our chat was fully functional, it may not be the solution to ever users problems. We take our mission seriously, and wanted to provide every resource that we could stand by to help anyone that we could. Incorporating the JQuery plugins was much more difficult than we expected it to be, and we spent many hours debugging JQuery code to get the site as close to fully functional as we could. Because we had limited time, we were not able to fully implement everything that we hoped for.

**Appendices**

**Table 1. Interactive Prototype Testing - Negative Incidents**

<table>
<thead>
<tr>
<th>Incident</th>
<th>Rating from 1 - 4 (4 being most severe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant A could not log in at first attempt</td>
<td>3</td>
</tr>
<tr>
<td>Participant B could not log in at first attempt</td>
<td>3</td>
</tr>
<tr>
<td>Participant A could not figure out what the</td>
<td>2</td>
</tr>
</tbody>
</table>
danger rating was exactly for, but knew it was something bad

Participant B didn't know what message would be sent to the user if he clicked “Defer” 3

Table 2. Interactive Prototype Testing - Positive Occurrences

<table>
<thead>
<tr>
<th>Occurrences</th>
<th>Rating from 1 - 4 (4 being most positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant B found the resources tab on their own and</td>
<td>4</td>
</tr>
<tr>
<td>Participant A was able to log into the chat eventually and was able to actually chat with our fake user.</td>
<td>4</td>
</tr>
<tr>
<td>Participant A was able to figure out how to defer the notification successfully.</td>
<td>3</td>
</tr>
</tbody>
</table>

Consent Form

CONSENT FORM:

You will be conducted in a research study for Alliance, a suicide prevention chat application.

This research poses no risks to you other than those normally encountered in daily life. All of the information from your session will be kept confidential, unless you choose to disclose it. Your data will have a number associated with it. After the research is completed, we may save the notes for future use by ourselves or others, but your name will not be included.
Your participation in this research is voluntary, and you are free to refuse to participate or quit the interview and observation session at any time.

If you have questions about the research, you may contact:

- Tanya Dastyar (301) 219 - 3292
- Aymon Fournier (301) 850 - 2503
- David Todd (410) 491 - 5379

You may keep a copy of this form for reference.

The details of this study were explained to me by:

Investigator Name: _______________________________________________________

Date: ___________________

Participant Name: _______________________________________________________

Date: ___________________

**Tasks Script**

Participants were not given a script during our user testing. They were directed to read about alliance on our homepage, and then a proctor brought the participants attention to things that they should be noticing, like the sidebars in the Alli interface.

**References**


