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Advancing Computer Skills for Burmese Refugees in Worcester

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Advancing Computer Skills for Burmese Refugees in Worcester

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Worcester Refugee Assistance Project

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Abstract

The goals of our project were to develop a computer literacy program for the youth of the Worcester Refugee Assistance Project (WRAP) to help them assimilate and prepare for college and future employment, and to create a website for the youth that they use to share their interests, ideas, stories, and culture. To realize these goals, we performed background research and repeatedly visited WRAP to interact with and learn from the youth and volunteers there. We assessed the computer literacy levels of the youth to develop effective teaching tools for them. Through collaboration with various WRAP stakeholders and youth, we created four teaching modules for WRAP that allow its volunteers to teach its youth computer skills, and designed a youth-oriented website for WRAP to use and maintain.

Acknowledgements

We would like to extend our thanks to those who contributed to this project's success. This project would not have been possible without the cooperation of both the youth and volunteers at the Worcester Refugee Assistance Project. We would also like to thank our advisors, Professor Andrew Trapp and Professor Stephen McCauley, for their constant efforts in helping our project move forward and improve. Finally, we would like to thank Meredith Walsh, Kyle Tingley, and Jillian Lindblad for working with us and providing valuable feedback necessary for the completion of this project.

Executive Summary

Refugees are people who leave their own country to seek sanctuary in another country to escape poor living conditions or dangerous environments. They are generally persecuted because of their ethnicity, religion, or race. Burmese refugees, who make up a significant portion of the refugee population in Worcester, are relocated to the US from refugee camps in Burma and Thailand, where poor living conditions make life difficult. These refugee camps were created to provide protection from the war-torn state of Burma. In order to resettle to the US, the Burmese refugees have to go through a difficult process of achieving refugee status in the US. Once resettled, they often find it challenging to cope with the many differences and complications that result from life in Worcester as a refugee.

The Worcester Refugee Assistance Project, commonly referred to as WRAP, exists to help local refugees after the 90-day period after they first arrive in the U.S. The organization offers many tools, opportunities, and teachings to help these refugees integrate into American society. The same applies for the refugee children who are starting to learn a new language and/or starting school. WRAP has after school hours that offer homework help and reading tutors to assist the youth with their educational needs. With this project, we aimed to help the refugee youth adjust to the technological aspect of our society by teaching them to use computers and the internet as a resource to advance their own goals in life. Since these refugee youths didn't grow up with the same opportunities we did, we made a conscious effort to try and teach them the skills that they are lacking and make their lives easier.

The first problem we faced was determining what exactly we wanted to accomplish by the end of the project. From the start, we sought to teach the youth computer skills. This task proved to be too widespread to fully cover in the short period of time that we had. As engineering students, each member had their own unique computer skills so the possibilities were immense. After extensive debate we decided to focus on introductory computer skills that would assist the youth with things like browsing the internet and managing programs on computers. From this decision we devised teaching modules that could be delivered to the youth one at a time to teach them important computer skills. Before we began teaching the youth computer literacy we worked to rectify their computer situation. Exploring the WRAP office brought an untouched stack of donated computer technology to our attention. After a couple evenings of sorting through and testing the donated computer parts, we were able to set up four desktop computers with up-to-date software and internet access. The youth were especially happy about this new development and their interest in computers increased, which made teaching them easier. After sparking the interest of the youth, we had to decide at what times we could teach the youth. Trying to teach the youth during the week proved difficult, so we arranged for structured timeslots during the weekend that proved ideal.

Once we decided on the content for our teaching program and how it would be taught, we considered what we could accomplish with a website for the youth. In the end, we created a website that provides the youth with an interactive online environment to communicate with and learn from each other, and to tell stories, express their thoughts, and more. The website is a secure, friendly place that also contains resources that will help the youth with things like completing homework and staying informed about WRAP activities. During website development, we collaborated with both the youth and stakeholders at WRAP to get their input and feedback regarding the content and layout of the website. We had taken ideas for the layout of the website from the youth, designed the individual pages, and used the information provided by stakeholders to fully flesh out the WRAP youth's personal website.

By the end of this project we had completed several objectives to benefit WRAP and its youth. We improved upon the current computer situation at WRAP, developed and delivered teaching modules that create a computer literacy teaching program for the youth, and designed a website for the youth that they can interact with and learn from.

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1.0 Introduction

Refugees are people who leave their own country of citizenship in order to seek sanctuary in another country to escape poor living conditions or dangerous environments. Refugees escape countries that suffer from natural disasters, oppressive governments, war-torn surroundings, forms of oppression, and atrocities. There are many events and conditions happening today around the world that result in refugees. For example, a civil war has been waging throughout Syria since 2011, displacing over 12 million Syrians to various countries as of December 2015 (Syrian Civil War | Syrian history, 2015). The estimated number of Afghans displaced from their homes is estimated to be over 3.7 million to bordering countries (Niland, 2015). They too were uprooted by war and violence throughout their land and started migrating towards any form of safety they could find. The number of refugee arrivals in the US for the 2013 fiscal year was 69,925 people (Proposed refugee admissions for fiscal year 2015, 2014). Refugees from Myanmar, also known as Burma, are a significant population among the refugees coming to America. Since 2005, more than 73,000 refugees from Burma have resettled in the US (Tan, 2014). The city of Worcester, MA is a common destination for these Burmese refugees.

The Burmese make up a significant portion of the refugees in Worcester, where this project is based. Between 2007 and 2012, 272 refugees from Burma made up the third largest population of the 2,196 refugees that came to Worcester (Fábos, 2015). Multiple ethnic groups fall under the category of Burmese. The majority of the Burmese refugees belong to the Karen people, and the largest ethnic group among resettled refugees in Worcester is Karenni. (Gilhooly, 2014). These refugees are relocated to the US from refugee camps in Burma and Thailand, where poor living conditions make life difficult. These refugee camps were created to provide protection from the war-torn state of Burma. In order to resettle to the US, the Burmese refugees have to go through the long and arduous process of achieving refugee status in the US. Once resettled, they often find it challenging to cope with the many differences and complications that result from life in Worcester as a refugee.

The sponsor for this project is the Worcester Refugee Assistance Project, commonly referred to as WRAP. WRAP's goal is to assist local refugees from Burma in attaining economic independence and self-reliance through things like: English language assistance, family

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mentorship, health advocacy, youth development, transportation, and tutoring (About WRAP, n.d.). WRAP has successfully created a community in Worcester consisting of volunteers and refugees that greatly benefits the refugees by providing them with friends, mentors, services, and opportunities that would otherwise not be available.

This project aimed to increase the computer literacy of the youth at WRAP and to create a website for these youth that allows them to share and develop their interests, ideas, and culture. Several steps were taken to achieve these goals. First, background research was done to outline the challenging situations Burmese refugees face both before and after moving to the US, as well as computer literacy and similar projects to this one. Then came meeting, interviewing, and collaborating with both the WRAP directors and youth. The final step was developing computer literacy teaching modules and creating an appealing, useful website for the youth.

2.0 Background

This section is focused on the background research done for this project. It identifies the problems refugees from Burma face before, during, and after resettling to the United States. First, it goes in-depth on the legal process of becoming a refugee and moving from a refugee camp to America. It provides information about Burma and life in refugee camps. It then discusses the struggles these refugees face after being relocated and explains why computer literacy programs are needed for these refugees to help with the resettlement process. Finally, this section provides examples of similar projects to this one.

Burmese refugees in Worcester are a good target for this project because of their large population. Between 2007 and 2012, Worcester welcomed 2,196 refugees, more than any other municipality in Massachusetts (Fábos, 2015). These 2,196 refugees came from 24 different countries (Fábos, 2015). The three countries that accounted for the greatest number of refugees were Burma, with 30%, Bhutan with 26.6 %, and Iraq, with 16.6 % (Fábos, 2015). In the US, as of June 2013, almost 90,000 refugees from Burma have been resettled; these refugees represent the largest single refugee-group resettlement in the US in the past five years (Gilhooly, 2014). The refugees who arrived in Worcester during the 2007-2012 time frame make up 1.2% of Worcester's current population, and they represent 26% of the 8,468 refugees who arrived in Massachusetts during the time frame (Fábos, 2015).

2.1 Becoming a Refugee

Occasionally, when a country is experiencing difficult times, there are groups of people who are specifically persecuted. The reasons for this persecution are often related to ethnicity, religion, or race. These persecuted people are forced to live in fear, which causes many of them to become refugees. There were "59.5 million displaced people and 19.5 million refugees worldwide at the end of 2014, 14.4 million under the mandate of UNHCR, around 2.9 million more than in 2013." (Facts and figures about refugees, 2014). Refugees are coming from countries like Afghanistan, Syrian Arab Republic, Somalia, Sudan, and the Democratic Republic of Congo to name a few (Facts and figures about refugees, 2014). The registration process to become a refugee is similar whether they are Syrian, Palestinian, or Burmese.

First, it is determined if a refugee's situation makes it so that they are eligible to be classified as a refugee and the determining factors are: "qualified under a designated processing priority, meets the definition of a refugee, is not firmly resettled in a third country, is otherwise admissible under U.S. law" (Refugee eligibility determination, 2013). A refugee admissible under US law is someone who:

"Is located outside of the United States, is of special humanitarian concern to the United States, demonstrates that they were persecuted or fear persecution due to race, religion, nationality, political opinion, or membership in a particular social group, is not firmly resettled in another country. A refugee does not include anyone who ordered, incited, assisted, or otherwise participated in the persecution of any person on account of race, religion, nationality, membership in a particular social group, or political opinion" (Refugees, 2015).

Then a United Nations High Commissioner for Refugees (UNHCR) worker collects identifying information, and registers the refugee with a UNHCR staff member. They are asked multiple questions to put them as close to their family as possible. They are then given identification cards and vouchers for food and housed in a tent (Refugee eligibility determination, 2013). When determining who gets to resettle and where, the UNHCR has to determine if resettlement is necessary and is the right solution. The refugee is allowed to remain in the country indefinitely assuming conditions in their home country don't clear up.

For the actual admittance into a country, a refugee has to go through different processes to apply for "refugee status" depending on the country they apply to; the details vary depending on the country but follows along a similar process to that of the US. The US requires that a refugee has a referral to the US Refugee Admissions Program (USRAP) for consideration as a refugee (Refugees, 2015). The documents needed for these referrals are found in US Embassies or in the UN High Commissioner for Refugees where they are to be filled out and sent to the US; but this is not the stage in which refugees are considered (Bray, n.d.). A US sponsor of a resettlement program is sent to the country of the sender to interview them and their case to both ratify and determine their eligibility to become a refugee. The sponsor reviews the severity of the refugee's persecution, for this determines their priority for processing (Refugees, 2015). If they are approved as a refugee, the applicant will receive a medical exam, a cultural orientation, assistance with travel plans, and a loan for travel to the United States (Bray, n.d.). After landing on US soil, the refugee process is not yet finished; the next two years are rather important for the resettlement process. The refugee is now in a new country and has to adjust to a new and unfamiliar lifestyle along with having to learn another language.

After successfully and safely landing in the US there is more paperwork to process. In the first year the refugees are given cash assistance and job authorization from the government, and temporary living arrangements by the resettlement sponsor that they met with before (Refugees, 2015). Within this time, they may fill out more forms requesting that their family be processed and escorted to the US, file for permanent housing, or apply for a green card (Refugees, 2015).

2.2 The Burmese Homeland

The rise of the refugee population inside and escaping from Burma is the result of longterm social and political turmoil within the country and the government's violent and underhanded methods to stay in power. The conflict in Burma began after Burma gained independence from Britain in 1948. The nation did not have a unified political system but individual kings that resisted the government. The kings rallied the individual minority groups such as the Mon, Pa-o, and the Karen to fight for their independence and right to govern themselves. This turmoil pitted the individual resistances against the government's army. The political turmoil escalated when the Chinese Nationalist Party moved into Shan State, potentially creating a proxy war between China and the U.S on the Burmese soil. To fully understand and get to know a refugee, it is imperative to know the situation they are coming from and what drove them away from their homes (Williams, 2011).

This potential crisis led the government to negotiate with the individual minority leaders who had joined a political party to work towards a unified government in an effort to protect the nation. Despite the negotiations being under the guise of trying to protect the nation, there were still internal tensions between the government and the minority party. To solve this, the first elections were held to choose a leader that could keep the peace. As to the question of who would take up this role in the Burmese government, each party had their preferred candidate but the national army had a lot more influence in the outcome. The national army showed their stance within the quote:

"What we dread most is that unscrupulous politicians and deceitful Communist rebels and their allies may take advantage of these flaws, weaknesses, contradictions, and inadequacies in the Constitution and bring about in the country gangster political movements, syndicalism, anarchism and a totalitarian regime" (Williams, 2011).

This influence showed through after the voting and the previous prime minister U Nu was re-elected. Prime Minister U Nu sided with the local militias and the police in the party that opposed the army before the election. Tensions had arisen between the two parties over which side would run the country more efficiently. Political talks occurred between U Nu and the army about the rising rebellion and U Nu agreed to hand power over to the army. After the army held the election and U Nu was re-instated, the Union party fell apart and U Nu started rescinding the policies from the previous government regime that sought to care for the people. This caused discord with the citizens and led to the army forcibly taking control of the government under the pretense that the military was the only force that could keep Burma together. It was from then in 1962 that the military regime came into place under the rule of a totalitarian general Ne Win (Williams, 2011).

Even after decades, not enough changes to the regime had occurred to stop the infighting. Under the 2008 constitution, which went into effect in 2011, Burma is demarcated administratively into seven predominantly ethnic nationality–populated states and seven majority Burman regions. Each state still has armed conflict with the army and individual minority groups have been pressured for different periods of time. The Karen have been affected by these armed conflicts since 1949 and did well in keeping their people within their territory under the ruling of an organization called the Karen National Union. This union, like all others, did not last forever, and when their fortunes collapsed in the 1990's it had a domino effect. The Karen National Union (KNU) had put forth policies in its decline that scattered over 500,000 people into refugee camps along the Thailand-Burma Border. Any armed forces the KNU oversaw separated into splinter cells and resorted to violence for personal gain or to combat the Christian domination. No matter the reason, the civilians have limited options when it comes to securing their family and livelihood (South, 2012).



Figure 1: Karenni Child Soldier, Karen National Union (Hoosen, 2009)

In high-conflict areas the Burmese people have a long list of threats that they have to live through daily with few ways to protect themselves or survive at all. Most threats are physical such as murder, rape, torture, or forced labor. But others are towards their property; many of their housing and possessions are looted, taxed or destroyed outright. The most serious of these violations are done by the state agents or military, but many are perpetrated by the resistance forces as well. The civilians are usually extorted for "protection" in these areas, if not for money then the forced recruitment of males into whichever side is asking for payment or other favors. In many cases individual families have to pay tribute to multiple factions to ensure their own survival. Living in a state of near constant turmoil, the Burmese people had to forgo a lot of fundamentals that we are accustomed to in our lives: culture, religious freedom, and most importantly, education. These refugees have been forced to lose much of their intellectual foundation trying to escape from their homeland (South, 2012).

2.3 Life in a Refugee Camp

Unfortunately, living in a refugee camp is a necessity for the 19.5 million refugees worldwide. A common thought among refugees is: "Life is never easy growing up in a refugee camp. It is a life of poverty, limited access to education, lack of access to sporting or recreational facilities and few opportunities. Hopelessness and despair abound" (Wilderman, 2009). Refugees are not given the same opportunities as other people and they have less resources for shelter, food, and education. The children suffer greatly since some do not know life outside of the refugee camps. In most cases, refugee camps are safer than a refugee's home country. But there are instances of refugee camps being raided, which causes the camp residents to always be wary and on high alert. Being in a refugee camp does not completely rid refugees of the threats from beyond the camp boundaries.

Burmese refugees living in refugee camps do so because of the war between rebel forces and the Burmese government. The Burmese minority started living in refugee camps along the border of Thailand in 1984. These refugees were not allowed to make permanent structures, grow crops, or raise animals; but they were still able to do these things since rules and regulations were not strongly enforced. As time went on, operation of the camps became stricter (Bowles, 1998).



Figure 2: Karenni camp, Mae Hong Son province (Bowles, 1998)

The government in Thailand made life for refugees very difficult. In the refugee camps, they were expected to live off of what was provided for them by the United Nations (UN) or whatever was found in the surrounding forests. The refugees were not allowed to do anything to make money. "It is so strict to live here. There is nothing to do. I am not allowed to go outside the camp. There is no job, no work. So much stress and depression. I feel that I am going to go crazy here." (Refugee camps in Thailand, 2015). The schooling in the camps was inferior since the teachers were fellow refugees in the camps. The refugees were also responsible for the physical layout of the camps. They had to learn to be self-sufficient in their communities.

This system continued until there were attacks from the Burmese government threatening the refugees. "Until 1995, refugees on the Thailand-Burma border lived in village-type settlements and were allowed to travel outside the camps to get food and shelter materials. Camp life changed dramatically in 1995 after the Democratic Kayin Buddhist Army (DKBA) attacks; the village-type settlements were merged into large, sprawling camps that became increasingly dependent on outside aid" (Refugee camps in Thailand, 2015). Since the attacks, the refugee camps have become one large camp with greater restrictions, making it more difficult for refugees to become self-sufficient. This was done so that the refugees could be protected adequately and encouraged to leave the country. After the restrictions were being enforced there became little reason to go to refugee camps except for the fact that it could protect them from the Burmese government. The refugees might have been safer from the Burmese government but they weren't completely safe; if they broke any of the strict regulations in place they could be detained or deported (Refugee camps in Thailand, 2015). "There are even reports of refugees been found killed outside the camp fences under mysterious circumstances" (Refugee camps in Thailand, 2015). The reports of refugees being found dead outside made restrictions stricter and had them scared to leave the camps.

"Living in the camp is similar to living in prison because I can't go outside or make my own decision. I can commute only in the camp. The camp is surrounded by barbed wire. If we go outside of the camp, Thai police will arrest us. In the long run, it affects not only my physical but also my mental health." (Refugee camps in Thailand, 2015).

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Regulations included not being allowed to generate income or even leave the camp. Refugees have less control over their own lives and are forced to obey the camp guards, making them lose motivation. "Life in Mae La, like any refugee camp, is characterized by a stifling sense of frustration and powerlessness." (Kenny, 2011). The refugees face many demoralizing hardships since the merging of the camps. Their diets contain just enough food for them to stay alive but don't provide key nutrients required for good health. There is a lack of protein, fresh fruits, and fresh vegetables which causes vitamin deficiency and anemia. They have to pick up their rations in person or not receive anything. They are given "a monthly ration consisting of 16,000 g of rice, 1000 g of fermented fish paste, 1500 g of hulled mung beans, 1 L of soybean oil, 330 g of iodized salt and 125 g of dried chilies" (Kemmer, 2003). Since they are continuously moving around they do not have time to grow and harvest crops, causing there to be less supplemental materials for their diets. Not being able to grow proper crops nor go into surrounding jungles causes malnourishment to spike. However, being in a refugee camp means there is a chance for relocation into a safer, more developed country, like the United States.



Figure 3: 'Temporary site,' Kanchanaburi province (Bowles, 1998)

2.4 The Challenges of Resettlement

Burmese refugees are relocated to Worcester to escape persecution and horrible living conditions in refugee camps. However, once they arrive they are faced with a series of entirely new problems to solve and difficulties to overcome in order to lead successful new lives. Differences in environment, finances, housing, food, culture, health care, transportation, recreation, socialization, and language all make the transition to American life difficult and foreboding. Unexpected challenges can also cause disillusionment during resettlement. Understanding the process and obstacles of beginning a life as a Burmese refugee in Worcester helps to understand the refugee experience and what tools they need to live better lives.

The primary difficulties in the environment of a place like Worcester for Burmese refugees are challenges related to social integration and acculturation. Some refugees have expressed concerns about there being few gathering places, which makes it difficult to spend time with and meet others (Haley, 2013). A Karen refugee mother stated "When we got here we didn't know anyone...We all felt down when we get here at first...It would be great for some new people to have some friends and have some foundation...It would be great for us to get some help from people who already have knowledge to come and teach us" (Mitschke, 2011). It can be reasonably concluded that the refugees find it difficult to get help from others and make new friends. Additionally, they are afraid that if they travel too far from home they will not be able to make their way back; as a result, they wish for things like simple maps of the area they live in (Haley, 2013). The various loud noises, primarily traffic, that refugees hear while living in the city are uncomfortable and annoying compared to the sounds, or silence, they were used to in refugee camps. Difficulty sleeping due to noises coming from the road, and the inability to complete certain noise-sensitive tasks because they can't find a quiet place to work, are two things Burmese refugees have a hard time with while living in Worcester (Haley, 2013). For most refugees, particularly recently resettled refugees, moving to a different, more favorable setting is not an option, making the environment they live in a chief issue during resettlement.

The most difficult challenge for the Burmese refugee families in Worcester is probably lack of financial resources. Not having enough money and not being able to get a lasting, wellpaying job are common concerns among the refugees. One grandfather, living in one apartment with his three children and two grandchildren, said that they don't have the money to get enough food because of their low income and many bills to pay (Mitschke, 2011). A lot of the refugees that WRAP assists participate in seasonal work, which leads to an inconsistent income. Additionally, the need for money causes parents to lean heavily towards their children getting jobs after high school instead of pursuing a higher education. The refugees express a need for assistance in finding available employment and an interest in participating in job training programs so that they can learn skills to help them get higher-paying jobs (Mitschke, 2011). The language barrier between refugees and employers also plays a role in the lack of job opportunities for the refugees (Mitschke, 2011). When they lived in refugee camps, the refugees recall working hard during the day, and sleeping well at night (Haley, 2013). They did not experience the stress of paying bills like they do now and had more worker protection (Haley, 2013). Refugees with employment are grateful for their jobs, but are often dissatisfied with the kind of work they do, their long commute, and the low pay they receive (Mitschke, 2011).

Finding an affordable and safe place to live is another difficult hurdle for refugees. They are usually charged rent and utilities immediately, and are given minimal assistance by resettlement organizations in regards to the knowledge of paying bills and managing a household in America (Kenny, 2011). It is not uncommon for refugees to fall behind in their payments (Kenny, 2011). Additionally, some refugees overpay because they don't know about discounts that are available to them as a result of their low incomes (Kenny, 2011). Apart from the financial aspect of housing, refugees are often unaware of certain practices tenants are obligated to do or not do. A prime example of this is explained in the following quote taken from a study done on Karen resettlement: "Other residents in the apartment complexes had numerous complaints about the Karen refugees, such as the odors produced by Karen cooking, the congregation of Karen in large groups in the hallways, the flushing of disposable diapers, which caused plumbing problems in the building, and the disposal of prohibited items in the apartments' dumpsters" (Kenny, 2011). Due to their lack of finances and knowledge, the refugees usually end up living in cheap, crowded, run-down apartments that they can't properly maintain.

Overall, Burmese refugees that recently resettled find it more difficult to find affordable, healthy food options in America than in a refugee camp environment. In a refugee camp environment, Burmese refugees grew or collected their own vegetables all year long. Though rarely eaten, meat was of higher quality. Additionally, they were given flour, rice, fish paste, salt, chilies, cooking oil, and beans. In America, there are many more options for food, but most of them aren't healthy foods, particularly the affordable food options. Burmese refugees generally don't find the food in America to taste as good as the food they are used to, and they often don't eat foods they are not used to eating. As a result, it takes time for these refugees to find food that they are comfortable eating. In America, going to a store and buying food may take less time than growing and collecting food in a refugee camp. However, the differences between these two practices can still be jarring to refugees, and obtaining the money to be able to buy food at stores can be even harder for these refugees than growing and collecting their own food was for them. All of these factors contribute to the struggle Burmese refugees face when selecting, buying, and eating food in Worcester. (Haley, 2013)

The Burmese refugees have a difficult time preserving and sharing their culture in their new living environment. This is due primarily to how much time and effort goes into learning the new ways of America. There is little time left over for celebrating the ways of their origins. Meredith Walsh, the executive director of WRAP, expressed concerns about the refugees who visit WRAP losing their culture. She mentioned that one youth, in particular, no longer felt proficient enough in his native language to comfortably translate it for others. However, she also mentioned how the WRAP youth have an interest in sharing and preserving their culture.

The methods of learning about health and affording health care are different in America than they are in a refugee camp. Burmese refugees in a refugee camp were exposed to public service announcements daily, health workers located in the camps, and magazines on common health concerns (Haley, 2013). Health care in America is more complicated and difficult to obtain. Burmese refugees want to know about common health problems in America and how to avoid them, but they don't find it easy to get this information (Haley, 2013). They want to know more about what foods are fattening and what to do when their children become ill, but they don't feel like they have the means of getting advice for these sorts of things in an urgent but non-emergency manner (Haley 2013). On top of struggling with learning about health, the refugees face another barrier in the form of affording health care. One Karen interviewee said "I believe that we really need help in health care systems because the cost of it is really high which

we can't afford. It might not be free but should be lower for us so we would be able to go see doctor and not worry for the bills later in our lives" (Mitschke, 2011). Costs associated with checkups and preventative care cause confusion and anxiety among the refugees, even those with employer-provided insurance (Mitschke, 2011). Also, a refugee's limited understanding of English and the scarcity of translators play a big role in health care difficulties (Mitschke, 2011). Often, resettlement organizations schedule medical appointments for refugee families, but then fail to communicate the necessary information for these appointments clearly to the families, particularly because letters written in English are difficult for the refugees to understand (Kenny, 2011). As a result, refugees often show up to appointments without the necessary documentation, such as insurance cards (Kenny, 2011). Furthermore, refugees have a difficult time communicating with medical personnel because of the limited effectiveness of telephone translation services (Kenny, 2011). Even citizens of American argue about health care regularly and in multiple different ways, so it's easy to understand how refugees would have a very difficult time with it all.

Another barrier faced by Burmese refugees in Worcester is transportation, that is, the ability to get to a place they need to be in a reasonable amount of time. For these refugees, who relied solely on walking to get around when living in refugee camps, learning about public transportation takes time, and paying for it is difficult. They are forced to rely on others for rides, which deducts from their feeling of independence and isn't as reliable as being able to transport themselves (Haley, 2013). When walking physically is an option of getting around, it is dangerous due to traffic and other nightly hazards (Haley, 2013). This significantly reduces the amount of time refugee children spend playing outside and meeting new children because their parents don't feel safe letting them go out alone (Haley, 2013). This sentiment is expressed well through the following quote by a Karen interviewee: "The kids go to school up in the mountains by themselves and the parents wouldn't have to take them because there's not a lot of cars and motorcycles that they have to worry about, but here they worry about that and they have to take the kids to school and then once they come back from school they usually just stay in the apartment" (Haley, 2013).

Participating in social interactions and recreational activities was easier in refugee camps than it is in America for the Burmese refugees. This is due to their limited transportation, the scarcity of social gathering places, and their inability to speak English well. Interacting with other non-refugee citizens, even in a casual, social manner, is difficult because of the language barrier. This leads to an enhanced feeling of isolation. In the Burmese refugee camps, group social activities were common, all ages participated in games together, and sharing memories or telling stories was an effective means of passing time and having fun (Haley, 2013). One refugee summarized this by saying: "The kids played a lot. They wake up, if they are not going to school they would just go to the yard and play, which is something they can't do here" (Haley, 2013). Burmese refugees have reported that entertainment in America, such as television, is more passive, and more time is spent indoors and alone (Haley, 2013).

A Burmese refugee's inability to communicate effectively in English is a significant barrier to them leading a successful life. The refugees view speaking English as the key to unlocking opportunities in employment, education, health, and financial advancement (Mitschke, 2011). Being unable to speak English well leads to feeling lost, confused, and frustrated (Mitschke, 2011). One refugee said "I think if we have English and it's free it would be so great for us to learn English and help us get jobs and feel more positive about our lives" (Mitschke, 2011). This statement is one of many examples of refugees expressing the difficulty they have learning English as well as finding the time and money to be taught English. It is duly noted that several of the major issues mentioned above that the refugees face refer to the language barrier as a catalyst to the problem in some way.

Refugees often develop expectations about what life in America will be like for them once they resettle there. Disillusionment occurs when these expectations aren't met and the struggle of living in America is greater than expected. In an interview, one Karen refugee said that before resettling, he was afraid of getting killed, but in America, he struggles to find a job and money to pay the bills (Mitschke, 2011). This refugee vocalizes the idea that refugees escape one evil, such as persecution, only to be faced with another evil, like unemployment and bills. Another Karen refugee interviewee spoke about being told that he would receive much aid from others during the resettlement process, but in reality, he felt that he didn't receive any significant assistance as of when he was interviewed (Mitschke, 2011). Having expectations, hopes, and dreams crushed can be emotionally taxing by itself, so when disillusionment gets thrown into the already toxic mix of things to learn and obstacles to overcome, Burmese refugees can get very bogged down and distressed.

The US government has programs to temporarily assist refugees during the resettlement process, but it largely falls on volunteer organizations, like WRAP, to provide refugees with the knowledge and support they need to survive the many complications involved with living in America. Eventually, volunteers take over the tasks the government related organizations are designed to do, such as schedule medical appointments for the refugees (Kenny, 2011). But the volunteers also work to help the refugees in numerous other ways that the US government is currently incapable or unwilling to do. These include providing financial education, transportation, English lessons, assistance with homework for children in school, a place to socialize and meet new people, and more. Over time, with all the help they receive from volunteer organizations, refugees adapt successfully to life in America; but it is still a long and slow-moving process, with room for growth and improvement.

2.5 The Importance of Computer Skills

Computers are integral in education, business, personal life, and so on. Devices such as laptops, tablets, and smartphones are evidence of the increased prominence of technology. Access to "information technology" tools is considered important in education and professional development today (Torralba, 2014). However, while proficiency in computers is generally expected to be known, it is not something that is usually taught or assessed. Many universities and other post-secondary education institutions will test on English and mathematics, considering them important educational foundations. However, schools will not test on computer skills, which are arguably just as important as skills in reading, writing and arithmetic (Hoar, 2014). The cause can be rooted in traditional understanding of an average student's computer skills. Many universities will either assume that students will know all the computer skills they need, or they will learn the skills they need through trial and error (Hoar, 2014).

Through computer use, many refugees and immigrants find it much easier to become accustomed to life in the United States. Many foreigners come to the US with no knowledge on the expectations of living in the United States and with no relatives or close friends to help them figure things out. However, with the advent of the internet, this information is readily available to anyone. For example, three brothers who are refugees from Burma used the internet to find explanations to a wide variety of problems, "Information about procuring driver's licenses, accessing public services, obtaining citizenship applications, and learning about immunization requirements for school attendance, and employment opportunities were just some of the types of information I observed the brothers sharing." (Gilhooly, 2014). Computer literacy is also helpful when trying to communicate with large institutions, such as courts and schools.

Many millennials can attest to how computers have already obtained a regular presence in classrooms and homes. The average American student uses Microsoft Word to type papers for English and Microsoft PowerPoint to prepare presentations. Libraries are often equipped with an abundance of computers for students to do research on. Most high school students are proficient in using computers to complete schoolwork. The majority of assignments are typed and internet resources are used regularly for homework help. Websites are even implemented by some schools that allow teachers to post their homework assignments online, allowing parents to be aware of what their kid(s) need to do for school every day. Without reliable access to a computer, it seems difficult for students in America to meet the expectations of their teachers. Getting a late start in learning how to use computers makes it difficult for students to catch up with their peers and complete all of their school work efficiently.

Refugees who have moved to the United States will have a hard time adjusting to their new lives. Access to computers makes this process easier in many ways. Firstly, it provides a way to communicate with old friends and family regardless of location. "Soon after gaining Internet access, the brothers created Facebook accounts and actively sought out friends and family back in Thailand and those who resettled in the United States and other countries." (Gilhooly, 2014). The ability to communicate with people they knew from refugee camps and from home is beneficial to their mental well-being. The physical barrier that separated refugees from their friends and family is now surmounted, and they can share the resettlement experience from across continents. Furthermore, even in isolation, refugees can create digital communities that offer support and camaraderie.

Another way that computer access helps with resettlement is how it promotes ethnic solidarity. The Karen are able to connect with other Karen in Thailand refugee camps, across many nations, and, on a smaller scale, to Karen still living in Burma (Gilhooly, 2014). These online communities share stories and photos that highlight the ongoing strife in Burma as well as maintaining culture and heritage. Mostly passing on traditions through word-of-mouth, the Karen have used online spaces to speak of their traditions (Gilhooly, 2014). This is critical in preserving cultures, as this information is now profoundly more accessible to anyone interested in the culture.

2.6 Similar Projects

Before developing a concrete plan on how to educate the WRAP youth in the area of computer literacy, it is important to understand some of the previous work done in this field. Learning from similar projects opens up the opportunity to adapt the plans for this project based on this research in order to achieve the best possible results and avoid "reinventing the wheel." The sources we consider include scholarly works, regional volunteer programs, and international efforts.

A study with the purpose to "explore the social and cultural uses of digital literacies by adolescent immigrants to cope with their new lives in the United States" was done in 2013 by Daniel Gilhooly and Eunbae Lee. They studied and interviewed three Karen brothers for two years, utilizing data collected from over 120 visits, and reported findings involving "the ways in which these adolescent's digital literacy skills serve them and their family throughout the resettlement process." This study serves as a guide to understanding how and why Karen refugees utilize computers and other internet-capable devices and what level of understanding and competency they maintain with these devices. It also contains knowledge about how to observe and study refugees in a trustworthy and respectful way (Gilhooly, 2014).

Refugee Focus is a program similar to WRAP. It opened in 1982 in Phoenix, Arizona and in 2003 created a second location in Tucson, Arizona. It has resettled over 15,000 refugees between the two sites. Refugee Focus assists refugee resettlement by teaching them things like cultural, employment, and transit orientation, English, safety, financial literacy, nutrition, health and wellness, and computer skills. Their computer skills program focuses on teaching refugees the basics of searching and applying for jobs online, as the organization puts a strong emphasis on employing the refugees it works with (Who we are, 2014).

RefugeeOne is a refugee resettlement agency founded in 1982 that operates in the Chicago area. The primary focus of this organization is to assist refugees in becoming independent and self-supporting members of their new communities. Each year, RefugeeOne assists about 2,500 refugees and immigrants with things like: finding housing, learning English, acclimating to American culture, applying for citizenship, securing employment, obtaining medical care, developing family strengthening skills, and developing computer and job readiness skills. Their computer training services involve keyboarding, Microsoft Word, and online job search and application (How we help, n.d.).

The Refugee & Immigrant Assistance Center (RIAC), formerly known as the Somali Women and Children's Association, was founded in 1993. It is a "community-based, non-profit, grassroots human service agency that provides comprehensive services to refugees, asylees, and immigrants as well as the larger community." RIAC's main office is located in Boston, Massachusetts and it has two other locations in Worcester and Lynn, Massachusetts. The primary services RIAC performs are: refugee resettlement, post-resettlement support services, asylee case management, counseling, community outreach and education, and other social services. The organization receives state and federal funding in order to resettle refugees during the 90-day period after their arrival. RIAC resettled over 125 refugees from several different countries in the 2009-2010 fiscal year. RIAC also hosts events and forums in order to educate refugees about a range of subjects and provides support, education, and training to parents and teachers (RIAC, 2012).

Of course, many refugee programs exist outside of America to assist refugees beyond simply helping them survive. One of these groups is the United Nations High Commissioner for Refugees, which seeks to improve the lives of refugees in refugee camps in multiple ways such as educating them.

The largest camp that the group is working with is located in Dadaab, Kenya, with a population of 500,000 refugees who are in need of help. The group provides food and additional supplies to the refugees, but also seeks to educate the 80,000+ youths that are there. Education in this makeshift environment has presented plenty of hurdles for the volunteers to overcome. Conventional teaching methods work in a classroom environment structured around small groups of children in separate rooms and with a proper infrastructure. In this case there is no infrastructure whatsoever and there are other dilemmas with the students such as illiteracy, language barriers, and students dropping out of the different schools. This has led to a radically different school structure that solved some of these issues (Education in refugee camps, 2013).

To get such a large group of students together and get them willing to learn is a difficult task, but two major changes altered the way that the people got their education. The first change was the introduction to computers and portable devices. This brought the vast amount of information and education straight to them. This also allowed for quality education in a safe environment, which many of them never had before. The second change was planning and constructing the actual project with the members of the refugee community. These meetings included the parents, teachers, staff, and even the students to construct all the aspects of the project, ranging from internet access to training in technology. Getting all the people together created solutions, got everyone involved, and increased interest in the overall project (Education in refugee camps, 2013).

3.0 Methodology

The goal of this project was to help the Worcester Refugee Assistance Project (WRAP) teach to its youth, who have come to Worcester as refugees from Burma, computer skills that will help them better adapt to the current technology-based society and prepare them for future endeavors like attending college and starting a job.

There were four primary objectives for this project:

- Identify the need for and interest in using computers among the WRAP youth.
- Develop and implement teaching modules designed for teaching the youth computerskills and computer safety.
- Work alongside the youth in the development of a website dedicated to connecting the youth by sharing their interests, ideas, and culture.
- Present the teaching modules and the website to WRAP along with instructions on how to use them.

This section outlines each of the four project goals and describes, in-depth, how they were accomplished and what specific purposes they served, including the benefits they provided for the WRAP youth.

This project involved working with the Worcester Refugee Assistance Project, and specifically the youth involved with the organization, who are between the ages of 6 and 13 years old. The project took place between September, 2015 and March, 2016. Initially, research was done on a variety of topics involving refugees, computer literacy, and WRAP. Afterwards, personal visits to WRAP and interviews with the youth were used to gather information. It was important at WRAP to utilize all of the tools at our disposal to produce the most rewarding outcome possible. Therefore, we spent time to improve the computer area that we would be using to interact with and educate the youth. To further the benefits of this project beyond the initial implementation, four teaching modules, located in Appendix A, were left with WRAP that can be used to teach the current and future youth of WRAP about computers and the internet, and introduce them to the WRAP youth website. Additionally, instructions on how to update and maintain the website were left with the WRAP directors.

3.1 Meeting and Learning About the Youth

To achieve the project's overall goals, we visited WRAP regularly for a couple of months and engaged with the youth. We accomplished several necessary tasks to successfully interact with and learn from the youth. First, we got to know the youth to gain their trust and understanding. Then we identified their ability to use and knowledge of computers. Next, we discovered why the youth typically use computers. Finally, we considered how the youth may benefit from a computer literacy program and adjusted our project goals based on the information collected from them.

Our background research assisted in our understanding of the youth before meeting with them in person. Having an idea of what their lives are like ahead of time helped us to more quickly understand them, which led to faster-developing and more intimate bonds with them. Visiting WRAP, meeting the youth there, and engaging in conversations, sharing stories, playing games, and doing other activities with them is how we genuinely built relationships with them. The volunteers at WRAP often assist the youth with their homework and read with them. These are two examples of the activities that we actively participated in with the youth in order to have them feel comfortable around us. Additionally, we integrated computers into the youth's homework and reading activities wherever the integration was beneficial. While interacting with the youth, it was important for us to be aware of sensitivities that they may have because of the horrific things they may have been exposed to in refugee camps. This prevented us from upsetting the youth or reminding them of bad memories. From all of this, befriending the youth at WRAP was a quick and easy process.

We also accurately identified the computer literacy level of the youth in order to fully understand their ability to use a computer and navigate the internet. Due to the large age gap between the youngest and oldest of the youth we interacted with, it was important to keep in mind the potentially massive difference in knowledge of and practice with computers between the youngest and oldest youth. Observing the youth interact with computers was the first method by which we learned how they typically use computers. Noticing things like how frequently they use the computers, how long each of them sits down at a computer, how fast they can type, what websites they visit, and whether they use advanced tricks, like keyboard shortcuts, all contributed

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to our understanding of the youth's computer literacy level. In addition to observing the youth, we asked them questions about computers to learn, more specifically, what they know.

Further interactions and conversations with the youth were required to identify their specific needs and interests regarding computers. We learned what the most popular aspects of computer use are among the youth. Additionally, we asked the youth to complete an online survey that provided us with information on their access to computers, what they do on them, how frequently they use them, and how familiar they are with popular websites. We created this survey using Survey Monkey and it can be seen in Appendix C.

From learning about the youth's level of computer literacy and how they currently use computers, we generated a plan to increase their knowledge of computers and teach them how to do the things they enjoy doing on computers more effectively. Overall, the interaction with the youth to obtain their feedback and ideas was very important for every step of this project; a give and take on both sides was the most beneficial for everyone. The two main outcomes of this objective are the ability to effectively and comfortably interact with and learn from the youth and a record of important information obtained from interactions with the youth regarding their computer literacy levels and interests.

3.2 Developing Teaching Modules on Computer Literacy

One outcome of this project is the development of a computer education program comprised of lesson plans that teach basic computer skills and computer safety to the youth of WRAP. The program teaches the youth some computer terminology, how to safely and efficiently surf the web, how to keep computers safe from viruses and scams, how to manage programs on computers, and other abilities and tricks that they do not already know. The program incorporates examples, visualizations, interactions between teacher and student, and hands-on experience. Before their completion, we taught these computer literacy lessons to the youth and drew from both our experiences teaching and the reactions of the youth learning to adjust and perfect the lessons.

We began this project being uncertain of how familiar the youth are with computer terminology. It was important to teach the youth proper terminology so that they can communicate effectively about computers and the internet. Knowing these terms also advanced their general computer knowledge and increased their interest in learning about computers. Some of the terms we defined for them are: operating system, program, virus, scam, antivirus, ads, web browser, tabs, search engine, link, URL, bookmarks, history, and storage.

First, we taught the youth about computer viruses and how they can protect computers from them. This involved showing examples of computer viruses and antivirus software. The youth were taught how to obtain and use antivirus software properly so that they may identify and remove viruses from computers. The youth were also taught how to avoid advertisements on the internet. Additionally, the youth were warned about scams and suspicious people on the internet and taught how to avoid them. Having most likely not yet experienced the true horrors of computer viruses, scams, data theft, and other misleading and dangerous content on the internet, the youth were told about and shown examples of the worst case scenarios that occur when falling victim to these things.

Next, we taught the youth how to use the internet in a knowledgeable, safe, and effective manner. Teaching them about web browsers and search engines was the best place to start, since they are fundamental in accessing the internet and finding desired information and websites. The youth were taught basic and some advanced features of web browsers, such as home pages, bookmarks, history, downloads, settings, keyboard shortcuts, and extensions. The same goes for

search engines. We showed the youth how to get the most useful and relevant search results from search engines. Getting the youth to understand the scope of how the internet can be used was important. For instance, the internet is utilized for information, music, videos, pictures, communication, entertainment, games, shopping, and more. It is unlikely that the youth presently explore all of those categories on the internet. This teaching program allows the youth to access areas of the internet with which they are both familiar and unfamiliar in simple and efficient ways.

Finally, we showed the youth how to manage programs on computers. Explaining precisely what a computer program is and does was a fitting place to begin. We showed them how to install programs onto computers and how to uninstall programs from computers. We also explained how to find the list of programs on a computer and details about each program. It was important to include warnings about dangerous and unwanted programs while teaching these lessons.

We were prepared to adapt our teaching program based on the current knowledge of the youth being taught. We also made sure to be confident and consistent with our teachings so that the youth trusted the important information that we told them. From pooling together the data we obtained from observing and interacting with the youth, our own ideas of what is important to teach the youth, and our research of other computer literacy programs, we constructed a teaching program that teaches the youth everything they need and more that also falls in line with other computer literacy programs around the country.

3.3 Youth Website Development

In addition to teaching them computer literacy, we aimed to expand the online opportunities of the WRAP youth by creating a website designed specifically for them. To accomplish this, we utilized the youth's ideas and feedback to create a website that empowers idea-sharing by allowing the youth to communicate with each other and express their thoughts, interests, and creativity. The website is a secure, friendly, and interactive environment for the youth. It contains resources that will help them with things like completing homework and staying informed about events and activities at WRAP.

The website also provides the youth with a platform that they can use to tell their own stories and relay information to others. The website is intended to be a cultural hub for the youth, where they learn more about their Burmese culture and cultivate their cultural backgrounds. Due to their relocation to America at such a young age, they may not know much about their own culture, which is why encouraging the youth to incorporate cultural aspects into the website could prove very beneficial. Family members of the WRAP youth are also able to view the website to look at what is being shared and discussed. Feedback from family should add more to the information on the website regarding cultural experiences and traditions. Ideally, the WRAP youth website will allow for the revival and education of their culture that could even be used for future generations.

To implement the most user-friendly and useful website for the youth, we worked with them regularly during its development. Showing them examples of websites similar to what we envision and getting their feedback on them was a good place to start. We set up an activity that allows the youth to give us ideas for what the website should look like and contain. We collaborated with them on things like the content and layout so that they agreed to and understood what was being done. It was important to keep the youth interested in the website throughout its development. In addition to youth input, we obtained feedback from WRAP directors regarding the website at all stages of the website's development. Collaboration with the directors and youth at WRAP resulted in many new ideas for us to utilize during the development of the website.

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3.4 Delivering the Teaching Modules to WRAP

The teaching modules that we created are a resource for WRAP that combines the teaching program we developed with instructions for the youth on how to use the WRAP youth website. The teaching modules allow WRAP volunteers to increase the youth's computer literacy and teach them how to use the website to its full potential. They contain instructions on what to teach the youth and guidelines on how to teach them. We had a general idea of what to include in the teaching modules from the beginning, but it required the full assessment of the youth's current knowledge and interest to determine all of the details that were incorporated into the teaching modules.

Turnover in volunteers and refugee youth at WRAP over time is expected. The teaching modules make it easy for new volunteers to teach computer literacy to new youth. Our initial draft of the teaching modules consisted of many lengthy, detailed paragraphs about teaching the youth. We then worked to create more compact and user-friendly material. We compressed our original content into something more readable that still outlined all of the important teachings and examples. The teaching modules are colorful, concise, and easy-to-read pages that provide the user with all the necessary material for enhancing computer understanding among the youth.

4.0 Results and Findings

We visited WRAP regularly over the course of six weeks, resulting in 13 total visits that each lasted approximately one and a half hours. The dates of these visits and a brief summary of what was accomplished each day are shown in Figure 4. During these visits as well as the time in between, we pursued the goals laid out in the Methodology of this report, along with other objectives that were developed along the way. First, we met and befriended the youth. Then, after improving the computer setup at WRAP, we collected data about the youth's computer literacy level by observing, interviewing, and surveying them about their internet experiences. Having a strong, positive relationship with the youth helped tremendously when working and collaborating with them. We identified common trends among the youth so that we could use this data to obtain the most important and relevant information for the project. Recording interesting quotes and ideas from the youth also helped in gathering useful information. After that, we created the outlines for our lesson plans and taught them to the youth. Evaluating the success of our teaching methods and adjusting the lesson plans accordingly was an important step in developing the teaching modules, as seen in Appendix A.

Alongside educating the youth, we began to collect ideas for and thoughts about the WRAP youth website we planned to create with the youth. Then we settled on a website-hosting service and a general layout for the website, with help from the youth as well as WRAP program managers Meredith Walsh, Kyle Tingley, and Jillian Lindblad. By the end of our six-week visiting period, we had enough data to finish writing the teaching modules and we had set up an early version of the website, which would be formally introduced to WRAP and populated by the youth in the future. The WRAP visit schedule in Figure 4 also includes a visit to WRAP after the initial six-week span in which we furthered the development of the website.

11/2/2015	11/5/2015	11/9/2015		
• meet & interact	• deliver youth	• assess needed tech		
with youth	online survey	Ethernet cables		
• reformat PC's	● set up PC's			
11/12/2015	11/16/2015	11/19/2015		
• assess youth	• talk with WRAP	• set up headphones		
interest in website	IT person	• obtain youth		
and teaching ideas	• obtain Ethernet	website ideas		
	cables			
11/21/2015	11/23/2015	11/30/2015		
• teach Module #1 -	• website	• teach Module #3 -		
Internet Safety	development	Software		
	• set up printer	Management		
12/3/2015	12/5/2015	12/7/2015		
• website	• teach Module #2 -	• website		
development	Effective Web	development		
	Browsing			
12/10/2015	2/11/2016	3/26/2016		
• meet with	• get WRAP	• introduce and		
Meredith and Kyle	directors and youth	showcase the		
about website	feedback on	website at WRAP		
	website			

Figure 4: WRAP Visit Schedule

4.1 Introductions and Setting up Computers

We devoted our first few visits to WRAP to introducing ourselves to the youth, getting to know them, and helping them with the typical things that WRAP volunteers usually do. This includes helping them with homework and reading, playing games with them, and socializing. Then, we slowly switched our focus to dealing with computer-related matters with the youth. Before we were able to really dig into this area, however, we had to assess and improve the computer hardware situation at WRAP.

At first inspection, the WRAP office had a small computer setup for the youth to use consisting of three desktops, all of which were semi-operational. A fourth desktop was connected to a television screen that the kids use primarily for karaoke. Only two of these four computers were connected to the internet. The computers not connected to the television would often be neglected due to the lack of internet access and password locks unknown to many at WRAP.

The importance of getting all of the computers to operate to their full potential and giving them internet access became apparent after the initial observations. WRAP utilizes an office space owned by The Southeast Asian Coalition, a partner of WRAP. This office space had a rather large inventory of donated computer supplies that were not in use because either no one knew how to set it up, or critical components were missing. This stockpile consisted of 13 computer towers, ten computer monitors, several small capacity hard drives, video cables, video cable adapters, power cables, 12 keyboards, several computer mice, two printers, a Wi-Fi range extender, and an Ethernet hub. Many of these items can be seen in Figure 5.



Figure 5: Donated Computer Equipment at WRAP

We reformatted four of the donated computers but only added one of them to the three other computers set up for the WRAP youth due to limited space and a lack of proper video cable adapters. The rest of the computers couldn't be properly formatted because they were missing certain components like hard drives and RAM. Moreover, many of the donated computer supplies were unusable due to incompatibility, such as the hard drives and monitor wires. Initially, there were not enough Ethernet cables to provide internet access to all of the computers available to the youth, but during one of our visits to WRAP we met someone who provided us with an abundance of Ethernet cables.

By our fifth visit to WRAP, we had connected all of the WRAP youth's five computers to the internet. Thereafter, the youth had access to four computers connected to monitors situated at a desk area and also to the computer connected to the television with couches situated for viewing the television. We also set up one of the donated printers so that the youth could have a specified printer to use that could also be monitored to prevent misuse or overuse through the regulation of the printer's cable. The last important addition to the youth's computer area was headphones that we suggested and set up for WRAP. There was a very positive reaction from the WRAP youth regarding the new computer and internet access. There became a much greater interest in using the computers at WRAP from the youth after we visited for a couple weeks, as compared to the initial level of interest we had observed. Figure 6 depicts a typical scenario of computer usage among the WRAP youth after we were finished setting things up.



Figure 6: WRAP Youth Using the Computers

4.2 Computer Literacy and Interest Among WRAP Youth

After the youth became interested in and started regularly using the computers at WRAP, we were able to properly assess their level of computer literacy. Simply observing them use the computers proved useful. We paid attention to what programs they used and websites they visited. Google Chrome proved to be the most utilized program on the computers, showing that the youth were almost exclusively interested in surfing the web. The exception to this would be the occasional use of chess on the computers. The most commonly visited websites were browser-based gaming websites and YouTube. The youth did not prove to be particularly fast typists or seem to use keyboard commands to speed up their navigation on the computers.

In order to obtain more detailed and recordable information about the youth, we delivered an online survey, shown in Appendix C, to a number of them to gather data on their computer usage and habits. The results of this survey are shown in Appendix D. This also gave us an understanding of how they used computers outside of WRAP. We learned that most of the youth at WRAP have either no computers or just one working computer at home, that the average youth uses computers somewhat regularly, and the major reasons they use computers are for games and videos. We also learned that they aren't familiar with a number of popular websites on the internet. These results agreed with our initial assumptions about the youth before meeting them as well as our observations during their computer use at WRAP. We concluded that there was much room for improvement in the computer literacy level of the youth, as well as in the variety of ways in which they used computers. Teaching them how to use computers more efficiently and showing them more reasons to use computers could drastically improve their experiences with computers and assist them with many tasks from completing their homework to learning about the latest updates to Minecraft.

4.3 Teaching the Youth Computer Literacy

After a couple weeks of visiting WRAP, we noted a few interesting occurrences there. WRAP was open on Mondays, Thursdays, and Saturdays, but each day brought a different attendance of youth. Mondays tended to have the fewest amount of youth, whereas Thursdays hosted the largest turnout. Thursdays had greater turnout because a bus dedicated for the youth was able to transport them to WRAP. Mondays were typically utilized for adult tutoring sessions that covered topics like English language education and American holidays. On Thursdays, the youth were encouraged to socialize, complete schoolwork, and improve their reading skills while at WRAP. It was easy to attract their attention to the computers but it was difficult to get them to focus on our questions and collect useful information from them. Most of the youth who used the computers did so for recreational purposes and therefore weren't enthusiastic about learning more about them. The relaxed setting of WRAP during the week hindered us from effectively implementing the teaching modules. Saturdays were youth-focused and well-organized, which made them the most appropriate for teaching the youth computer literacy.

On Saturdays, WRAP scheduled structured activities specifically for the youth. These Saturday activities allowed them to have fun and get to know each other, but also proved to be perfect times to teach them about computer literacy. We were able to schedule time with the youth on Saturdays that we used to implement the teaching modules. The youth were very receptive and cooperative during the lessons. We found the group size to be manageable, although we were limited due to the short amount of time we had with each group.

Module #1 teaches about computer and internet safety. We taught this module to the youth at the four-computer area to four groups of about six youth each at a time. After only utilizing this area to teach the module, we realized that the most effective way to teach every module would be to teach the primary lessons all at once in front of a big screen and then split the youth up at the computer area so that they can practice what they learn and complete exercises related to the material being taught. While we were teaching Module #1, one boy began taking notes on some of the information we were providing. This gave us the idea to provide the youth with paper and writing utensils during the lessons so that they could take notes to help them retain the information being taught. This also allowed them to review the information that they gathered at a later date and at their own pace.

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After teaching Module #1, we decided to implement youth assessments into Modules #1, #2, and #3. These brief questionnaires provide the teacher with a general idea of the youth's current understanding of the material in each module. Each one is made up of five yes-or-no questions so that the youth don't see them as long or difficult quizzes. The youth assessments allow the teacher to adjust the lesson plans accordingly and more accurately assume how much time each module will take to teach. Furthermore, they are ideal for comparing youth scores before and after a module is taught in order to determine how successful the module was at educating the youth.

Module #2 teaches about web browsing and how to use many tools that assist in surfing the web. This module seemed to be the most effective one we taught because we were able to utilize what we had learned from teaching Module #1 and because we were comfortable with teaching the youth computer literacy at that point. First, we administered the corresponding youth assessment, which roughly gauged the youth's current understanding of the material about to be taught. We emphasized to the youth that their answers weren't viewed as correct or incorrect so that they weren't stressed about what answers they provided. This way we obtained honest responses from them. The majority of the responses we received showed little understanding of the material and unfamiliarity with the terminology associated with the module. For instance, the youth knew how to use web browsers and search engines to a degree, but did not identify them with their proper names. Knowing the youth were mostly unfamiliar with the material, we tried to teach Module #2 as slowly and comprehensively as possible, and skipped some of the more advanced topics. We utilized one computer and a television to teach the youth about web browsing. Figure 7 depicts two of us during the implementation of Module #2.



Figure 7: Teaching Module #2 to the Youth

Then we situated them at the four-computer area and had them demonstrate what they learned, as well as do an activity involving research on the food pyramid.

Module #3 teaches about software management. We taught this module on a Monday instead of on a Saturday. Teaching it on a Saturday would have been ideal but could not be managed due to time constraints. This meant that the module was taught to fewer youth than the other two modules, but also meant that we had more time to teach it. Module #3 was taught individually to about five youth, meaning one of us sat down with one of them at a computer and showed them the basics of software management, which involves things like installing programs, uninstalling programs, and finding unwanted programs on a computer. From teaching Module #3, we learned that one-on-one interactions can be very effective if time allows for them. For the small number of youth that were taught software management, we noticed a promising level of retainment in the knowledge that was passed down after asking them about what they learned a week later. We weren't able to personally teach Module #4 on account of the WRAP youth website being in its very early stages at the time we were teaching the youth.

4.4 Creating a Website for the Youth

Before we began creating a website for the WRAP youth, we understood there would be a need to get ideas and suggestions from them. During one of our visits to WRAP we did an activity with the youth where we gave them a blank sheet of paper and told them to draw a picture of what an interesting website for them would look like or contain. Four of the dozen or so results we collected from the youth are located in Appendix E. From the youth, we got the idea to make the website multi-purpose and include a variety of topics. We also realized the need for a page on the website dedicated to video games because of how many video game related drawings appeared during the website drawing activity. Figure 8 depicts the space we prepared for the youth for this activity.



Figure 8: Setup for Youth Website Ideas Activity

After the activity, we realized that providing the youth with example pages and prompts might have helped them complete the task given to them more efficiently and confidently. The spontaneous responses that we received from the youth were still valuable, however. After collecting ideas from the youth, we obtained feedback about the website from a few directors at WRAP.

Initially, we presented our ideas for the WRAP youth website to Meredith Walsh and Kyle Tingley. We received a very positive response towards the website as well as helpful ideas for improving its design, such as a web page that features the accomplishments of certain youth. Later on, we showed Meredith, Kyle, and Jillian Lindblad the progress we made in designing and developing the website. They provided us with constructive feedback that we utilized to improve the website, including designing the homepage to feature a collage of photographs of the youth. We also scheduled a meeting with Jillian to formally introduce and showcase the website to WRAP, which will occur after the designated end date for this project.

With the resources at our disposal, we were able to create a unique space for the youth where they can explore, learn, share, and communicate; however, we were not able to design an extravagant website due to a lack of additional resources such as more time and expensive website-building tools.

5.0 Deliverables

We initially began this project with the simple goal of increasing the current computer literacy level of the youth at WRAP ourselves. Shortly after the project was underway, we realized it would be much more beneficial to create something that allowed others to repeat the lessons we planned to teach the youth. This way, the current youth at WRAP could learn even more through repetition, and the future youth of WRAP could also benefit from the lessons. Thus, the teaching modules for WRAP were conceived. The content of the modules combines background research, personal knowledge, field research, and sponsor feedback. The modules create a comprehensive set of lessons that teach important computer skills designed to assist the youth in multiple academic and recreational ways. The teaching modules are designed so that any WRAP volunteer with average computer knowledge can use them to teach the youth. The modules contain instructions, definitions, examples, suggestions, and pictures. Additionally, they aren't too specific, which keeps them brief and allows the user to utilize their own knowledge and ideas to enhance the lessons. We anticipate the future use of the teaching modules at WRAP and predict the advancement of the computer literacy of the youth as a result.

Teaching Module #1, Internet Safety, is designed for teaching the youth about viruses and their dangers, as well as how to protect computers from viruses and how to stay safe when using the internet. It defines what a virus is and what antivirus software is. It provides four examples of antivirus software that can be installed for free. It highlights important methods of keeping computers virus-free such as properly utilizing antivirus software and staying away from untrustworthy websites. The module shows the youth how to install web browser add-ons that block advertisements on the internet and warn the user about dangerous websites. Four examples of these add-ons are given. Furthermore, Module #1 provides several tips on how to be safe while using the internet, including avoiding scams and protecting personal information.

Teaching Module #2, Effective Web Browsing, teaches the youth about web browsers, search engines, and how to use them efficiently. It provides a definition and four examples for both web browsers and search engines. It teaches the youth how to use web browser features like history, bookmarks, and extensions. Nine helpful and commonly used keyboard shortcuts are provided for the youth to learn and use. Module #2 also explains some the additional

functionality of the Google search engine, such as the built-in calculator, unit-converter, language translator, and dictionary.

Teaching Module #3, Software Management, begins by teaching the youth what a computer program is. From there, the module teaches the youth how to install computer programs and avoid accidentally installing unwanted programs or features during the installation process. It also teaches the youth how to look at certain details about programs on a computer, and how to uninstall programs from a computer.

Teaching Module #4, WRAP Kids Website, serves as a way of introducing the youth to the website that has been designed for them. It shows the youth how to access and interact with the website. It describes the purpose of each of the eight pages on the website and how to use them. While the website is relatively straightforward and the youth can benefit without any formal training, Module #4 is designed to show the youth how to make the most of the website, and to prevent the youth from having to figure out the website functionality by themselves. Figure 9 is a picture containing the first pages to each of the four teaching modules.



Figure 9: Snapshots of the Teaching Modules

We also created an instruction manual for maintaining and updating the WRAP youth website. This manual is designed for those at WRAP who will administer and oversee the use of the website. The manual provides detailed information on how to edit the pages and adjust the settings of the website. It includes how to sign into the Google account responsible for the website and how to access and use the various tools available for making changes to the website. The WRAP youth website administrator instruction manual is located in Appendix B.

The website for the youth at WRAP was created using Google's free weblog publishing tool, Blogger. Although it took time to decide on the theme, layout, and content for the website, the tool was generally simple and easy to use. We expect the future administrators of the website to update it with ease. The website contains eight separate web pages that are accessed through a navigation bar at the top of the website. These pages are Home, Stories, Cultural Backgrounds, Homework Help, Games, WRAP Stars, Calendar, and WRAP. The Home page is a static page that displays a collection of photos of the WRAP youth and their activities. The Stories page contains all of the posts that the youth will be creating, sharing, and commenting on. Cultural Backgrounds is a page where information about the youth's culture and ethnic backgrounds is displayed. This page exists so that the youth can share and learn more about their unique culture. Homework Help is a page that pools together multiple online resources that the youth may find helpful when doing schoolwork, such as Purple Math and Khan Academy. The Games page contains content related to video games. This content includes photos, information, and links to popular video game-related websites. WRAP Stars is a page designed to showcase outstanding accomplishments and achievements of the youth. The website administrators can update this page with text and photos pertaining to youth who stand out positively in some way. This page is opportune for rewarding youth that win contests or complete challenges at WRAP. The Calendar page links the user directly to the calendar page for the main WRAP website and the WRAP page links the user directly to the home page for the main WRAP website.

There is a sidebar on the right side of the website that contains several customizable widgets. This sidebar contains a list of links to important websites for the youth, an archive containing links to all of the posts on the website, and a brief description of the website designed to inform those unfamiliar with the site. All pages and features of the WRAP youth website can easily be adjusted or changed completely to represent the current interest and needs of WRAP

and its youth. Figure 10 is a screenshot of part of the Homework Help page on the WRAP youth website.

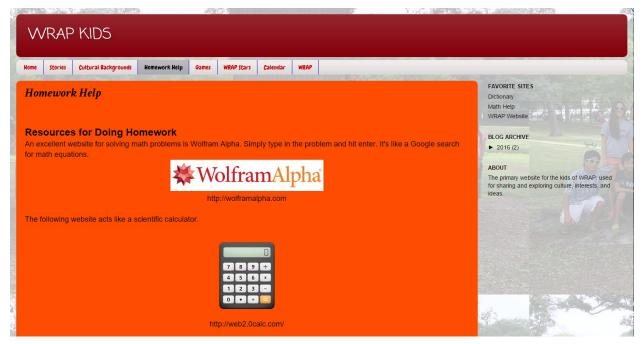


Figure 10: WRAP Youth Website - Homework Help

Designing, creating, and delivering the four computer literacy teaching modules, the WRAP youth website, and the website instruction manual was a very satisfying accomplishment that we hope benefits both WRAP and its youth.

6.0 Recommendations and Conclusions

From the first day we arrived at WRAP and surveyed the situation in the office suite, we strived to discover and accomplish tasks that would benefit the youth there. Before directly helping them, we focused on getting to know them and made some great friends along the way. We quickly discovered that the computer setup for the youth at WRAP could be improved significantly. Remedying that situation became our top priority. Our success with this initial obstacle was met with great enthusiasm from the youth. They immediately began to utilize and benefit from the improvements we implemented. Another obstacle we faced was finding ideal times to implement our teaching modules to teach the youth computer literacy. Through communication with WRAP stakeholders we were able to schedule times with the youth at WRAP that were used for effectively delivering the first wave of teaching modules, which we were then able to improve based on our experiences teaching the youth.

We very quickly discovered that properly teaching one of the teaching modules takes more time than we had. We attempted to teach a module to groups of six to eight youth a module in 15-20 minutes. Thus, we would recommend 30 minutes of teaching per module for a group of no more than ten youth. Even after a module is properly taught to a group of youth, it is highly unlikely that they will retain all of the information provided to them. This is why we also recommend teaching a module to the youth more than once and supplying note taking materials as optional tools. We cannot confirm the success of teaching the youth more than once due to the limited time frame of this project. Additionally, from our experiences teaching two modules on Saturdays and one on a Monday, we recommend delivering the teaching modules to the youth during Saturday morning WRAP activities due to the more kid-centric and organized environment of those times.

We recommend that the WRAP youth website we designed be utilized by the youth on a regular basis. This will benefit both the youth and the website. The website becomes more interesting and engaging the more the youth interact with it. It grows with every post and comment the youth create, and with every implemented recommendation the youth come up with. The website will potentially serve as a platform that brings the youth together in all kinds of ways. We recommend that the website be set as the home page for the web browsers on the

youth computers so that they are regularly exposed to its content and encouraged to utilize and interact with it.

For the duration of this project, we visited the Worcester Refugee Assistance Project and interacted with its participants. More specifically, we interacted with the youth there who were between the ages of about 6 and 13 years old. We learned a lot from them and hope to have taught them even more. Following our original goals for this project, we improved their understanding of computers and presented WRAP with teaching modules that will bring about the further increase in computer knowledge for the youth in the future. In addition to this, we created a website specifically designed for the youth to use that, if utilized properly, will allow for communication, sharing, education, and entertainment among the youth. Being a part of the WRAP community was a unique and unforgettable experience for us.

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Appendix A: Teaching Modules

TEACHING MODULE #1 INTERNET SAFETY

The youth are taught about viruses, the threat that they pose, and the benefits of having antivirus software on a computer.

Virus:

Unwanted computer files that can bring harm to the infected computer by slowing it down, stealing data, or destroying data.

Antivirus:

Software designed to detect and destroy computer viruses.

How to prevent viruses

- Install, update, and use antivirus software
- Install ad-blocking and safe-surfing web browser add-ons
- Recognize and avoid visiting untrustworthy or dangerous websites
- Avoid clicking on advertisements, pop-ups, or suspicious links

Suggested antivirus software Windows Defender Malwarebytes Bitdefender AVG

Malwarebytes

The youth are shown how to update and use antivirus software. They are encouraged to run virus scans regularly (ideally once a week). A demonstration of antivirus software detecting malicious items and removing them is shown to the youth.

The youth are shown how to install web browser addons that help them avoid advertisements and dangerous websites on the internet.

Suggested web browser add-ons

- Adblock
- Adblock Plus
- Web of Trust
- Bitdefender Traffic Light



The youth are shown a before-and-after demonstration for Adblock (example shown above). They are also told to only visit websites that are green-lit by add-ons like Web of Trust and Bitdefender Traffic Light.

How to stay safe on the internet

- Avoid advertisements and scams
- Never give out personal information over the internet
- Never talk to strangers on the internet
- Stay away from explicit, suspicious, and unfamiliar websites, content, and downloads

YOUTH ASSESSMENT #1

Please answer the following questions by circling yes or no:

Do you know what a computer virus is?

yes no

Do you know what antivirus software is?

yes no

Do you use an adblocker when browsing the internet?

yes no

Do you understand why some websites are dangerous?

yes no

Do you provide personal information to strangers on the internet?

yes no

TEACHING MODULE #2 EFFECTIVE WEB BROWSING

The youth are taught methods to increase the ease and speed at which they surf the web. Web browsers and search engines are defined for the youth, and examples of the two are showcased.

Web browser:

A **web browser** is a software application for retrieving, presenting, and traversing information resources on the internet.

Examples of web browsers:

- Google Chrome
- Internet Explorer
- Mozilla Firefox
- Safari



A **search engine** is a program that searches for and identifies items in a database that correspond to keywords or characters specified by the user, used especially for finding particular sites on the internet.

Examples of search engines:

- Google
- Bing
- Yahoo
- Dogpile



The youth are shown how to access web-browsing history, access bookmarks, activate the bookmarks bar, and bookmark web pages. The use of Google Chrome is recommended because the majority of the youth are the most familiar with it. The extensions manager, settings page, and downloads page are also shown and explained.

The youth are told about keyboard shortcuts (hotkeys) that can improve their web navigation speed.

Helpful hotkeys (Google Chrome)

- Ctrl+T opens a new tab
- Ctrl+Shift+T opens a recently closed tab
- Ctrl+W closes current tab
- Ctrl+H opens history page
- Ctrl+F searches for key letters and phrases
- Ctrl+R refreshes current page
- Ctrl+J opens downloads page
- Ctrl+= zooms in
- Ctrl+- zooms out

The youth are shown some of the useful functions built into the Google search engine.

Helpful functions from Google

- Built-in calculator
- Unit-converter
- Translator
- Dictionary

WARNING: This module can easily cause an information overload among the youth, so adjusting the amount of features, tips, and shortcuts taught based on youth comprehension is recommended.



TEACHING MODULE #3 SOFTWARE MANAGEMENT

The youth are taught about computer programs, including what they are, how to install them, how to uninstall them, and how to determine which ones are safe.

Computer program:

An item on a computer that contains instructions that tell the computer what to do.

Installing programs

Programs can be installed by downloading files from the internet called executables, or .exe files, or by transferring these files to a computer from an external storage device, such as a flash drive.

The youth are shown how to download and recognize .exe files and run them. Then they are walked through an installation process. The youth are warned about accidentally installing extra or unwanted programs while installing a program. Always pay attention to check boxes during installations.

Uninstalling programs

The youth are shown how to access the Control Panel and utilize the "Programs and Features" section to view program details and uninstall programs. They are encouraged to uninstall unused and suspicious programs.

> The youth should always research programs before installing or uninstalling them to ensure they aren't installing harmful programs or deleting important programs.

YOUTH ASSESSMENT #3

Please answer the following questions by circling yes or no:

Do you know what a computer program is?

yes no

Do you know how to install programs on a computer?

yes no

Do you know how to uninstall programs on a computer?

yes no

Do you know how to avoid installing unwanted programs?

yes no

Have you ever used the Control Panel on a computer?

yes no

TEACHING MODULE #4 WRAP KIDS WEBSITE

Home

This page contains a collage of pictures. To contribute to this page the youth should speak with a website admin about their idea.

Stories

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This page is a collection of the stories and other posts that the youth and admins have created. The youth are shown how to create posts for this page and comment on existing posts.

Cultural Backgrounds

This page has information about the various cultures, ethnicities, and heritages of the youth. It is designed to enlighten the youth about each other's backgrounds. The youth are encouraged to read through this page and learn as much as possible.

They are shown how to add comments to the page and encouraged to talk to admins about adding their own cultural information or experiences to the page. The youth are encouraged to ask their parents about their culture and about contributions to the page.

Homework Help

The youth are encouraged to utilize the resources on this page when they require assistance with their school work. The page contains useful links to websites that will assist them with various subjects, like math and English. Commenting on the page and speaking with admins are ways the youth can contribute their own resources to the page.

Games

This page contains links to fun websites with flash games, a popular pastime among the youth. It also contains links to websites that provide gaming news and video game-related videos. The youth can use this page to access games and comment their ideas for new content for the page.

WRAP Stars

This page exists to showcase the youth's noteworthy accomplishments and deeds. The youth are encouraged to visit it regularly to see who is being promoted. The youth should comment if they have a suggestion for the next WRAP Star.

Calendar

This tab links to the WRAP Calendar on the main WRAP website for any youth who wants to keep up to date about events at WRAP.

WRAP

This tab links to the main WRAP website for the youth who have not yet explored its content or want to learn more about what WRAP does.

Additionally, multiple widgets with various functions are located to the right side of the website, like a list of favorite website links and archive of blog posts.

> Teaching this module to its full potential may require instruction on how to use or access the website via the WRAP KIDS Website Administrator Manual.

> > WRAP Stars

Calendar

WRAP

WRAP KIDS

Stories

0

Appendix B: Website Admin Manual

WRAP KIDS WEBSITE ADMINISTRATOR MANUAL

 Log into Gmail (speak with WRAP administration for login details)
 Go to blogger.com and access WRAP Kids Blog

Posts

Here you can view, edit, and delete any of the posts that exist on the website. Hovering over a listed post displays the "Edit | View | Share | Delete" options. Additionally, you can add to or remove from the collage post that makes up the Home page. Editing a post brings you to a word document-style page where various editing tools can be utilized.

Pages

On this tab you can view, edit, and delete existing web pages for the website. You can also create new pages using the "New page" button. Pages are edited using the same methods and tools that posts are.

Comments

Here you can view, edit, and delete published comments on the website. The "Awaiting moderation" tab under the "Comments" tab is used for approving comments left by the users. Approve appropriate comments regularly. Report any inappropriate comments to WRAP administration and be sure not to publish these comments onto the website.

> Google+ integration has been disabled for the website, so the "Google+" tab can be ignored, as can the "Stats", "Earnings", and "Campaigns" tabs.

Layout

This tab allows you to alter the design of the website. This is done by editing the various gadgets shown using the "Edit" buttons on the bottom right of each gadget.

The "Cross-Column" gadget edits the tabs that link the web pages on the website. Here, tabs can be added, removed, and relocated.

Clicking and dragging the gray, dotted boxes on the left side of certain gadgets allows them to be moved around. This will adjust the location of each gadget on the website.

Template

This tab will let you alter the aesthetic of the entire website. Clicking on the "Customize" button brings you to a page where you can adjust templates, backgrounds, widths, layouts, and more. Note that there are 34+ free templates to use, the more professional templates are not free. You can also customize the mobile version of the website using this tab.

Settings

This tab accesses the various properties of the website.

The "Basic" tab lets you change the title, description, privacy settings, web address (URL), authors, and readers for the website. Authors are accounts that have access to the tools for altering the website. Readers should always be set to public so that everyone can see the website in its entirety (except during long-term website updates and alterations).

The "Posts and comments" tab lets you alter settings for posts like the number located on the main page, and for comments such as positioning, authority, and moderation.

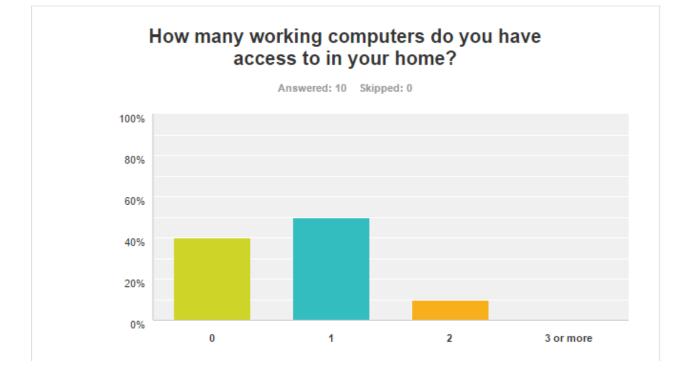
Appendix C: Online Survey for Youth

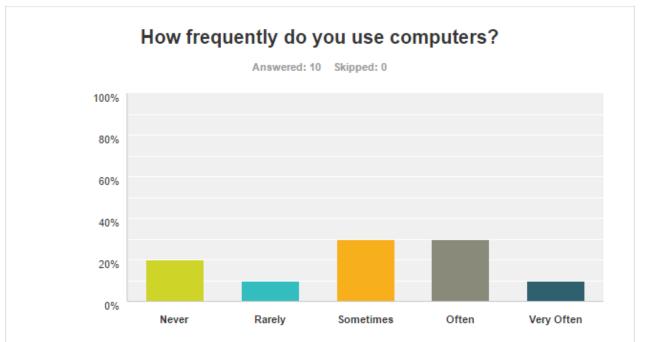
	Computer & Website Familiarity
 0 1 2 3 or more 2. How frequently do you use computers? Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions 	
 0 1 2 3 or more 2. How frequently do you use computers? Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions 	1 How many working computers do you have access to in your home?
 1 2 3 or more 2. How frequently do you use computers? Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions 	
 2 3 or more 2. How frequently do you use computers? Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions 	
3 or more 2. How frequently do you use computers? Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions	
2. How frequently do you use computers? Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions	
 Never Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Vdeos/Photos News Information/Answer Questions	
 Rarely Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions 	2. How frequently do you use computers?
Sometimes Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions	○ Never
 Often Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Vdeos/Photos News Information/Answer Questions 	Rarely
 Very Often 3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Vdeos/Photos News Information/Answer Questions 	Sometimes
3. What do you usually do on computers? (Check all that apply) Homework Social Media Games Videos/Photos News Information/Answer Questions	Often
 Homework Social Media Games Videos/Photos News Information/Answer Questions 	Very Often
 Homework Social Media Games Videos/Photos News Information/Answer Questions 	3. What do you usually do on computere? (Check all that apply)
Games Games Videos/Photos News Information/Answer Questions	
Videos/Photos News Information/Answer Questions	Social Media
News Information/Answer Questions	Games
Information/Answer Questions	Videos/Photos
	News
Other (please specify)	Information/Answer Questions
	Other (please specify)

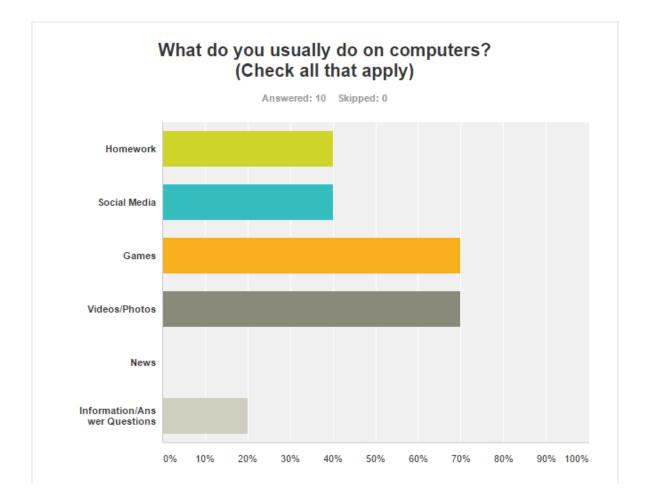
4. How often do you use the following websites?

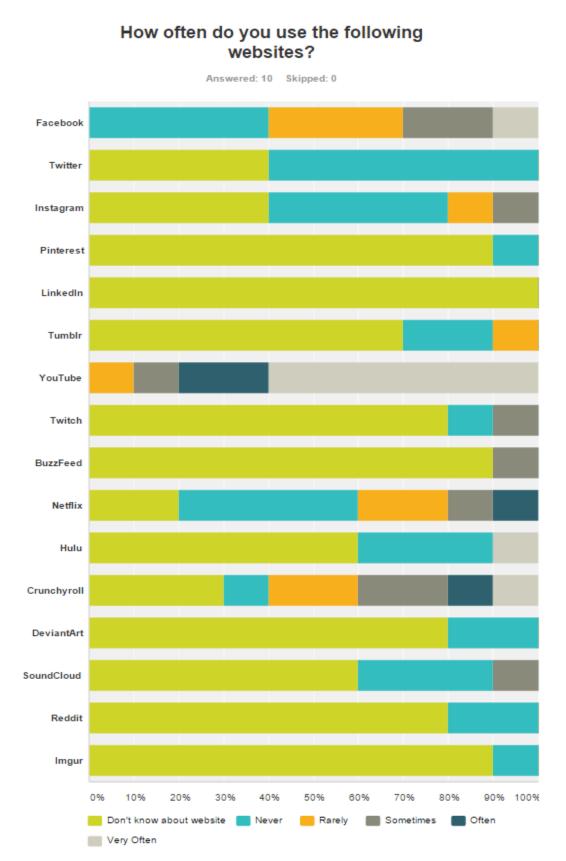
	Don't know about website	Never	Rarely	Sometimes	Often	Very Often
Facebook	\bigcirc	\bigcirc	0	\bigcirc	\bigcirc	
Twitter	0	0	0	0	0	0
Instagram	0	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Pinterest	0	0	0	\bigcirc	\bigcirc	0
LinkedIn	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Tumblr	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
YouTube	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Twitch	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
BuzzFeed	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Netflix	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Hulu	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Crunchyroll	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
DeviantArt	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
SoundCloud	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Reddit	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Imgur	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Please list other websites y	ou frequently visit that	🖒 Sui	Done Powered by TVeyMonke			

Appendix D: Online Survey Results









Appendix E: Youth Website Ideas

Design Your Website http: Blanh-fr: for new ded's Þ Games Ganos xboy clothes Ascaluga schall app Call of Duly clothes Turs Phone New the New Jame conson sale rution S/PP/B School supples Jame borton Mori Broke boch buch 1

Design Your Website With a Play Jame and carn James DUZZIC real money \$\$\$ shil ganic like rain Phis you hover way! to 90 we have all winds of game to Job. for you to play Top game 1-7 pay pay 500 \$1.00 500 55.00 Costs5 Costlocosts Cost 20

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Design Your Website! VANOSS.COM Log in of create An Toining Huminati Viedo T-Shipts! socier for starters weat shirts MAtha - Matics funniest viedo EVER Football for storter SPORTS & Any / Starters GAMES you need to Phy Clash of clan's Call of duty 111 HALOS ANY impossible game Mine craft | mine (Saft PE