

# Improving Web Presence and Stakeholder Interaction for the Emergency Services Foundation

A Melbourne Project Center Interactive Qualifying Project



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## **Abstract**

The increasing pervasiveness of the Internet and social media has resulted in online marketing techniques and unprecedented organization-stakeholder communication. The goal for this project was to improve the stakeholder interactions for the Emergency Services Foundation (ESF), a nonprofit charitable organization that aids the emergency services community. We investigated best practices in online communication and the needs and experiences of emergency service workers. We created a new website and provided resources for the ESF to maintain improved communication and sustained success.

# Executive Summary

## Introduction and Background

The Emergency Services Foundation (ESF) is a nonprofit organization located in Victoria, Australia that provides financial aid to emergency service workers injured in the line of duty, annual emergency service conference events, and scholarship opportunities for emergency service workers interested in conducting research on improving the safety and effectiveness of their work. The ESF provides aid in the event of a large-scale disaster. Uniquely, the ESF does so by supporting emergency service workers, a safety net that did not exist in Victoria prior to its founding. The ESF was established following the 1983 Ash Wednesday bushfire disaster, the worst bushfire disaster in Victorian history at the time. The organization was officially founded in 1987 as a means of collecting and transferring a large sum of donations made after the disaster to emergency service workers impacted attending the bushfire.

The organization is currently lacking sufficient funds to provide large-scale support in the event of a major disaster. Additionally, the organization hopes to improve interaction with its constituency. The ESF would like to account for both of these goals through a redesign of its outdated website and improvement of social media practices. This project was intended to assist the Emergency Services Foundation improve stakeholder interaction by building a new, interactive web platform for the organization. We were tasked with also providing guidelines to ensure continued success on the website and social media. The goal of these efforts was to improve the organization's outreach, stakeholder engagement, and fundraising capabilities.

## Methodology

The four main objectives completed for this project were:

1. Research best practices and strategies for maintaining an effective online presence.
2. Assess the needs of the ESF and its key constituency groups.
3. Create the ESF website.
4. Compose a comprehensive guide for managing the ESF's website and social media accounts, including a collection of media to serve as website and social media content with sustained maintenance in mind.

Prior to the project term, we researched various topics of interest in regards to website design, including best practices for website design and social media, utility of web analytics, and cyber security.

We considered ESF board members and past ESF Scholarship Awardees as our key stakeholders, as the board members had specific ideas and visions for the new website and social media. Scholarship Awardees heavily accessed the previous ESF website and would be able to offer insightful advice and opinions in regards to what the website should provide.

In order to assess the needs and opinions of these groups we conducted a variety of tests. We held informal discussions with board members in order to determine what initial features

must be implemented on the website and what approaches should be taken on social media. A website survey was sent out to a contact list consisting of scholarship awardees and other members involved within the ESF in order to understand how the ESF website is utilized, as well as to determine internet and social media trends within the constituency.

## **Findings**

Through these interactions with key stakeholders we determined major themes and features that should be acknowledged when developing the website and establishing appropriate social media criteria. The following is an outline of these results:

### **Analysis of Stakeholder Website and Internet Usage**

***The former ESF website generated little web traffic.***

Based on survey results, it was found that stakeholders visited the website at most once a month and a majority visited the site either once a year or less than that. This information reinforces the need for a more interactive ESF website that encourages more frequent usage.

***In regards to Appearance, Navigability, and Information/Content the website scored mostly “Satisfactory” or “Poor” ratings.***

Overall the website rated at either average or below average in the measured categories, suggesting the website required widespread improvement.

***ESF website pages are informative, however content and appearance are dated.***

The previous ESF website posted information such as annual reports; however, though this information was useful, reports for the past two years have not been added. Additionally, scholarship awardee information appeared out of date to some respondents. Respondents offered input on ways to create a more appealing and interactive website in appearance and available content.

***A majority of stakeholders spend less than 25% of their time on social media, with Facebook being the most popular, followed by Twitter, Instagram, and LinkedIn. Most prefer to be contacted via email.***

These findings allowed us to determine which forms of social media and methods of communication are most effective in reaching out to stakeholders. However, at the same time it illustrates the lack of interaction the ESF has with its members and the potential benefits of improving online activity on social media.

### **Analysis of Stakeholder Themes on the ESF and Online Communication**

***The ESF requires improved fundraising capabilities.***

Board members requested website donation capabilities that did not exist previously, including a donate button and a store feature where fundraising merchandise can be sold. Prior to this project, donations were accepted by direct transfers to the ESF bank account using information provided on the website. Additionally, the website must better illustrate the worthiness of the ESF mission in order to attract more donations, whether this be through captivating imagery or descriptions.

***The ESF seeks increased interaction.***

The ESF conferences have built a sense of camaraderie within emergency services. In a similar vein, the organization seeks to further increase community involvement through the website in the form of a social space. Providing more information on scholarships and better presenting the achievements of scholarship recipients will also improve interaction. This is the main appeal of the organization. Therefore, providing such information is valuable in communicating the state of the research and also provides model examples for potential scholarship applicants. The ESF may also benefit from increasing social media activity as this allows for improved two-way communication and interaction.

***Search Engine Optimization (SEO) and web analytics should be included.***

Suggested both through our background research and by the various stakeholders interviewed, including a web content manager, the ESF would benefit greatly from implementing SEO to their website and measuring its effectiveness with web analytics tools, such as Google Analytics.

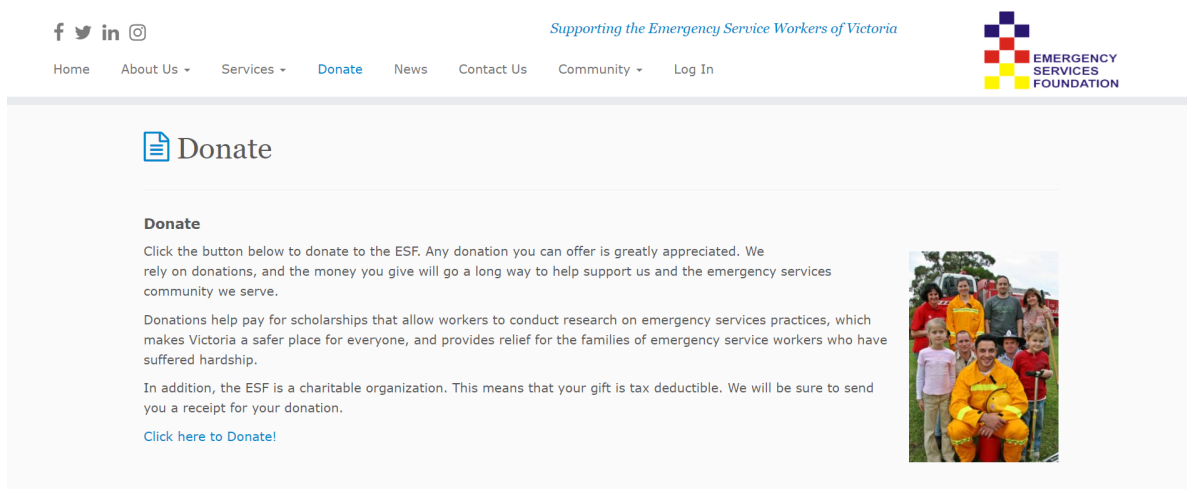
## **Deliverables & Conclusion**

We provided three deliverables to the ESF at the conclusion of our project:

1. A new website
2. A Website and Social Media Guide
3. A media collection

The website incorporated researched best practices, as well as recommendations and suggestions made by our key stakeholder group. Many features fulfilled an organizational need and also improved navigability, appearance, and information/content.

We improved fundraising capabilities through the addition of a donate link, as well as the incorporation of an online shop to sell fundraising merchandise. In addition, captivating images and descriptions were added to better illustrate the ESF’s mission. Figure 1 displays an image of the added donate page.



**Figure 1: Image of donate page.**

We improved website interaction through the creation of a member’s forum using BuddyPress. In addition, the new site includes web security features through WordPress and the Wordfence plugin. Social media links were added at the header and footer of the website and a Twitter feed was added to the sidebar. In addition, we included a “News” page where the ESF can post updates about itself and its member agencies. Figure 2 displays an image of the “News” page.

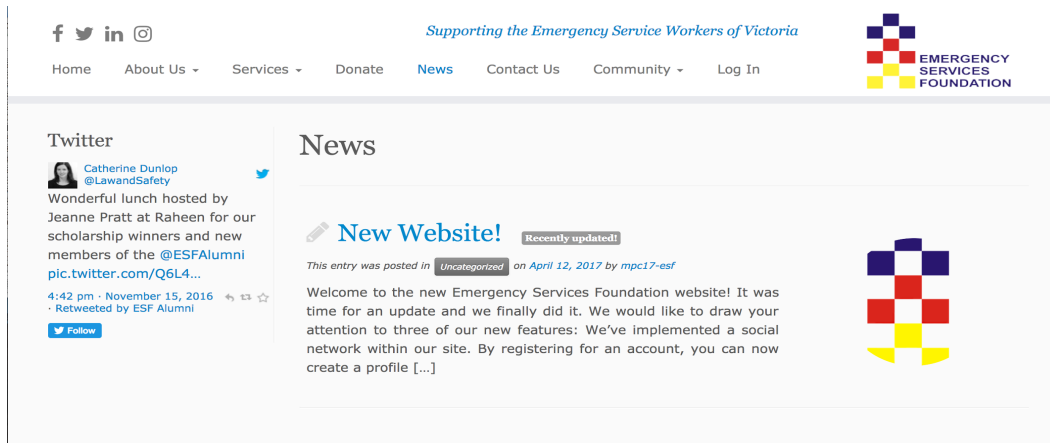


Figure 2: Image of “News” page.

A robust gallery was added to the scholarship page. This gallery includes headshot photos, project briefs, full reports, photos taken while traveling, and video interviews of the project experience. Figure 3 displays the scholarship gallery.

In addition to these features we also incorporated striking image, links, and headlines to improve search engine optimization, as well as updated member agency links and information promoting cross-linking. Other features add for improved navigability, appearance, and information/content were a search bar and a Frequently-Asked-Questions page. Figure 4 displays the header and footer, which demonstrate some of these added features.

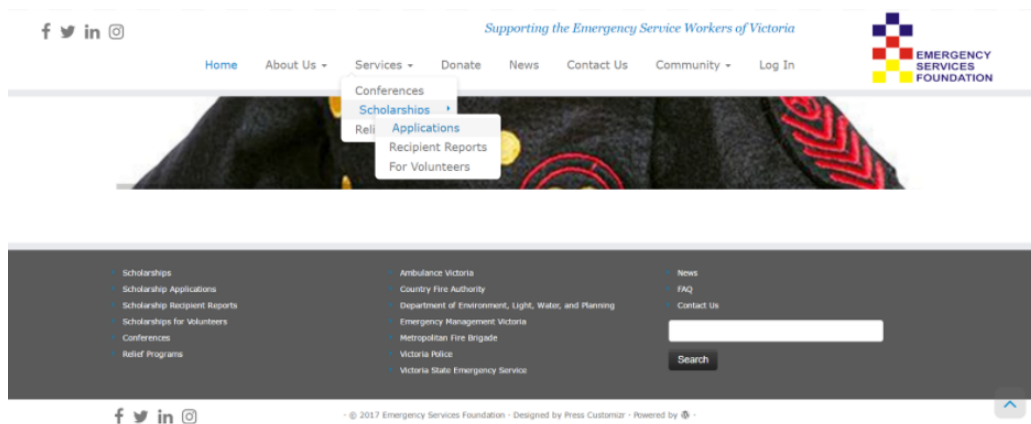


Figure 3: Header and Footer of the ESF website.

The Website and Social Media guide included comprehensive information on how to manage a WordPress site in order to allow for the organization to make easy edits and continually update the website. Best practices and various findings from our research were included that are beneficial for an organization seeking to improve online marketing techniques for websites and social media.

The media collection consisted of images provided by various member agencies consisting of operational and event photos. We recorded video interviews with scholarship awardees to provide an interactive, visual representation of the ESF scholarships. We also acquired images and website content from media managers of member agencies. Using this research a new website was created using the content management system (CMS) WordPress. We provided these resources for the ESF to use on their website and social media. In addition, we created a video compilation of interviews we conducted with scholarship recipients detailing their careers, application process, and project experience. The full interviews were also included. In order for an organization to benefit from its online platforms, constant maintenance and updates are necessary, which is why providing more resources for updates was a main deliverable

Through our content collection and research we were able to create a more visually appealing and captivating website that may attract more individuals to the ESF cause, and help the ESF in achieving its new vision due to the changing environment in emergency services. The ESF seeks to attract the younger generation of emergency service workers and to begin attracting the general public as a necessary charity in the event of large-scale disaster. It also seeks to reinforce the mission of preventing widespread loss in the case of such of an event through innovative research in responder safety and emergency service practice. We believe the ESF will benefit greatly from improved website and social media practices, and that the guides and assets we have provided will serve as an excellent starting point for the ESF in achieving its goals of increased interaction with the emergency services community and the general public. In order to benefit from online stakeholder interaction, the ESF must maintain an active presence across their platforms. We hope to see the future success of the organization for the years to come and that the work we have done and the resources we have provided will be beneficial for the ESF. Specifically, we would like to see a more actively updated website and the formation of a larger and more dedicated community interacting with the ESF on their website and social media, hopefully resulting in an increase in donations to the organization.

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# 1. Introduction

Businesses and organizations worldwide have been using the Internet to improve two-way communication with stakeholders. Nonprofits are no exception. Use of the “Web 2.0,” the facet of the Internet that allows for two-way communication, has allowed nonprofits to inform, communicate with, and mobilize constituents. This ability to communicate with stakeholders and receive responses has allowed nonprofits to build a deeper sense of community with their stakeholders. One way this is achieved is through an interactive website which establishes or advertises modes of communication for the user, such as contact information or forums. Another potentially more effective way to build this sense of community is through social media. Using outlets such as Facebook, Twitter, and Instagram, nonprofits have successfully informed the public about themselves and gained members while building relations with standing members and other organizations.

The Emergency Services Foundation (ESF) was established with the mission of aiding emergency service workers in the state of Victoria, Australia. Like many other nonprofits, the ESF discovered that its mission could benefit from the implementation of a website. However, it has not kept up with the rapid advances in web design and internet technology. Since Australians are among the top internet users worldwide with 85.1% of the population connected (internet live stats, 2016), a website offers a valuable opportunity for communication between the ESF, the emergency services community, and the general public. Other Australian nonprofits, such as Inclusion Melbourne, Reef Life Survey, and Aboriginal Housing Victoria, have embraced Web 2.0. The websites of these nonprofits have maintained modern, updated websites that are easily navigable, information-rich, and vibrant. Each of these organizations also have links to their social media profiles on their homepage, a strategy that helps to increase exposure and to keep community members updated.

The Emergency Services Foundation provides aid to emergency service workers. These services include scholarship programs, financial relief to injured emergency service workers and their families, and the annual Emergency Management Conference and Volunteer Leader’s Forum. With the role emergency services workers play in society and the dangers they face, these services are crucial. Emergency services help keep a society functioning and come to the aid of the community in times of distress. The scholarship programs, Emergency Management Conference, and Volunteer Leader’s Forum help the emergency service providers of Victoria, Australia improve their ability to respond to disasters and ensure their own wellbeing. In such a role, emergency service workers face dangerous situations in the line of duty. In fact, the injury rate for police officers in Australia is over three times that of the national average and that for paramedics is six or seven times the national average (Maguire, O’Meara, Brightwell, O’Neill, & Fitzgerald, 2014). In addition to this physical toll, emergency service workers are at a heightened risk of emotional trauma and resulting disorders like PTSD. Because of the essential role they

serve and the dangers they face, it is important that emergency services are able to seek and find support systems like those the ESF provides. In order to ensure that the ESF's website is effective in communicating with the workers, it is important to obtain their input on what their needs are and the services they seek.

Currently, the Emergency Services Foundation's website serves as a helpful source for information. The website has an "About the Emergency Services Foundation" page providing a background of the organization and its mission. There are also pages for each of the provided services, including scholarships and the Emergency Management Conference. However, the website has not kept up with trends in web design; while most of the popular websites today emphasize a largely visual experience, rich with photographs and videos, the ESF's website relies heavily on text to convey information. More importantly, the website lacks the ability for user input for actions such as sending donations and signing up for the Emergency Management Conference. Furthermore, the ESF lacks a social media presence, limiting its ability to actively communicate with and inform its stakeholders.

This project intended to help the Emergency Services Foundation increase communication with stakeholders across web platforms by researching successful e-communication strategies, providing guidelines promoting long term success tailored specifically to the ESF, and developing an updated website for the ESF. The expected outcome of this project was to provide an updated website and social media accounts designed for successful online marketing, as well as provide resources and information to help the ESF update their online communication strategies and ensure its maintenance for continued success. We intended to analyze our collected interview and survey responses and research on best practices for online communication to effectively aid in the rebranding of the organization. Based on this research, we developed a new website reflecting the culture and goals of the ESF that allows them to engage effectively with their community. Additionally we provided a website and social media guide that includes information on best practices, metrics for measuring effectiveness, and website security information, as well as videos and other media to use as website and social media content. Included is a collection of video interviews of beneficiaries of the ESF's outreach. These videos will be useful in implementing successful social media campaigns, and will provide the ESF with distributable content to post.

## 2. Background

This chapter provides information on the importance of updating the Emergency Services Foundation's website and expanding their social media presence. Here, the relevance of social media and the Internet in the Australian context is discussed. Topics addressed include: the mission of the Emergency Services Foundation and its importance to its stakeholders, social media marketing, statistics on Australian internet usage, best practices for website design and social media activity, and evaluating the effectiveness of a website.

### 2.1 The Emergency Services Foundation and Its Stakeholders

The Emergency Services Foundation (ESF) is a not-for-profit organization in Victoria, Australia founded with the purpose of aiding emergency service workers and their families. The organization was established in 1987 after the Ash Wednesday bushfires of 1983, in which 75 people were killed; of these deaths, 47 were in Victoria, where fires burned around 210,000 hectares and 2,080 homes (Victoria Department of Environment and Primary Industries, 2016). Over 16,000 firefighters and 1,000 police attended these fires. The Ash Wednesday bushfires were the worst bushfires in Australian history up until the Black Saturday bushfires in 2009.

At the time the volunteers who went out to fight fires and help their communities during times of disaster had little training compared to today's standards, no hi-tech protective clothing, no workplace safety organizations, and in the case that they were injured or worse, there existed no comprehensive welfare safety net to protect them and their families. The ESF formed as a response to such a need following the inquiry and subsequent report, post the Ash Wednesday Fires. Following this disaster, the ESF was founded to benefit police, firefighters, and paramedics and their families. The ESF supports a number of emergency service organizations, including but not limited to: the Country Fire Authority, Ambulance Victoria, The Metropolitan Fire Brigade, the Victoria State Emergency Service and the Victoria Police. These include some of the largest volunteer based emergency services organizations in the world, with 58,000 volunteer members in the Country Fire Authority alone (Emergency Services Foundation, n.d.a). The ESF supports these organizations through financial benefits for injured Victorian emergency service workers, emergency service related conferences, and research funding under the ESF Scholarship Scheme, which has awarded over 120 scholarships over a range of research projects (Emergency Services Foundation, 2014).

Part of the ESF's mission is to "provide financial relief/assistance for emergency services personnel and/or their families in the event of death or very serious injury of an emergency services worker whilst on duty" (Emergency Services Foundation, n.d.a). This assistance to injured emergency services workers comes in the form of a \$10,000 grant, with further support available to applicants who are still struggling to meet financial obligations. Statistics on the injury rates of emergency workers illustrate how important these grants are. A study of the workplace dangers paramedics in Australia encounter (Maguire, O'Meara, Brightwell, O'Neill, & Fitzgerald, 2014) revealed that the injury rate was "more than seven times higher than the Australian national average" and the fatality rate was "about six times higher than the national average." The study also found that "every 2 years during the study period, one paramedic died and 30 were seriously injured in vehicle crashes" and that "ten Australian paramedics were seriously injured each year as a result of an assault." The rates of serious injury among

paramedics and police officers were 94.6/1000 and 42.7/1000, respectively, while the average across all professions was only 13.0/1000. According to a study conducted by the University Wollongong work-related injuries of Australian firefighters from 1998 to 2007, “[o]n average, 697 firefighters (17.1% of the full-time work force) sustained an injury each year... and this showed an annual increase of about 50 injuries over this decade” (Taylor & Taylor, 2011). Emergency services are among the most dangerous professions in Australia. These workers risk their lives daily to protect and rescue others. Thus, the support the ESF provides is critical in helping the men and women who sacrifice so much for the safety of others when they are the ones in need of assistance.

Each year, the ESF hosts two emergency service related conferences, the Emergency Management Conference and the Volunteer Leaders Forum. The Emergency Management Conference provides a forum for professional networking and “the exchange of the valuable information gained by emergency services workers in the line of duty” (Emergency Services Foundation, 2016). This forum also serves as the primary fundraiser for the ESF. The Volunteer Leaders Forum exposes volunteer leaders to “a range of initiatives and developments in emergency management ... [to] improve their understanding of the latest in policy, doctrine, and technology [to] better prepare them when responding to emergencies ... [resulting] in better outcomes for the community.” (Emergency Services Foundation, 2016). Both these forums allow the different organizations within the emergency services to interact amongst each other, forming a sense of camaraderie, which results in better emergency responses benefitting the rescuers and the community.

The ESF also supports emergency service workers by providing them scholarships so that they may “undertake advanced studies in Australia or overseas” (Emergency Services Foundation, n.d.-c). The ESF Scholarship Scheme awards grants based on research topics related to emergency preparedness, and making the emergency service work more efficient and safer in general. Topics of study for the 2014 scholarships recipients were earthquake and tsunami safety, out of hospital cardiac arrest, preparedness and response to train incidents, and “best practice for managing contractors in the delivery of destruction, disposal and decontamination (3D) activities in an emergency animal disease response” (Emergency Services Foundation, 2014). To investigate these topics, the recipients traveled to Peru and the United States. The awardees bring the knowledge they have gained back home to share it with other emergency service workers at the Emergency Management Conference. This new information may include procedures that increase safety for emergency service workers and the general public. This research is crucial in advancing the techniques and response methods of Victorian emergency services, ensuring the safety of the general public and protecting the workers who risk their lives regularly.

### **2.1.1 The Duties of Emergency Service Workers**

Emergency service workers impact their communities daily, often placing themselves in danger in order to protect the lives of others. Emergency service work spans a variety of fields, each with its own risks and dangers. Emergency services consist of three main branches: Firefighting, Police, and Emergency Medical Services (EMS).

The safety of Australians depends on the rapid response of firefighters. The hot, dry, and drought prone climate of Australia places it at a high risk for bushfires, with areas of the country experiencing various fire seasons throughout the year. In Victoria, the fire seasons span the



Australian summer and autumn (Australian Government Geoscience Australia, 2014). The state of Victoria experiences both bushfires and urban fires due to its varying geography and climates. However, bushfires often cause the most damage and destruction. The two deadliest and most damaging bushfires in Australian history, the Black Saturday bushfires of 2009 and the Ash Wednesday bushfires of 1983, both took place in Victoria. The Black Saturday bushfires left 173 people dead and 414 injured in Victoria, resulted in the loss of over a million wild and domestic animals, and damaged around 450,000 hectares, or 1.1 million acres, of land (National Museum Australia). The 2015 - 2016 bushfire season for Victoria saw many instances of notable bushfires, with one of the most recent incidents in Victoria being the bushfires along the Great Ocean Road.

Bushfires continue to be an issue in Australia. Devastating fires on Christmas Day in 2015 destroyed 116 homes along the Great Ocean Road in the towns of Wye River and Separation Creek, and left at least 2,000 hectares burned (ABC News, 2016a). Figure 4 provides a glimpse of the destruction caused by these fires. Events like this destroy homes and displace families. The quick response of Australian firefighters, like those with the Country Fire Authority, during such fires prevents further damage and harm. The outlook for the 2016-2017 bushfire season appears no different for the state of Victoria. The Bushfires and Natural Hazards CRC released a prediction of Australia's 2016 bushfire season on September 1, 2016. It highlighted bushfire potentials and a majority of the state of Victoria was at an "Above Normal" risk for bushfires, illustrated in Figure 5 (Young & Lambert, 2016).



*Figure 4: Homes destroyed by Christmas Day 2015 fires along the Wye River (ABC News, 2016a).*

## SOUTHERN AUSTRALIA SEASONAL BUSHFIRE OUTLOOK 2016

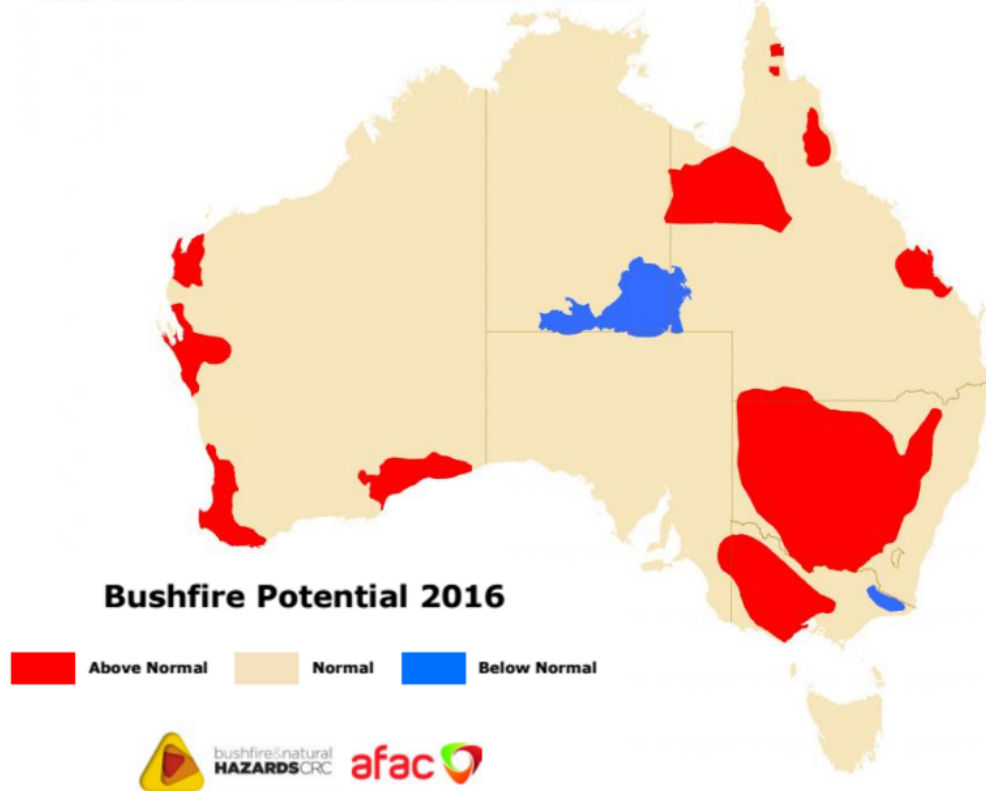


Figure 5: Forecast of bushfires in Australia in the 2016-2017 season. Adapted from (Bushfires and Natural Hazards CRC, 2016).

In Victoria, urban and residential fires are also commonplace. The Metropolitan Fire Brigade responds to these events, ensuring the safety of building occupants and minimizing damage to property and the environment.

In February of 2017, SKM Recycling factory in Coolaroo, a suburb of Melbourne, caught fire. This factory contained large amounts of flammable materials. The combustion of chemicals in the factory released toxic smoke. The fire, which began at 3:30am, was not brought under control until past 8am, after 125 firefighters from the Metropolitan Fire Brigade had responded (Bowden, 2017).

These firefighters exposed themselves to an uncontrolled fire and toxic smoke for nearly five hours to protect the surrounding city and residents.

In another incident, occurring on March 1, 2017, firefighters arrived to a home in Bellarine Drive, Lalor with the bedroom “fully alight with the fire penetrating the roof space and taking hold in the kitchen” (Metropolitan Fire Brigade, 2017). A joint Metropolitan Fire Brigade and Country Fire Authority crew managed to quickly control the blaze in just over ten minutes. The crew safely evacuated a mother and child and saved the house and neighboring homes from extensive damage.

These are just a two examples of the firefighters placing their lives in danger to perform their duties. Firefighters ensure the safety and protection of property and individuals on a daily basis, especially in Australia where bushfires are prevalent. These workers risk their lives regularly, and without this service, many lives would be placed in danger.

Police officers keep the peace in society. Their duties consist of performing investigations, preventing crime, and protecting the innocent. In the state of Victoria, the crime rate shows no signs of slowing down. As of September 2016, according to Victoria's Crime Statistics Agency, the total number of offenses reached 535,826 during the past financial year, this includes murder, assault, theft, and aggravated burglary (Percy, 1000). Overall, the crime rate rose 13.4 percent. As a result, the Victoria Police received nearly \$600 million from the Victorian Government to support an effort to combat gang violence and the rising crime rate (ABC News, 2016b). This package funds the addition of 300 new frontline officers, 106 specialist officers, and 52 support staff. The prevalence of crime illustrates the need for police officers to ensure the safety and wellbeing of the civilians of Victoria.

The Victoria Police serves the Victorian community through a variety of means. When individuals go missing, often the police are involved in the search effort. Their efforts and appeals for public assistance seek to help locate missing persons and return them to their families.

On December 28, 2016, 14 year old Callum Phillips went missing. He was located shortly after safe and well thanks to the work of the Victoria Police and the public (Toy, 2016).

Bringing criminals to justice not only increases safety, but also helps their victims cope. An example of this is when police search for perpetrators of sexual assault. Sexual assault is a traumatic experience for the victims, and it is important that sexual assaulters are arrested to prevent further acts and to help the victim achieve peace of mind.

The Victoria Police recently investigated a case of sexual assault in Kerang (Riverine Herald, 2017). On March 2, 2017, the Victoria Police successfully arrested a man who allegedly stole a car and was involved in an armed robbery.

By doing so in a safe manner, without any injuries or casualties, the police prevented further acts of violence and kept the public safe from a violent individual (Parsons, 2017). The Victoria Police ensures the safety of the community and brings those who threaten it to justice.

Tragedy can strike suddenly and medical attention must be administered rapidly, as seconds can be the difference between life and death. Emergency medical response improves cardiac arrest survival rates by reducing response times to patients in sudden cardiac arrest and other imminent threat to life conditions (Ambulance Victoria, n.d.-c). In the 2015-2016 year, 836,082 calls for emergency ambulances were made in Victoria. Of that 589,847 required paramedics and 477,851 emergency patients were transported to a hospital (Ambulance Victoria, n.d.-d). Ambulance Victoria provides quarterly reports on response times. For Quarter 2 in the 2016-2017 year, a majority of code 1 incidents, which require urgent paramedic and hospital care, in Victoria were responded to within 15 minutes. Figure 6 illustrates the rapidness in response offered by Ambulance Victoria.

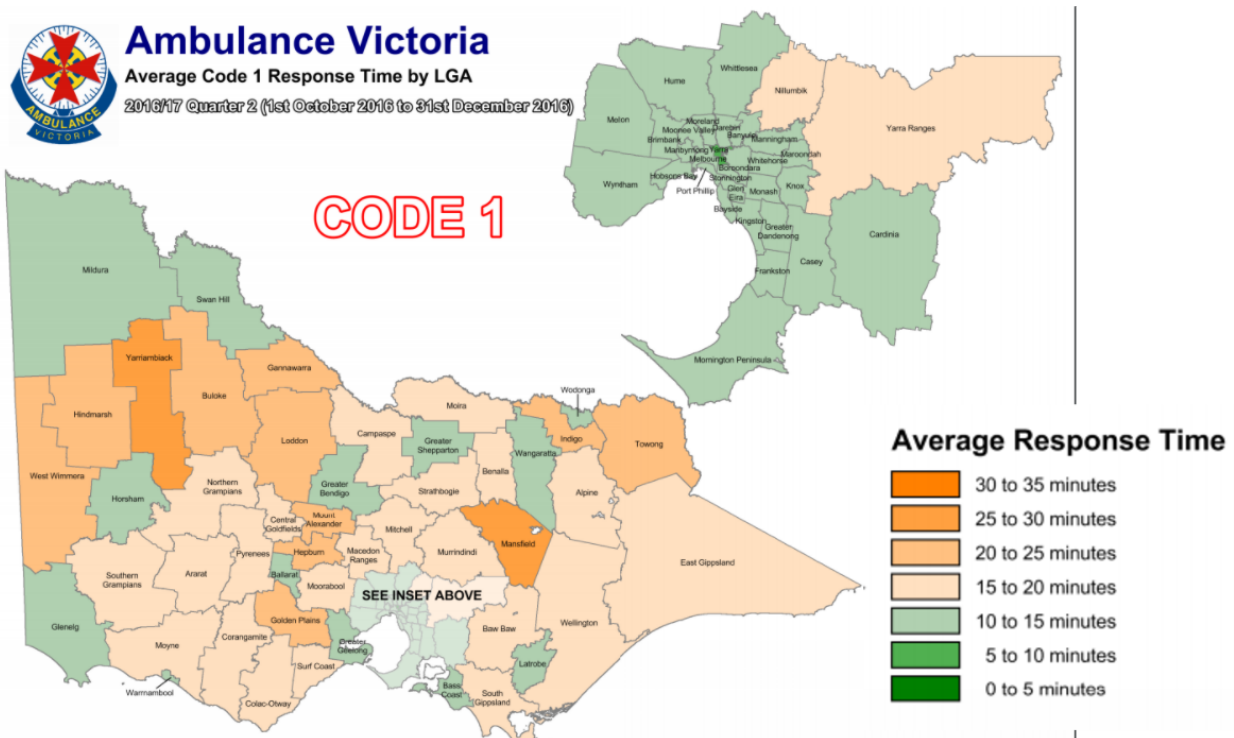


Figure 6: Code 1 response times for Ambulance Victoria. Adapted from (Ambulance Victoria, 2017)

Yearly, Ambulance Victoria attends approximately 5,000 cardiac arrests, and they have one of the highest cardiac arrest survival rates in the world; 35% of patients in metropolitan areas, who were seen to collapse, were found in shockable rhythm, and received professional CPR, survived (ASM, 2016).

Clare, a woman who had been fit and healthy her whole life, never expected to suffer from a cardiac arrest. However, one day she went for a swim, without warning she suffered a cardiac arrest while swimming at a pool. Paramedics defibrillated her six times and transported her to the hospital immediately. She was clinically dead for 40 minutes.

The fast action by the Ambulance Victoria paramedics is a key part of the chain of survival and gave Clare the chance to survive (Ambulance Victoria, n.d.-b).

Rapid response is highly affected by geographic location. The large geographic area of Victoria leads to varying degrees of remoteness, with areas ranging from rural to urban. Necessary medical attention can be hard to come by in remote areas. The Royal Flying Doctor Service (RFDS) was founded to fulfill the need for emergency medical response in remote areas, offering aeromedical and primary health care across Australia. The RFDS demonstrated their importance in the story of Stephen Daniel.

On a weekend in July, Daniel camped overnight at Cadney Park Homestead in South Australia's outback (Royal Flying Doctor Service, 2016). In the middle of the night Stephen experienced severe abdominal pain. His diaphragm had herniated, causing immense pain and placing his life in danger. With the aid of

Flight Nurse Michael Penno and an RFDS Pilatus PC-12 aircraft, Stephen was transported to an Adelaide hospital to receive emergency care in just over two hours, saving Stephen's life.

By road, this trip would have taken about 11 hours. The RFDS allows patients to receive the rapid emergency care that normally would not be available in remote and hard to reach areas. The quick actions of paramedics throughout Australia give the necessary attention to patients fighting for survival.

In addition to their services protecting and ensuring the safety of the public, emergency services organizations often involve themselves within the community through programs geared towards community development. These community involvement programs include developing relationships and promoting a safer and healthier community. The Victoria Police, for example, provides a variety of youth resource programs that encourage young adults to engage in positive social interaction (Victoria Police, 2017). Recently, with the engagement of local police, an after school mechanics group for disengaged and troubled teens helped restore an old car to road safety standards over 10 weeks (Cannon, 2017). The activities helped the students see the police in a positive light and develop useful skills, with one student securing a mechanic apprenticeship. Programs like this build better relationships between police officers and the community, helping reduce tension and the recent negative stigma associated with police forces.

Similarly, the Metropolitan Fire Brigade offers a variety of educational programs on fire safety. An educational program for children in prep grade primary school, Fire Ed for Preps, helps children develop a basic understanding of fire safety and view firefighters as community helpers (Kavanagh, 2009). 600 schools participate in the program annually. Through two school visits and associated homework, children learn the fundamentals of fire safety and what to do in the case of a fire.

Ambulance Victoria also offers similar school programs related to health and physical education, CPR, and recognizing medical emergencies (Ambulance Victoria, n.d.-a). The Get Linked program for secondary schools teaches students within the context of risk taking behaviors like alcohol and drug use. It also incorporates interactive strategies to improving knowledge on medical emergency recognition, administering CPR, and raising bystander awareness for use of defibrillators during CPR (Ambulance Victoria, n.d.-a). Such programs better inform the community and help individuals react when a disaster occurs.

Emergency service workers help their communities, immensely. They are there during and after disasters to help the injured and prevent further damage and injury. They rescue civilians and property, save lives, and keep communities safe. Furthermore, when they are not actively responding to an emergency, emergency service workers often get involved with locals to teach about self-improvement, developing relationships, and emergency preparedness.

### **2.1.2 The Experiences of Emergency Service Workers**

First responders are real-life superheroes, rushing towards danger rather than away from it just like those found in comics. However, unlike comic book superheroes these people are not invincible to danger. They go home to their families at the end of the day just like you and I, they enjoy hobbies like you and I, and they are also susceptible to harm like you and I. These heroes

place themselves at risk on a daily basis to protect the lives of others. Therefore, the odds of them going home to their families at the end of the day, is not the same, and as a result, efforts must be made ensuring that first responders continue coming home safe and sound, and have the proper support measures in place in the case of incidents for these heroes and their families.

Emergency service work is inherently dangerous, whether it be firefighting, police work, or responding to medical emergencies. The National Institute of Occupational Safety and Health (NIOSH) in the United States assessed occupational safety and health risks for emergency response personnel. According to the NIOSH, police and career firefighters are in the top fifteen occupations at risk of fatal occupational injury, and the traumatic fatality rate is four times higher for these professions than the average for all occupations. For emergency medical services responders, the fatality rate is about two and one-half times higher than the rates for all occupations. Australian statistics agree with American statistics, listing public administration and safety workers among the top ten most dangerous industries in terms of both total number and frequency of serious injury cases (Safe Work Australia, n.d.), while Australian paramedics have the sixth highest rate of occupational injury nationally (Maguire, O'Meara, Brightwell, O'Neill, & Fitzgerald, 2014).

According to the NIOSH, the most frequently experienced injuries by firefighters are traumatic injuries, cuts and bruises, burns, asphyxiation and other respiratory-related injuries, and heat stress. At the fire scene, physical stress and overexertion, falls, being struck or making contact with objects, and exposure to fire products are the primary causes of injury. The primary causes of death are physical stress, being lost or trapped in a fire situation, and vehicle crashes, with physical stress being responsible for nearly half of all on-duty deaths. Traumatic injuries, and cuts and bruises are the most common injuries to police, often resulting from vehicle-related accidents, falls, assaults, and physical stress. The most line-of-duty deaths are a result of vehicle accidents or assaults, with nine out of ten deaths being attributed to these causes. Falls, assaults, vehicle-related crashes, and stress and overexertion are the leading causes of injury for police officers. In regards to emergency medical services, injuries and hazards are scarce and far less definitive, however, according to Sydney paramedic Allison Moffitt, one in five paramedics are injured yearly, and paramedics are injured at twice the rate of police (Ford, 1100). A study of the workplace dangers paramedics in Australia encounter (Maguire, O'Meara, Brightwell, O'Neill, & Fitzgerald, 2014) revealed that the injury rate was "more than seven times higher than the Australian national average" and the fatality rate was "about six times higher than the national average." The study also found that "every 2 years during the study period, one paramedic died and 30 were seriously injured in vehicle crashes" and that "ten Australian paramedics were seriously injured each year as a result of an assault." The rates of serious injury among paramedics were 94.6/1000, while the average across all professions was only 13.0/1000. Emergency medical services personnel are most at risk for sprains, strains, and back injuries, and are also at a high risk of infectious disease exposure (NIOSH, 2013). Aircraft and vehicle crashes attribute to nearly all on-duty deaths in paramedics (NIOSH, 2013). These assessments provide valuable insight in understanding the types of risks emergency service providers encounter on a daily basis.

Between the years of 1990 and 2001, an average of 97 firefighters and 155 police officers died each year, with an average of at least 11 non-firefighter emergency medical services personnel dying each year between 1998 and 2001. Though efforts have been made to improve first responder safety by enforcing extensive training, providing proper equipment, and

implementing better risk assessment practices, emergency service worker injury and fatality rates are still alarmingly high. For local volunteer fire and police agencies, approximately 88,000 firefighters are injured yearly, with about 2,000 injuries considered potentially life threatening. Approximately 100,000 police officers were injured in 2000. In 2012, there were 83 on-duty firefighter fatalities, translating to 2.33 firefighter fatalities per 100,000 fires (Fair, 2011). These statistics are also based on solely on what is considered routine activities, not taking into account high-risk non-routine activities such as natural disasters, major hazardous materials emergencies, structural collapse, and terrorism response. High-risk events such as these, place many more responders at risk for injury or death. On September 11, 2001 during the collapse of the World Trade Center, more than 400 first responders lost their lives, including 343 firefighters, 60 police officers, and 15 EMTs. It was also estimated that 2,000 additional first responders were injured from the event (Hall, 2013). Not only that, many responders developed new or worsened respiratory problems as a result of exposure to large quantities of aerated asbestos and other harmful particulate matter; by 2008, 204 first responders had perished as a result of cancer or lung diseases caused by exposure to World Trade Center dust (Clancy, 2010). The Ash Wednesday bushfires is another example of a large-scale disaster event and the Emergency Services Foundation is based around providing the mass support needed for emergency service workers in the case of such an event. This is especially important, because oftentimes the available resources for emergency workers is lacking. One major issue facing first responders is funding. In the United States, “federal support for the first-responder community has lacked a comprehensive and cohesive strategy since the first large-scale program of financial and training assistance was authorized by Congress in 1996” (Spencer J. and Scardaville M., 2002). Not only is the funding for these programs lacking, but so too are programs to help workers and their families who are injured in the line of duty. As a result, the Emergency Services Foundation makes up for these types inadequacies and ensures the support for these selfless heroes.

The NIOSH also highlights that occupational illnesses are also risks for emergency responders, with mental health issues such as cumulative stress, traumatic stress, and post-traumatic stress disorder (PTSD) being of concern for emergency services. Expanding on major disaster events, the traumatic nature of these disasters can have significant effects on individual responders and on response organization as a whole. First responders often worry about their families while working, which affects their performance and may result in an increased risk of injury (Fair, 2011). Recently, a study was completed on psychological injury in Australian firefighters. This study found that, “consistent with previous research ... firefighters report[ed] higher rates of PTE [potentially traumatic event] exposure and PTSD than the Australian population. There was evidence that trauma exposure, social support, and coping style significantly contributed to levels of PTSD symptomatology” (Skeffington, P., Rees, C., & Mazzucchelli, T., 2016). This increased risk for psychological trauma is the result of multiple factors, including the stressful environment in which firefighters work. Bryant and Guthrie explain, “emergency service personnel will confront situations that involve human suffering, danger, and death at elevated levels as compared with the general population and firefighters are at elevated risk of PTSD and other mental health issues (such as depression), as a result of duty-related exposures” (2007). Skeffington and colleagues found that prevention or treatment interventions may be the most effective method of reducing the use of maladaptive coping strategies, such as distraction, substance abuse, and self-blame, while also having the benefit of helping to build adaptive coping strategies. Emergency service workers perform a variety of duties to ensure the safety and wellbeing of the general population. These duties expose them to

a variety of traumatic situations on a regular basis.

According to a study conducted by the University of Newcastle, “Inadequate staffing, resources and poor communication are putting firefighters' lives at risk” (Pearson, 2013). A Geelong firefighter said workers' health “did not seem a priority.” Though it is widely understood that first responders take risks to protect others, much of the general public does not understand what these risks are or the first responders are affected by their line of work. Being a first responder is an incredibly stressful job, and these jobs are frequently understaffed. Due to the high stress levels, in addition to PTSD, many firefighters and other first responders are at heightened risk of “acute stress disorder,... , major depressive disorders, hypersensitivity and substance abuse” (Pearson, 2013). The same study stated that one member of the Country Fire Authority (CFA), an ESF member organization, felt that due to the CFA being male-dominated it was necessary for members to seek support themselves (Pearson, 2013). While both the CFA and Metropolitan Fire Brigade (MFB) have services in place for those first responders under their name, they are limited. The MFB provides emotional support for employees and their families and educates on stress in addition to providing counseling. Since these support systems require firefighters to opt in, such services will not be used to their full capability should they not be well publicized or should they be stigmatized within the culture of the organization.

Police officers must be ready to encounter distressing situations. In an article on news.com.au by Sharday Stirton (2016), Australian police officers describe the difficult experiences they have had while on duty. One officer, called Nathan, tells the story of when he was called to a home where a SIDS death had occurred on Christmas Eve. He details the lasting impact this event had on him: “How can you go home to your wife and your own newborn and be the same? I think of that child I never knew every Christmas.” Another officer, called Karen, describes a haunting experience that she had involving the attempted murder/suicide of a mother and her two children. Like Nathan, she connects this to her personal life, saying, “as a mother of three, I think about this a lot.” Police forces and other agencies offer resources “dedicated to mental health and emotional survival,” Nathan says, “but despite this, the changes to an officer’s personality were inevitable.”

Paramedics, too, are frequently confronted by difficult circumstances. With the responsibility of coming to the aid of those who have been injured, paramedics can often be put in dangerous situations and may be exposed to high levels of trauma. After large-scale disasters, there are often not enough paramedics available to treat everyone and tough decisions must be made on who should be helped first. An example of this was in January of 2017, when a truck was driven into a mall on Bourke Street in Melbourne, killing six people and injuring thirty (Toscano, 2017). Paramedics from Ambulance Victoria arrived on the scene and were forced to make difficult decisions on whom to prioritize treating. Many paramedics found this experience devastating and would have been overwhelmed if not for the intervention of nearby citizens who volunteered to help the paramedics administer aid and manage the devastating situation. These are just few examples of traumatic experiences emergency service workers experience on the job.

The ESF’s outreach programs help these workers overcome some of the issues they face as a result of their careers. Whether the help comes in the form of monetary support to ease the financial burden of a work injury or in the form of scholarships to advance education and



improve response practices for the safety of all, it is certainly meaningful and impactful.

### **2.1.3 The ESF's Need for Improved Online Communication**

The mission of the Emergency Services Foundation is to aid emergency service workers struggling with issues described above and to help emergency service workers maintain the highest standards of practices and safety in their fields. In order to communicate more effectively with these workers, the organization is currently seeking to improve its website at [esf.com.au](http://esf.com.au) and increase engagement with its stakeholders through social media. The ESF has not kept up with the rapid changes in the Internet, and currently prioritizes the creation of an up-to-date, interactive website to help expand its outreach. We also hope that this project will help the ESF from an economic standpoint. The Foundation was for most of its history self-sustaining backed by investments and federal funding. However, since the global financial crisis in 2008, the ESF has become more reliant on donations and fundraising to continue carrying out its mission and providing services to emergency response workers, especially in the event of a large-scale disaster. Currently, the ESF lacks an easy way for visitors to donate or purchase products for fundraising on its website and is therefore likely not generating as much charitable income as it potentially could be. This project will help the ESF with this task in the hopes of enabling the organization to increase donations and increase general awareness of itself and its cause, which will in turn allow the ESF to provide support to more workers who need it.

Currently, the strength in the ESF's website lies in the wealth of information that it provides. According to Greenberg and MacAulay's report on the web presence of Canadian nonprofits, an "About Us" section, a logo, contact information, a mission statement, annual reports, and a detailed history of the organization should be present on an organization's website (2009). All of these items are included on the ESF's website, while at the time of Greenberg and MacAulay's report, only half of the sampled organizations included annual reports or an organization history. Also, the website includes links to the websites of affiliated organizations, which Lampe and Hou claim helps to improve relations and may in turn increase traffic to the ESF's own website (2016).

Weaknesses in the ESF's online presence lie in the lack of interactivity. The organization's website is easily navigable, but there is nothing attracting attention to its pages. The site is heavily text-based. As seen in the example below in Figure 7, white space fills much of each page and images tend to appear at the bottom of the page. The website contains one video, increasing the interactivity of the site. However, the inclusion of more images and/or videos would help the ESF demonstrate their mission and their constituency, in the same way the photograph of their alumni does on the "Scholarships" page. In addition, currently there is no easy way for the ESF to update its stakeholders unless they go to the ESF website. There is no way to sign up for a newsletter online and no links to social media accounts exist. Without active social media accounts, the ESF limits its ability to disseminate information and increase the public's awareness of the organization. A more interactive online presence would open up a new

avenue for the ESF to maintain relationships with stakeholders and build an organizational community.

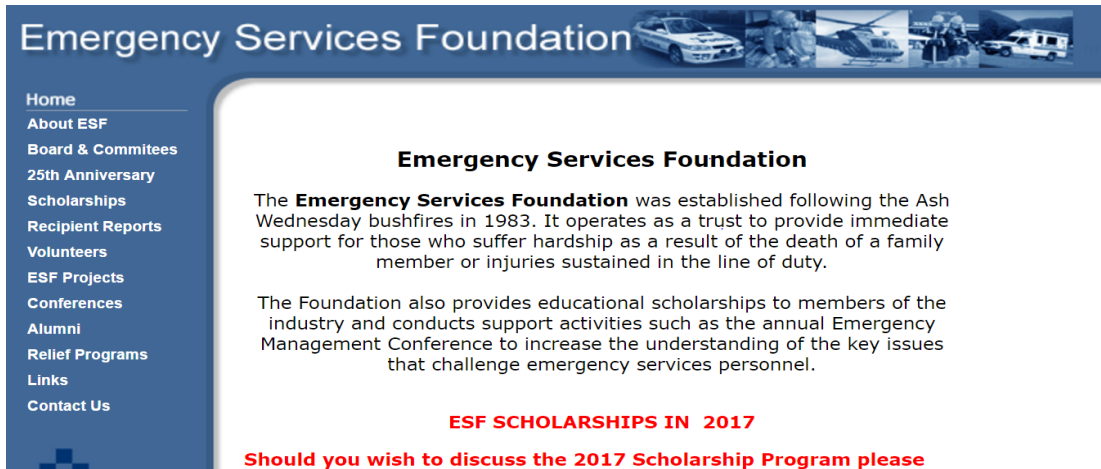


Figure 7: The Emergency Services Foundation Website at [esf.com.au](http://esf.com.au) (Retrieved 23 Mar. 2017).

A model website for the ESF may be that of the Coast Guard Foundation. Like the ESF, the Coast Guard Foundation is a nonprofit with a mission of helping workers in a specific profession, in this case members the U.S. Coast Guard. The Coast Guard Foundation “provides education, support and relief for the brave men and women” of the U.S. Coast Guard (Coast Guard Foundation, n.d.). This mission is almost identical to that of the ESF. Powered by Non-Profit Soapbox, The Coast Guard Foundation’s website at [coastguardfoundation.org](http://coastguardfoundation.org), pictured in Figure 8, has an information-rich frontpage with easily navigable drop-down menus to direct visitors. It has many pictures of members and stakeholders as well as a vibrant color scheme. Importantly, it has links to allow visitors to easily donate and learn about how their donations help.

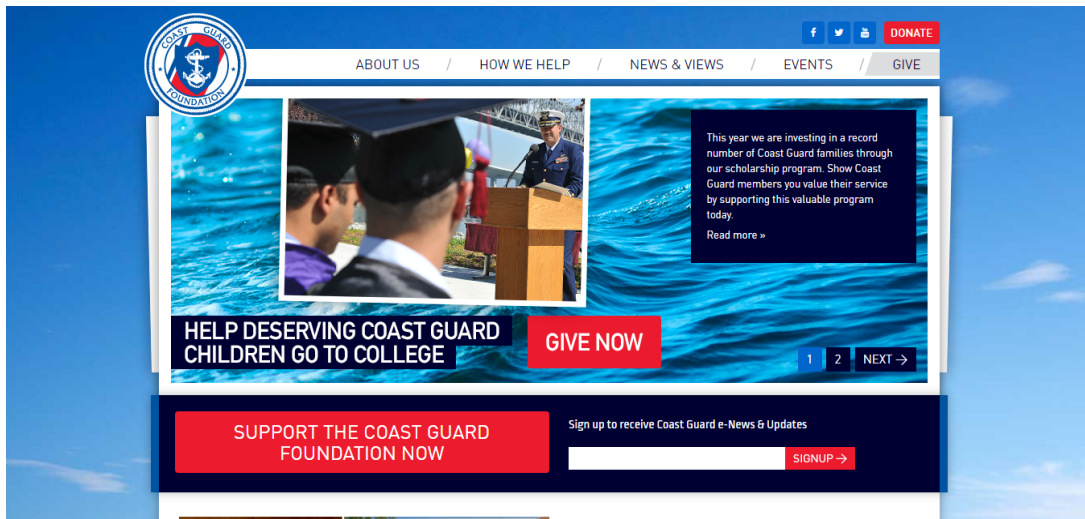


Figure 8: The Coast Guard Foundation website at [coastguardfoundation.com](http://coastguardfoundation.com).

Fallen Linemen is another case of a nonprofit organization which could be used as a basis to improve the ESF’s website functionality. Fallen Linemen is an organization based out of Louisiana which provides financial relief to families of workers who are killed repairing electrical lines. Aside from the considerable similarity between organization goals, the ESF and FL also have analogous stakeholder needs. However, FL’s website at fallenlinemen.org and social media execution appears to place them in a position of increased visibility. Fallen Linemen’s website, designed by theDigitalMuse, provides easily access links to each section. The website also provides clear paths to donation and various donation plans (Fallen Linemen Org, n.d.). In terms of social media presence, clicking the connect button near the top-right of the website automatically redirects the user to the bottom of the website where an informative interface displays all details for connecting to host social media accounts. As shown in Figure 9, this appears to be the main strength of the website, effectively funneling users to FL’s Facebook, Instagram, and Twitter.

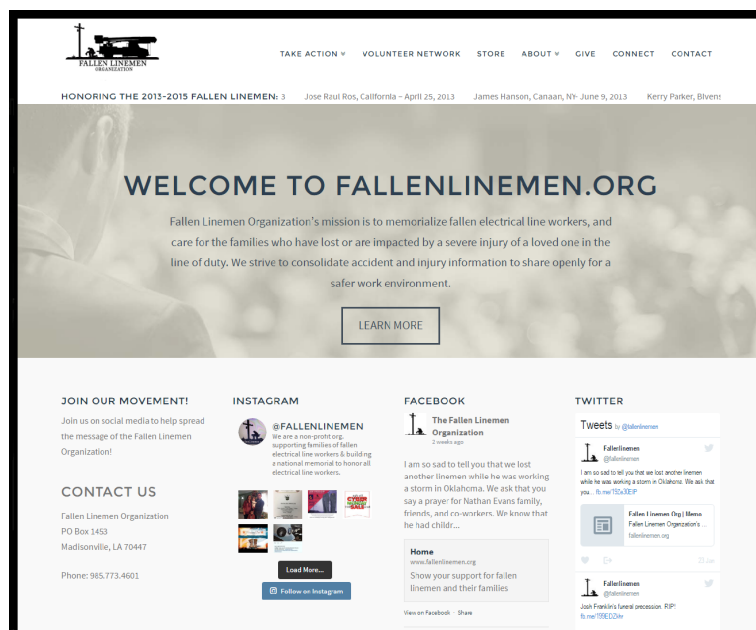


Figure 9: The Fallen Linemen website at fallenlinemen.org.

Compared to both the ESF and Coast Guard Foundation, Fallen Linemen provides the most direct service for connecting users to its social media arms. It also provides adequate content on each social media account, providing updates on linemen across America. As shown by the most successful nonprofits, new content is essential to increase audience. However, maintaining a user-friendly website is also significant. The Coast Guard Foundation has the smoothest transitions between target pages. The drop down menu creates a user-friendly means of directing traffic to desired pages. It also has many more pages that users would find of interest and, overall, more content displayed on the website alone. Both the CGF and FL provide a useful amount of photos, and both clearly outline organization goals. Appendix G offers a detailed analysis of model websites. An improvement to the ESF’s website might include a combination

of the user-friendly access of the CGF website with the new age, social media focused website presented by Fallen Linemen.

## **2.2 Marketing and Social Media**

In recent years, online communication platforms such as social media have seen rapid growth. A 2015 Pew Research study found that 65% of American internet users utilize social networking sites (Perrin, 2015). In fact, five of the twenty most visited websites worldwide are social networks, including Facebook, Instagram, and Twitter (Alexa, n.d.-a). The number of social media users has increased dramatically in recent years. In the United States, the number of internet users using social media has grown rapidly, from only 10% up to 70% in the ten years from 2005 to 2015 (Perrin, 2015). Today, Facebook boasts over 1.7 billion users, while Instagram has 500 million and Twitter 313 million (Statista.com, n.d.).

Internet access is considered ubiquitous in Australia and has rapidly grown in the past 20 years. According to data from World Bank (n.d.), 84.6% of Australians had internet access in 2015, versus only 3.3% percent in 1996. In terms of daily internet use, Australia ranked first among 40 countries, with 77 percent of Australian internet users accessing the web “several times a day” (Poushter, 2015, p. 14). The same study found that 93 percent of Australians stated they either at least use the Internet “occasionally” or own a smartphone, with 77 percent of Australians stating they own a smartphone. Along with this widespread internet access, social media usage in Australia is just as pertinent. In 2009, the number of Australians using social media spiked, increasing by 2 million, or 29% (Radwanick, 2009). Social networking users comprised nearly 90% of the audience base of the top internet properties in Australia, with three out of four Australians visiting a social networking site in the month of June according to a comScore Segment Metrix in 2009 (Radwanick, 2009). As of a 2010 Nielsen social media report, 9 million Australians had some form of interaction with a social networking site (Sultana, 2010, p. 1). This represents a complete paradigm shift in communication and information access in just one decade.

### **2.2.1 Nonprofits and Social Media**

With the increasing importance of maintaining regular communication with customers and constituents, businesses and organizations have begun to utilize their websites and social media accounts as new, necessary channels of communication. Nonprofit organizations in particular have sought relevance in this social media age. Many have found success through online marketing. Studies have suggested that, “online [nonprofit/stakeholder] interactions have become more and more ubiquitous, multifaceted, and critical to organizational performance” (Lovejoy, Waters, & Saxton, 2012,).

Studies have been performed to determine guidelines for a nonprofit to achieve maximum relevance in the Internet landscape. These studies recognize the importance of maintaining an

informative, interactive, navigable website, and active social media accounts. Through both mediums, these organizations can maintain a two-way channel of communication with stakeholders. Websites are both the “public face” of the organization and the vehicle through which meaningful public interaction can take place (Lovejoy, Waters, & Saxton, 2012). They provide a controlled channel in which organizations can communicate with stakeholders and the media, and therefore website design should be strategic in order to improve responsiveness to stakeholder needs (Kent, Taylor, & White, 2003). Just as important, if not more so, is an organization’s social media presence. Social media sites allow for rapid exchanges of information, including real time feedback, and stakeholder engagement (Lovejoy, Waters & Saxton, 2012, p. 313). By posting strategically targeted content, organizations can mobilize stakeholders, build meaningful relationships, and foster increased accountability and public trust via social media alone (Saxton & Guo, 2011).

Nonprofits that choose an active role in social media, or an active online status, see some significant benefits. Nonprofits rely on donations, so upkeep of a website where supporters can donate is essential to an organization's success. As early in the life of the Internet as 2001, 92% of the 50 highest income nonprofits had at least one connection to social media displayed on their website. The most monetarily successful nonprofits have not ignored social media. Financial gain is not the sole reason a nonprofit would choose to be active online. Dissemination of information and mission status is greatly improved via utilization of social media and website updates (Berthon, Pitt, Plangger, & Shapiro, 2012). Due to the fact that the Internet is borderless and international, mission based NPO's benefit largely by rallying global followers around their cause.

Several studies have concluded that the main goals of social media practices for an organization should be to build strong, lasting relationships with its constituents, thereby forming a sense of community. The FRAXA Research Foundation performed one study that focused specifically on nonprofit organizations and their social media relevance. User demographics and engagement from FRAXA’s Facebook, Twitter, and YouTube accounts were analyzed in order to develop suggestions on posting to reach a wider audience and increase the amount of donors and volunteers (Al zuhairi, Huot, Rielly & Vairagade, 2016). Others have researched how various organizations are using social media to build relationships. The American Red Cross is an example of an organization that has established two-way communication via social media, allowing the organization to develop relationships with its stakeholders. According to an in-house study done by the American Red Cross, the organization’s various social media accounts increased interaction with potential donors and volunteers more so than other methods (Briones, Kuch, Liu & Jin, 2011). Through effective implementation of social media, the American Red Cross was able to cultivate a larger sense of community and more easily mobilize volunteers.

Other organizations have shown the power of social media in fundraising and mobilizing members. The nonprofit charity: water, an organization dedicated to bringing clean, potable water to people in need has been very successful in raising money by being active on social

media. In a joint campaign with the 2007 YouTube Nonprofit Program, charity: water collected more than \$10,000 in one day alone (Greenberg & MacAulay, 2009). In 2009, charity: water again demonstrated its social media prowess when the organization split a \$100,000 donation from actor Hugh Jackman with Operation of Hope by convincing him of the worthiness of its cause in one tweet (a maximum of 140 characters). Greenpeace is another organization that has been successful with online media. Greenberg and MacAulay (2009) describe the organization's successful strategies, such as its "frequently updated, information-rich, interactive media centre" (pictured in Figure 10) at greenpeace.org, and they note that the result of these strategies is that the organization has become "arguably the world's most ubiquitous environmental activist group." These examples show why being active and up-to-date online is essential for the success of an organization.

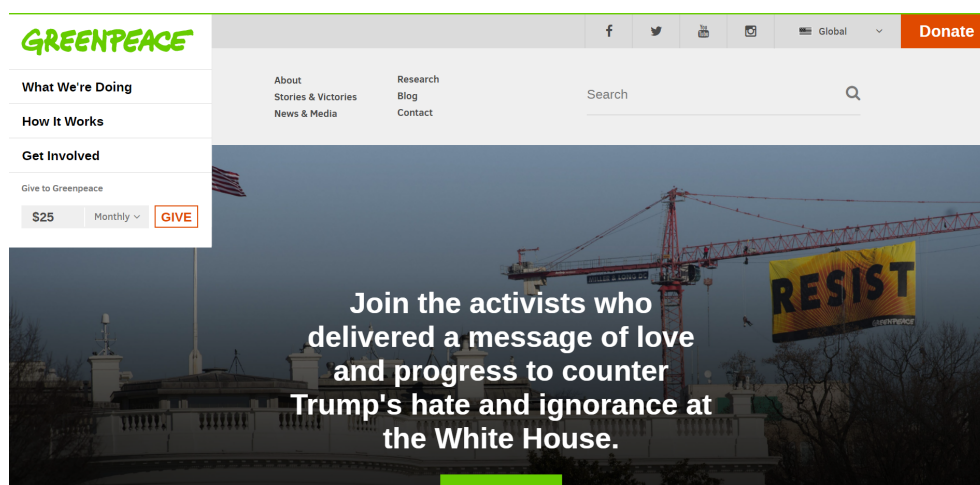


Figure 10: The Greenpeace website at greenpeace.org.

## 2.3 How Australians Use the Internet

Understanding the ways in which an audience uses a medium is essential to more successfully connect to them through it. In this section, we take a deeper look at the penetration rate of the Internet in Australia and how and why Australians use the Internet.

Internet use is extremely common in Australia. A report from the Australian Bureau of Statistics (2016a) found that, in 2014-15, 97% of households with children under the age of 15 had internet access while 82% households without children under the age of 15 had internet access. Overall, 85% of all individuals aged 15 and older used the Internet for personal use. Of these users, 94% accessed the Internet via desktop or laptop computer and 84% accessed the Internet via mobile or smartphone. Tablets are only used by 62% of internet users. In order to accommodate the maximum number of Australian internet users, organizations should optimize their websites for both desktop and mobile platforms.

How and why Australians use the Internet are further considerations to take into account when assessing internet usage. The same report (2016a) found that mean time spent on the

Internet across all age groups was 10 hours per week. As the chart in Figure 11 shows, the highest reported internet use was among younger people, age 35 and under. While reasons for access varied from entertainment to formal education to banking, social networking was among the most popular. Social media use was the top reason for accessing the Internet among the youngest group studied (15-17) and the second most common among the oldest group studied (65 and older). From these findings, it is evident that a social media presence has the potential to greatly increase exposure. Despite this, only 48.6% of Australian businesses had any sort of website presence and only 34% had a social media presence in 2014-15 (2016b).

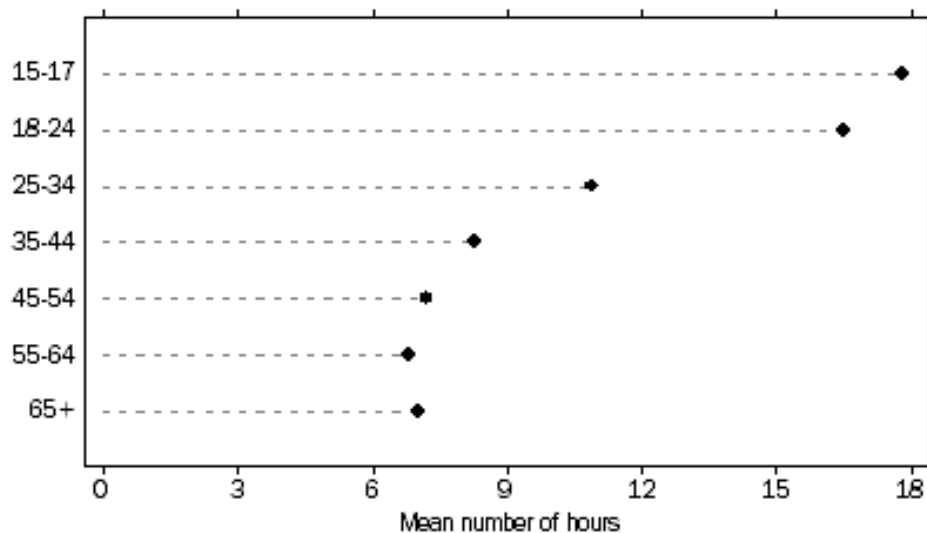


Figure 11: Weekly Australian internet usage by age group (Australian Bureau of Statistics, 2016a).

## 2.4 Best Practices for Website Design and Social Media Activity

While in different economic sectors, many similarities exist between corporate and nonprofit web design. Both seek to achieve the goal of attracting and informing visitors of the services the organization provides as well as to demonstrate its worth. As a result, there is some overlap in beneficial design characteristics, allowing for the transfer of many of the best practices for commercial web design into the nonprofit sector.

Corporate web design changes constantly, attempting to lure in new customers without alienating repeat buyers. Most web pages today are focused on a primarily visual experience. When a user first visits these sites, they are met with large photos and minimal text. The text that is present tends to be large and in the general styling of headlines. Furthermore, companies can benefit from integration of the social media directly into their websites, in the form of links to social media accounts. This is important because it allows for two-way communication instead of just one-way “broadcast” style communication and “in the age of customer experience management, knowing that you’re valued and heard makes all the difference” (Gioglio, n.d.).

A website that follows this mode of thought is Entrepreneur.com, visible in Figure 12. The visitor’s eye is immediately drawn to the top of the screen where headlines of a few articles

hosted on the website are featured. These headlines are imposed over relevant photos designed to draw the user deeper into the website. Above these links is a minimalistic navigation bar that blends into the background to improve the aesthetic appeal of the site while simultaneously increasing its navigability. Scrolling down the website shows their trending and most viewed articles as well as what they call “daily highlights.” This allows the company to bring immediate attention to new content. As a result of the heavy use of graphics and clean design, the website’s attractiveness helps draw the user in and increases the time spent on the site, a desirable trait for corporate and nonprofit websites alike. As the prevalence of social media and online marketing continue to grow, organizations involved online will continue to seek methods of ensuring the success of their various online platforms. As a result, the need to determine the best methods of measuring this success becomes more pertinent.

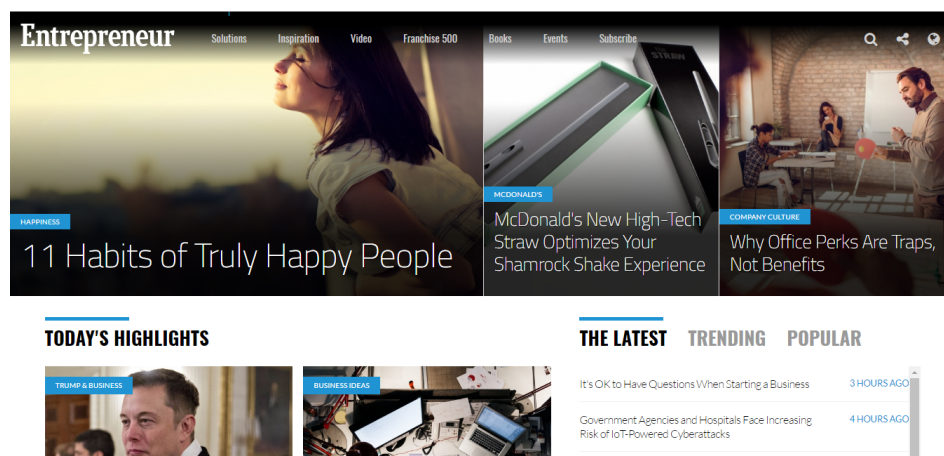


Figure 12: The Entrepreneur website at entrepreneur.com.

## 2.4.1 The Importance of Web Security

As the interconnectedness of the world continues to increase through the Internet, security has become a top priority for large businesses, governments, and many other organizations. In 2010, the Australian census was shut down due to malicious attacks on the census website. As a result, the Australian government decided to take down the site, resolve the vulnerabilities, and then restore the site as a way of preserving the integrity of the data. According to an expert quoted in an article by ABC news, normally when connecting a new device to the Internet, “within 15 minutes someone is knocking on your door, trying to get in. Any online system needs to be built to be resilient to this” (2016). According to Juniper Research, cybercrime will cost businesses over \$2 trillion USD by 2019 (2015). They cite an increase in the “professionalism of cybercrime,” noting that there has been a decrease in casual attacks. These professional attacks, however, are increasingly common; the Cyber Emergency Response Team (CERT) Australia “responded to 14,804 cyber security incidents affecting Australian businesses” between July 2015 and June 2016, and the number of attacks are projected to increase in the coming years (Australian Cyber Security Center, 2016).



Automation of attacks is possible because of the widespread use of similar web design software and the vulnerabilities therein. There exist codes, known as crawlers that surf the web. Some are used by companies like Google to index websites. However, many others are used with malicious intentions and try to breach websites using a specific vulnerability. Vulnerabilities in websites may be the result of plugins used with the content management system (CMS) to gain access to a site or post links to forums. Many CMSs include security features to protect a site, but sometimes this is not enough. For WordPress, a framework frequently targeted due to its widespread use, there are plugins, such as Wordfence, that increase security by removing IPs that demonstrate similar tendencies to malicious bots. However, like CMSs, plugins can also be targeted by malicious software as hackers exploit flaws in the code. When this happens or when the developer notices a flaw, an update is released to improve security. To reduce risk of getting hacked, it is important to keep the CMS and all plugins up to date. In summary, while the Internet is a useful tool in connecting people, it also opens users up to security risks. Care must be taken to reduce the potential of successful attacks and it is important for an individual or organization to remain aware of the risks they face by hosting a website.

## **2.5 How to Assess the Effectiveness of a Webpage**

In order to design an effective website, it is necessary to decide what constitutes effectiveness. This is difficult to define, since effectiveness can be measured both qualitatively and quantitatively. Many studies have been conducted with the goal of determining what aspects make a website effective and establishing metrics with which to measure these aspects.

Measuring effectiveness in website design is difficult because the definition of success changes depending on the perspective the stakeholder adopts (Schaupp, Fan & Belander, 2006, p. 2). Website goals vary depending on the perspective taken, which could be that of the website user or the organization. An organization's definition of success might be the website's ability to create an ongoing relationship with a user. The effectiveness of the website in accomplishing this goal might then be measured with clickstream data. However, site effectiveness is not solely tied to navigation patterns, but also the degree to which the site helps an organization accomplish its mission. There are a variety of factors and constructs that have been investigated that can be used to define webpage success.

In the context of an online community, which coincides with the type of website associated with the ESF, website satisfaction is dependent on information quality, perceived effectiveness, and social influence (Schaupp, Fan & Belander, 2006, p. 8). Information quality significantly predicts satisfaction; Schaupp and colleagues found that users put more value on information quality, usefulness of the website, and their peers also using the site than on the overall usability of the website. They also mentioned that it is important to understand that website satisfaction is both goal and context specific, and, as a result, one model is not sufficient in determining all the factors of success in the contexts of a website.

Other studies have investigated various other factors and their relationships that give a better understanding of website usability. In the context of a 2012 study done by Lee and Kozar (as cited in Agarwal & Venkatesh, 2002), web usability refers to “the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified website of use.” Other theoretical models for website usability include Vitruvius’ architectural quality model, models based on the Microsoft Usability Guideline (MUG), and the landscape preference model to name a few (Lee & Kozar, 2012, p. 451). All of these models utilized the same or similar constructs for website usability. Lee and Kozar identified their own constructs based on these and narrowed it to consistency, supportability, learnability, simplicity, interactivity, telepresence, and readability. Table A1 in Appendix A gives descriptions for these constructs. This study determined that simplicity and consistency have a significant effect on interactivity, telepresence, navigability, learnability, and readability. Embedded social networking features were also found to augment site credibility by providing sources of information given by other social networkers. Lee and Kozar (2012) note that “as social networking features... become pervasive, e-business sites have rushed to integrate [these] features into their websites, enabling enhanced interactive communications between consumer or between consumers and companies” (p. 458). The study concluded that website usability is becoming increasingly important as organizations compete in hypercompetitive online markets, and as a result “the design of a usable website is pivotal to e-business success” (Lee & Kozar, 2012, p.458). Therefore, having reliable and valid measurements for usability are crucial.

These constructs and factors are all qualitative measures of website success. However, businesses and organizations have also utilized information technology research in order to measure success quantifiably. In the words of Forbes editor, Jayson DeMers, “measurement is what makes marketing a science” (2014). DeMers states that the ten marketing metrics necessary for businesses to measure are total visits, new sessions, channel specific traffic, bounce rate, total conversions, lead to close ratio consumer retention rate, customer value, cost per lead, and projected return on investment. Our research suggests that, from the perspective of a nonprofit, the most relevant metrics are total visits, new sessions, channel-specific traffic, and bounce rate, described below in Table 1.

*Table 2: Metrics for website effectiveness. Adapted from (DeMers, 2014).*

Metric	Purpose
Total Visits	Provides a good, broad indication of how well an organization’s campaign is driving traffic.
New Sessions	Describes the number of new and recurring visitors, illustrating how effective outreach efforts are and how “sticky” the site is.
Channel-specific Traffic	Illustrates the point of origin of the user.
Bounce Rate	Defines the percentage of visitors that leave the website upon entering, without further exploring the website.

Gabe Wahhab, Director of Interactive Services at Square 2 Marketing, mentions click-through-rate of call-to-actions (CTAs) as another useful metric to follow (2016). CTAs are the various pages and buttons that can be clicked on a web page and are a good measure of user activity on the site. The State Government of Victoria also provides recommendations for measuring website effectiveness (Business Victoria, 2015). The recommended measures are engagement metrics, such as time spent on page/on site and pages per visit, as well as conversion metrics, like completed online forms, sign up or subscription to a newsletter, and downloaded resources from the site. More specifically in terms of social media, metrics such as number of followers, views, shares, backlinks, and mentions are good measures of content results. Search engine association and features in relevant industry publications are also useful methods for measuring content results. Some useful tools for measuring and monitoring these metrics are Google Analytics, Facebook Insights, and Mention (Business Victoria, 2016). Analytics is an important aspect of marketing science and many organizations have benefited significantly from utilizing these resources.

### **2.5.1 Examples of Organizations that Have Benefited from Analytics**

Several organizations have significantly improved their financial performance and member participation by bolstering their online presence, much of which is improved through data collected from various analytics. The information can be helpful to nonprofits in analyzing and coordinating targeted fundraising campaigns, mobilizing staff and volunteers, efficiently compiling reports, and meeting regulations (Staff, 2016). Among the companies that have benefitted from this tool are Fairmont Hotels & Resorts and the American Cancer Society.

Fairmont Hotels & Resorts used Google Analytics to better understand where the company's web traffic was originating. A case study published by Google Analytics (2013) describes the problem:

“a significant proportion of Twitter traffic doesn't originate from twitter.com; many Twitter users don't use the web interface, instead employing one of the many desktop clients or mobile apps available. In addition, a link that's been posted on Twitter might be forwarded via email or SMS. In all these cases, any traffic which in theory should be attributed to Twitter activities will be reported as direct or other referral traffic.”

By tagging links, Fairmont utilized Google Analytics to correctly accredit the outside traffic that came from links originally posted on Twitter. This allowed them to get a much more meaningful understanding of the impact of their social media campaigns and adjust their strategies accordingly.

In 2012, The American Cancer Society, expressed difficulty understanding users' interactions with their website and user needs (Google Analytics, 2015). The Society divided users into three groups: info seekers, event participants, and donors. The society then created a rubric, utilizing tools provided by Google Analytics, to “monitor the overall health of the site for each user segment” (Id.). The American Cancer Society benefitted in many ways from this. One example is how they were able to use the information collected by Google Analytics to drive traffic from [www.cancer.org](http://www.cancer.org) to the Making Strides website during Breast Cancer Awareness Month, resulting in a 5.4% increase in donations.

Overall, it is understood that in order to develop a successful platform on the internet, it is important for an organization to understand both its own goals, as well as the needs of their constituents. It follows that when designing a website, much time and effort must be placed on the initial planning process, with focused research on fulfilling the needs of various stakeholders involved.

### **3. Methodology**

This project is intended to help the Emergency Services Foundation (ESF) increase interaction with stakeholders across web platforms by researching successful e-communication strategies and industry best practices, implementing these design standards onto an updated ESF website, and providing an interactive guide promoting long term success tailored specifically to the ESF. Our objectives of the project are to:

1. Research best practices and strategies for maintaining an effective online presence.
2. Assess the needs of the ESF and its key constituency groups.
3. Create the ESF website.
4. Compose a comprehensive guide for managing the ESF's website and social media accounts, including a collection of media to serve as website and social media content with sustained maintenance in mind.

The project was completed over a 7-week term beginning on March 14, 2017 and ending on May 3, 2017. The timeline for these objectives can be found in Appendix B.

#### **3.1 Research Strategies for Effective Website Design**

Redesigning a website and implementing social media practices for the ESF requires some background knowledge on best practices for website design, social media, and analyzing the constructs for success and the metrics indicating success. Best practices articles posted by the likes of Forbes and Business Victoria were investigated, as well as expert literature observing specific constructs of web design and social media. These proved to be valuable resources in acquiring the needed marketing and design background associated with this project. Further information on this subject was collected through structured interviews with web content managers of the ESF's member organizations.

When researching web design strategies, particular attention was paid to methods of increasing web presence for nonprofit organizations. An effort was made to look for metrics particularly useful to nonprofits such as web donations. Preliminary interviews with leaders in the ESF allowed us to find out what specific parts of the website needed to be improved upon to better fit the goals of the organization. This research was done partially through the use of scholarly articles. However, because of the time it takes for a scholarly article to be published, a majority of up-to-date resources on these metrics are websites. Similarly, website security is a continually evolving field and, as a result, dated articles often prove to be less useful than up to date sites dedicated to the protection of web pages.

#### **3.2 Assess Organization & Stakeholder Needs**

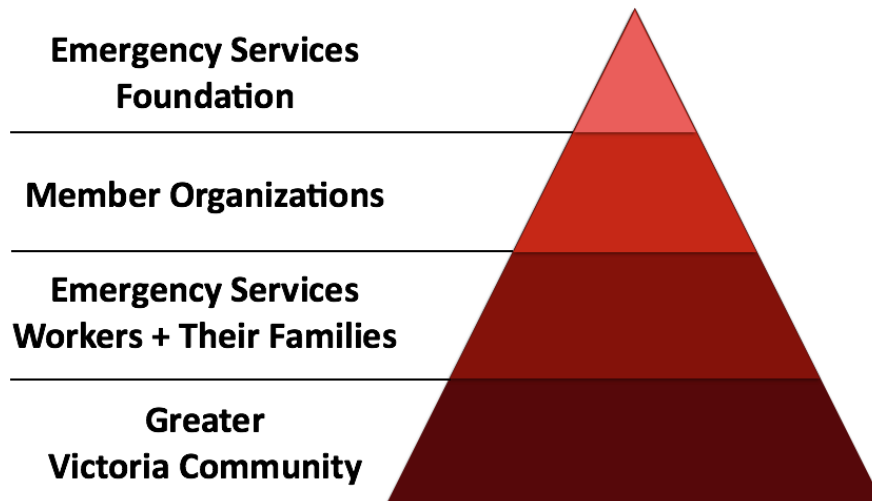
The needs and goals for the organization and its constituents are often similar, but not necessarily the same. The organization must simultaneously carry out its mission and attract

members and donors, affecting how the organization provides services. The constituents support the mission, but may also benefit from the services provided by the organization. As a result, creating a website and social media presence for an organization involves understanding both the needs of the organization and the target audience, all of whom are outlined in Figure 12. In the case of this project, determining what the ESF, member organizations, and emergency service workers and their families seek to achieve through an interactive website and social media connection was imperative to creating a successful avenue of two-way communication. Three main questions had to be answered in order to achieve these goals:

- ❑ What are the current preferences and opinions of the ESF, member organizations, and emergency service workers towards the ESF website?
- ❑ What are the experiences and services of these emergency service workers?
- ❑ How do we develop the website to improve functionality and promote the ESF's provided services as well as increase appeal to stakeholders on a more personal level?

In preparation, we researched the needs of emergency service workers and their families. Because the needs of emergency service workers change more slowly over time than internet technology, we were able to consider with more weight scholarly articles and studies done by various organizations on this topic than on the topic of web development and design. We put an emphasis on defining the needs of workers in high stress environments as a whole, with priority on emergency workers themselves. In addition, we researched the resources available to these workers through their respective organizations as well as trauma experienced by particular groups of workers. By conducting a variety of surveys and interviews (described below), we sought to answer the above questions and offer a more viable website that offers a sense of community within the ESF family.

After conducting interviews and surveys with stakeholder groups identified in Figure 13, the data had to be analyzed. Interview responses were coded to illuminate important themes in the responses of interviewees. The results of this analysis were put into the visual representations, found in the Findings chapter of this report. Survey data was organized into pie charts and bar graphs to give a better sense of the relative proportion of responses to each question.



*Figure 13: Key stakeholder groups affected by the project.*

### 3.2.1 Assess Needs of ESF

Interviewing the various involved parties gave valuable insight about their needs and experiences. We first had to determine what the ESF seeks to achieve from a renovated website and greater implementation of social media. We held meetings with our sponsor’s liaison, ESF Executive Officer Jennifer Davis, as well as other prominent members of the ESF to better understand the viewpoint of the organization. Prior to our arrival in Melbourne, we held an informal discussion with three members of the ESF organization: Chairman Neil Bibby, Executive Officer Jennifer Davis, and Social Media Manager Stephen Luke. The purpose of this discussion was to determine the main goals of implementing updated website and social media practices. As an extension, the needs of the foundation go beyond these goals. The ESF seeks to serve emergency service workers and thus their needs apply directly to the organization.

While in Melbourne, we had an informal discussion with Chairman Neil Bibby, in order to gain insight on some of his preferences and ideas for a renovated ESF website. This included showing him initial website models to see what aspects he approved of as well as spur creative discussion and ideas. As Chairman of the ESF, Neil Bibby leads the foundation in the new direction it is taking. The new ESF website may serve to aid in propelling the ESF towards accomplishing many of the goals that Neil Bibby has set for it. By learning about the direction the ESF plans to take in the future, we were able to apply appropriate website design accommodating these newfound needs.

Upon completion of the website and our project, our final design for the ESF website will be adopted by the organization. Therefore, it was necessary that the ESF members in charge of the ESF’s web platforms, Jennifer Davis and Stephen Luke, were asked for input on design decisions. We informally interviewed Stephen Luke over Skype for his opinions on our initial website designs and on any ideas or features he believed should be included. We also asked if he has a preferred content management system (CMS): Wix or WordPress. Determining the

preferred content management system early on allowed us to put all our resources into building websites on one system rather than splitting time between the two. More work and polish could then be achieved on an ideal design that combined the best aspects of the preliminary designs. We discussed the ESF's current social media pages, the possibility for creating an Instagram account, and becoming more involved on social media by interacting with the accounts of member organizations with Stephen Luke. We also asked Jennifer Davis similar questions in regards to what is her preferred CMS, as she is responsible for regular updating and maintenance of the ESF. It was difficult for Jennifer Davis to make changes to the previous website, so the new site needed to be easily updatable.

It was necessary to gain more insight into the ESF's evolving mission and changing goals in order to ensure that the website will be a useful tool in achieving the Foundation's new pursuits. It was also imperative to gain the opinions of the members involved in the ESF's web platforms in order to ensure the website will be easily maintainable for them. Creating an updated website is futile if appropriate measures are not taken to ensure maintenance for long-term success.

### **3.2.2 Assess Needs of Member Organizations**

During the preparation term we planned to reach out to the heads and web management personnel of the member organizations through the interpersonal network already established by the ESF. We planned to conduct interviews with one to two officers within each organization focusing on how the member organizations interact with the ESF on a business and organization-to-organization level. The following organizations were to participate in this study: County Fire Authority (CFA), Ambulance Victoria (AV), Metropolitan Fire Brigade (MFB), State Emergency Service (VICSES), Emergency Management Victoria (EMV), Victoria Police, and DELWP. However, it soon became apparent that this strategy would not be feasible or even necessary due to limited resources. As we spoke with Jennifer Davis about how the ESF interacts with stakeholders, it became apparent that there was less of a distinction between member organizations as entire entities and individual workers in those organizations than we had expected. As a result, our methods for assessing the needs of member organization became more focused on individuals within each member organization. By interviewing multiple workers from various emergency service providers, we were able to form an understanding of the needs of the workers in each organization. Assessing the needs of emergency service workers served as a means to assess the needs of the organizations.

### **3.2.3 Assess Needs of Emergency Service Workers**

In order to optimize website development and social media usage, it is important that these services are tailored to fulfill the needs of public safety administrators and first responders. Therefore, the input and opinions of emergency services workers is a main point of research for this project. Obtaining this input elevated the project from a basic website re-design to a project



that truly impacts a community. By actively researching the perspective of the primary website visitors, we helped the ESF to increase stakeholder interaction and engagement and form an online community. In order to obtain a broad base of opinions on the ESF website representative of emergency service workers as a whole, we decided to distribute online surveys to as many individuals as possible. These surveys included questions asking participants to rate how well the current ESF website fulfills some of the important web design constructs described in Table 1, such as navigability, content relevance, and readability and asks which pages they find the most and least useful. A copy of the consent introduction and a list of survey questions are attached in Appendices C and D, respectively.

In addition to collecting data on opinions of the ESF's website and internet usage, the survey asked respondents if they would be willing to participate in a face-to-face or phone interview or if they would be willing to participate in further surveys. Follow up interviews consisted of topics geared toward discussion on their experiences in emergency services and their relationships with the ESF. The follow up surveys included various website models and sought opinions on various aspects of these models. This allowed for an iterative, feedback-based design process.

We were able to complete this portion of the project using a contact list of 186 individuals who had had prior involvement with the ESF provided to us by Jennifer Davis. This list consisted of a wide range of emergency service workers involved in the various member organizations of the ESF, such as the MFB, CFA, Ambulance Victoria, and Victoria Police. These individuals represent the primary stakeholders of the ESF and benefit from the services the foundation provides. The survey was distributed to the 157 individuals whose email addresses were included in the original contact list.

In the subsequent interviews, we asked 10 participants questions to help us gain further insight into the experiences of emergency service workers. Details of the responses we received are included in Chapter 4: Findings. The interview responses helped us better appeal to emergency service workers and provided insight on how the ESF should present itself online as a benevolent organization for emergency service workers, while also serving as website content for ESF stakeholders.

We also contacted members of the ESF's associated agencies who were involved in media and website management. Since many of these organizations have appealing, up-to-date websites, we believed that those in charge of their media would have particularly insightful thoughts on the ESF website. We conducted face-to-face/phone interviews with these workers asking interviewees to offer expert opinions on the ESF website, how the ESF website could be improved, and about website design in general. They also provided valuable content to add to the ESF's website, such as operational photos that would make the ESF website more eye-catching.

### 3.2.4 Assessing the Opinions of the General Public regarding the ESF's Website

The general public is a minor constituency in the case of this study. However, it is still important to understand how they view the ESF and its various web platforms. Since the ESF collects donations, it is pertinent to ensure that the website appeals to and attracts a variety of people and not simply members of the emergency services community. Rather than perform a study including the general public, we simply sought to design an overall pleasing website that paints the ESF mission in a sympathetic manner that would garner public interest.

### 3.2.5 Preliminary Assessment of the ESF Website

An important preliminary observation was an assessment of the former website. Assessing the former site elucidated the services and resources provided by the ESF and formed the basis for our initial critique of its design. A rudimentary overview of the ESF website also provided information in regards to organization and stakeholder needs and indicated the current state of the website relative to its peers, i.e. member organizations and similar nonprofits. Prior to beginning the project in Melbourne, we performed a preliminary SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of the website (Figure 14). Reviewing the previous site provided a useful source of information pertinent to creating a more interactive experience and deeper connection between the ESF and the community it serves. The current social media manager provided past web-related metrics for the ESF's social media outlets. Using this information we sought to observe changes in web traffic based on new social media practices and website design by comparing the past web analytics data to newer results.

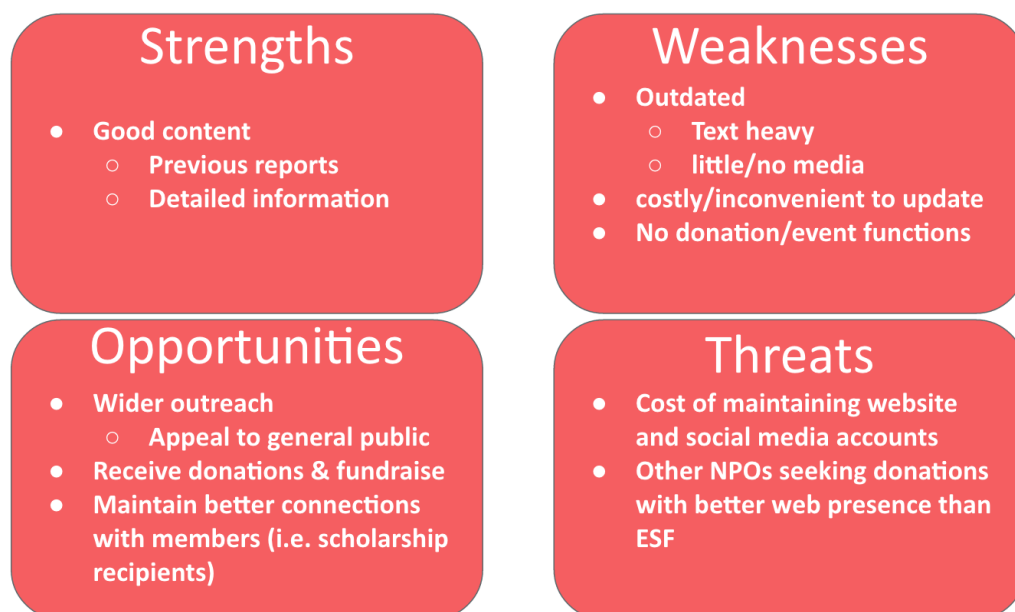


Figure 14: Preliminary SWOT Analysis of the ESF's current website.

### **3.3 Modeling & Design of Website**

We began our project in Melbourne by designing several unique website templates for the ESF. Utilization of the established content management systems WordPress and Wix allowed for quick and simple development of these website designs. Each template contained specific elements, such as social media links, known to correlate with online marketing success. After presenting our seven initial designs to Neil Bibby, Jennifer Davis, and Stephen Luke, and receiving their feedback, we narrowed our templates to three more in-depth designs. We combined the best aspects of our various designs, implemented new ideas from ESF officers, and eliminated designs and design decisions that were less preferable to the ESF and its stakeholders. At each iteration, we presented our designs to the three ESF members mentioned above to obtain additional feedback on our designs.

This objective spanned seven weeks of the project term, as it was our main deliverable and our final design would become the official website of the ESF. This option saves the ESF much time and money that would otherwise be spent working with a professional website designer. By allowing us to design the ESF's official website, the organization would pay no initial cost to a professional designer for building the website, and the annual cost of the website would be much less than former maintenance pricing. A typical content management system with the most premium service costs around \$25-\$30 U.S. (\$33-\$39 AU) a month, translating to \$300-\$360 U.S.(\$396-\$468 AU) a year, whereas currently, the ESF spends roughly \$1,155 U.S. (\$1,500 AU) a year (Note: these numbers are rough approximations and do not represent exact costs). The transition to a content management system could save the ESF in excess of \$800 U.S. (over \$1,000 AU) annually, allowing for reallocation of funds to other areas.

### **3.4 Compose Deliverables Package**

For this project, we have four core deliverables to provide the ESF. We (1) synthesized our research into guidelines for the maintenance of successful website design and social media utilization, (2) developed content to increase the interactivity of both the ESF's social media and website, (3) designed the new official site of the ESF, and (4) develop a means of fundraising through crowdfunding.

#### **3.4.1 Provide Website Design and Social Media Guidelines for the ESF**

In order to provide meaningful guidelines in website design and social media, industry best practices were researched. Sources the likes of Forbes and Business Victoria were heavily utilized. We focused on three main areas of research: best practices for website design and social media posting, methods of analyzing website and social media effectiveness, and website security. Best practices for website design and social media posting were researched providing insight on notable features to include on the new ESF website and for new postings on ESF social media. In order to determine the effectiveness of these new implementations, another area

of research studied were website and social media metrics often measured in industry that indicate website success. Lastly, the area of website security and the necessity of it was investigated due to the ESF's interest in implementing a more robust fundraising feature on its new website. This information was organized into an informative, easily understandable guide.

### **3.4.2 Create Website and Social Media Content in the Form of Video Interviews**

Video interviews are a valuable source of media. Embedded videos and video social media posts are some of the most widespread and useful sources of information found on the Internet. As such, collecting a wide variety of videos on the experiences of various people involved with the ESF not only provided useful insight for us, but also helped create a valuable library of information that can be posted on the various web platforms of the ESF to help spread its message and convey a greater sense of community. The main form of media collected was video interviews and testimonials from emergency service workers about experiences they have had in the line of duty and with the ESF. Many videos also highlight experiences that scholarship award recipients have had with the ESF and how enriching their research experiences were under the ESF Scholarship Scheme and how such research has improved the safety and standards of emergency services work. The videos may be saved and shared later on the ESF's website as well as on social media platforms such as Twitter, Facebook, and Instagram.

#### **3.4.2.1 Video Recording and Editing**

We contacted ESF scholarship recipients requesting a video testimonial detailing their positive experiences from their research under the ESF Scholarship Scheme. The purpose of these video interviews would be to acquire testimonials and captivating content that could be found on the ESF's websites and social media accounts. These videos can be posted by the ESF to increase the interactivity and engagement on their website and social media platforms. We created rough storyboards and performed video planning for general cases to be applied to the various interviews. Of the 21 scholarship awardees from recent years contacted, five were willing to commit to a video testimonial.

### **3.4.3 Design and Implement Updated ESF Website**

The following content management systems (CMS) were utilized in creating model website designs, Wix and WordPress. Based on feedback from ESF media managers, a preferred CMS was determined. Designs were made utilizing assets and information found on the current ESF website. Best practices in website design were implemented. Most of the information was ported over, but in a more organized and intuitive manner, where menus were utilized more heavily, with each menu containing more detailed sub menus and pages. Content to be collected consisted of images provided by the ESF, as well as images provided through media contacts from the member organizations. Additional content was collected in the video interviews mentioned previously.

The design process consisted of a rough markup on paper prior, which consisted of listing the ideal features and a rough markup of menu, icon, and media locations. The design draft also included a list of ideal media to include. From there, these drafts were created within the desired CMS. Once these designs were completed, they were critiqued by the interested ESF members mentioned above. Based on this feedback, additions and edits were made, resulting in more refined designs that would then undergo more critiquing by the same members. This was an iterative process that depended on a feedback loop between the development team and the ESF stakeholders interested in offering input on the website.

## 4. Findings

The purpose of this chapter is to review the findings we gathered from the methods used in the previous chapter. This includes answering the three main questions presented at the in Chapter 3:

- What are the current preferences and opinions of the ESF, member organizations, and emergency service workers towards the ESF website?
- What are the experiences and services of these emergency service workers?
- How do we develop the website to improve functionality and promote the ESF's provided services as well as increase appeal to stakeholders on a more personal level?

In addition, this chapter details other relevant findings, including additional insights provided by interviewees and ESF personnel.

### 4.1 Stakeholder Website Interactions & Opinions

Initial surveying allowed us to quantify the browsing habits and opinions of stakeholders. 125 surveys were distributed to individuals involved with the ESF, such as scholarship recipients, conference managers, media managers of other organizations, and board members. We received 37 complete responses and 10 incomplete responses. All responses were utilized regardless if the participant finished the survey. We felt that any response for a question should be included because it only further contributed to illustrating a general stakeholder trend, and each question response is not directly dependent on a previous question. Overall, the response rate to our survey was about 38%. General conclusions can be made about the stakeholder population, however, given the response rate, these conclusions are not necessarily applicable to all stakeholders and it would be false to suggest that these results are perfectly representative of all stakeholders. Given the purpose of this study, the results received were sufficient in aiding the development of the new website and new marketing practices for the ESF.

Initial survey questions aimed to understand user interaction with the former ESF website. Respondents were asked questions on how often they visited the website, how they would rate the site on appearance, navigability, and information, and how they would rate the various pages on the site. In terms of the frequency of visits to the ESF site, respondents were given the options of more than once a day, once a day, once a week, once a month, once a year, and less than once a year. Determining how frequently the stakeholder population visits the site offers a general indication of how engaging a website is, how useful the services are, and, more importantly, website relevance for stakeholders. All respondents reported that they visited the former ESF website once a month or less, with 35.29% visiting once a month, 44.12% visiting once a year, and 20.59% visiting less than once a year. These results illustrate that the former ESF website generated little web traffic. With the organizational goal of reaching a wider audience and establishing improved interactions with stakeholders, the ESF website was not generating sufficient traffic.

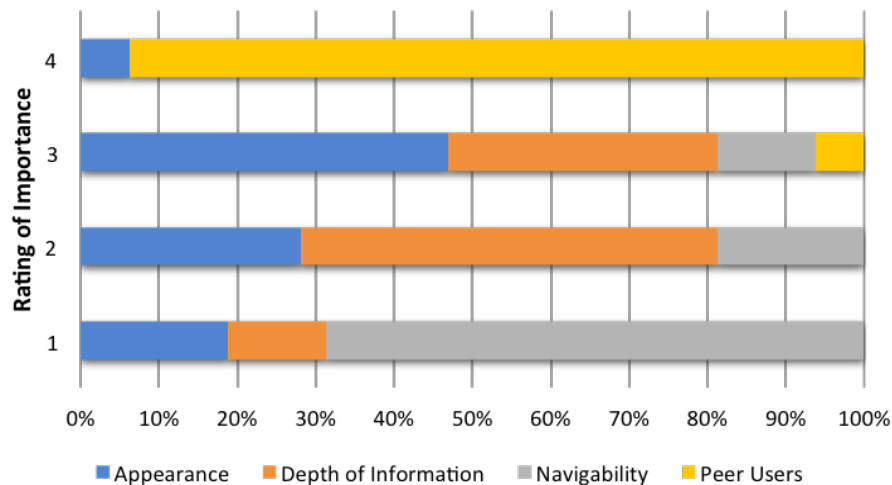
Respondents rated the former website based on constructs studied from previous reports. Three main constructs were utilized in this study: appearance, navigability, and content/information depth. The definitions of each construct were provided within the question. Each construct was scored on a 5 point scale with options denoted as “Unacceptable,” “Poor,” “Satisfactory,” “Good,” and “Excellent.” From the survey results, the general stakeholder population rated each of the three constructs near a three. Appearance was rated as “Poor” by 41.18% of respondents, “Satisfactory” by 47.06%, “Good” by 11.76%. Very few thought the website looked “Good”, and no one rated the site appearance as “Excellent.” The amount of responses for “Poor” and “Satisfactory” indicate the need for an update in the website’s appearance. In terms of Navigability, responses given were mostly “Satisfactory,” with 61.76% rating website navigation as “Satisfactory.” 17.65% believed navigation was “Poor,” and 20.59% thought Navigability was “Good.” Again, a majority believed that the Navigability of the site was “Satisfactory” and a large portion believed it was “Poor,” demonstrating a need in improvement in the area, which can be linked to interactability as well. Lastly, according to the participants, the website offered mostly “Satisfactory” content and a large degree of “Poor” content which refers to both how informative the site is and whether it uses videos and text to convey information effectively. 55.88% deemed the content “Satisfactory,” 23.53% rated it as “Poor,” and 20.59% scored the website content as “Good.” As a result, improvement needed to be made in regards to content and information as well. Overall, all three constructs were rated at either average or below average ratings, illustrating the need for the new website to improve upon these areas. Figure 15 displays the ratings received for the former website.



*Figure 15: Rating of various aspects of the former ESF website.*

In terms of the accuracy of results, this clustering of scores suggests that perhaps the scale should have been on a 7 point scale to give respondents more freedom rating the website. This might allow for a scores that are more discernable and representative of the opinions of stakeholders, as a 5 point scale might appear limiting to respondents who were hesitant to rate the ESF website at either end of the scale. It should be noted that no respondents gave any category an “Unacceptable” or “Excellent” rating.

The next survey question illustrates how stakeholders weigh the importance of each construct in regards to the stakeholders. Among these constructs, users generally agreed that Navigability is most important in a website, followed by Depth of Information, Appearance, and then Peer Users. Peer Users is a construct describing whether a user’s decision to visit a website is impacted by similar individuals visiting the website. This information proved useful in distributing website development resources in high-priority areas. Since Navigability and Appearance were given high importance, efforts were made to improve these areas first. Minor edits were made to the provided information from the ESF, and additions were also made to include more information on Scholarship Awardees. Peer User data illustrated that it was of little importance, and, as a result, was not observed when creating the new website. Figure 16 illustrates the importance of these constructs.

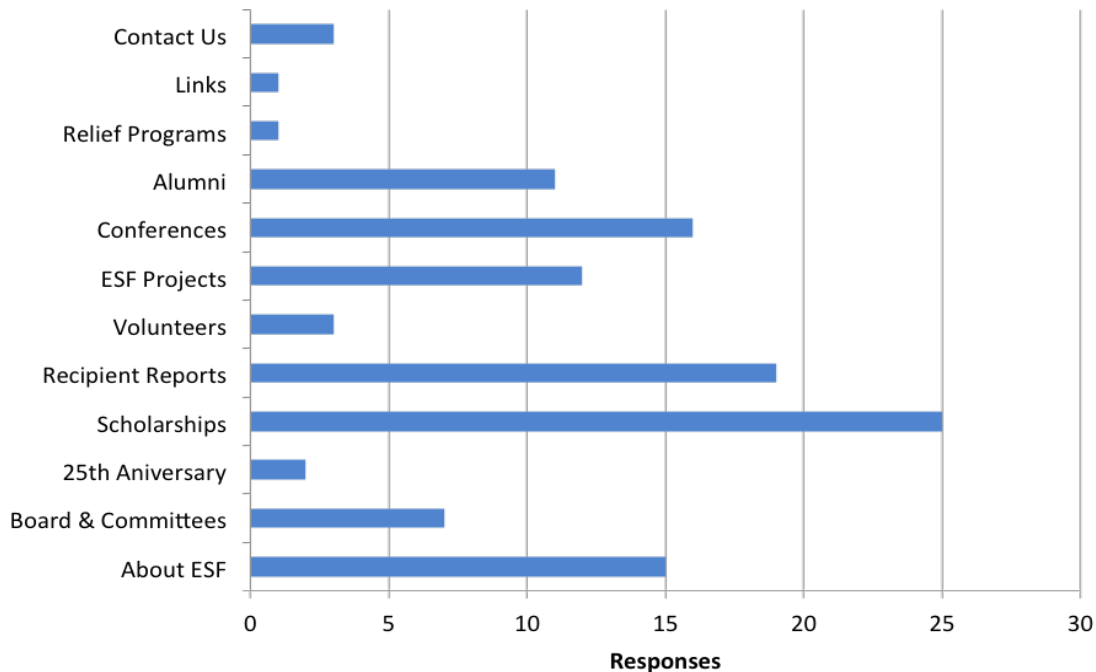


**Figure 16:** Rating of importance for various constructs.

Figure 17 below shows which pages were most visited by users. Respondents were given the option of choosing their three most visited pages. The top three were Scholarships, Recipient Reports, and About ESF, followed by Conferences. These pages also ranked among the most helpful or useful of the pages on the ESF website. A similar correlation also existed with the least visited and least helpful pages. Links, Relief Programs, 25th Anniversary, and Contact Us were the least visited, while 25th Anniversary, Links, Boards & Committees, and Relief



Programs were ranked the least useful. These findings are important because they helped us determine which pages to emphasize and which to exclude from our website designs.



*Figure 17: Pages frequently visited by stakeholders.*

Participants were then asked what they liked and disliked about the pages. The main themes drawn from these responses were how stakeholders believed the pages were informative and that the scholarship page provided useful research information on scholarship opportunities. In terms of what the stakeholders disliked about the pages, some made remarks about appearance. However, the main detractor was the dated content on the website. Several respondents noted the lack of current Annual Reports, as well as out of date information on recent Scholarship Awardees. When asked to provide additional comments on the website in general, many respondents stated that the website is outdated and in need of an update towards a more contemporary look. One respondent felt that the website should offer, “more about the full breadth of what ESF does and has on offer to inspire [a] website visitor to engage with the site,” suggesting that expanding on this information would raise both the profile of the website and the Foundation. On the same note, another respondent felt that the website should be a media “promoting and highlighting the good work done by the ESF.” Others made suggestions on interactivity and visual appeal. More specifically, one participant recommended the implementation of a new, easy to use website with appropriate images. They believed doing so, “would really engage with younger and older EMS workers.” Another respondent advocated for the inclusion of a latest news page. A majority also recommended improving upon the scholarships pages by providing more information through the use of videos from Scholarship Awardees. All of these suggestions are in line with the best practices of the industry and we sought to implement these features within the new website.

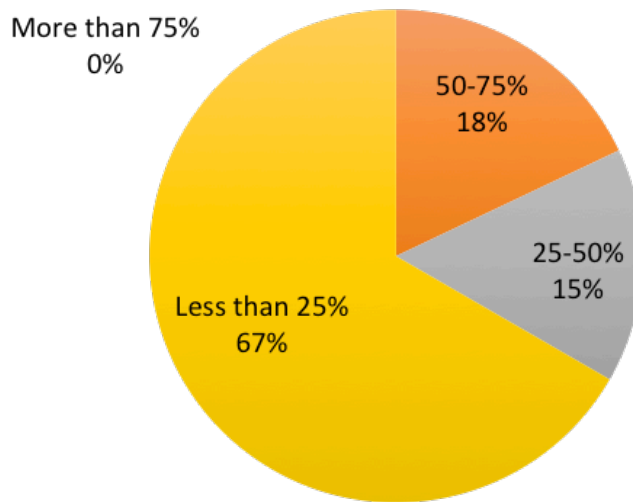
## 4.2 Stakeholder Web Browsing & Social Media Habits

We investigated the web browsing habits of stakeholders in order to gain a better understanding of how the ESF's stakeholders utilize the Internet and social media. Determining this information is necessary in creating a website that caters to the stakeholder population and also in evaluating the feasibility of implementing more engaging social media practices.

We compiled information on how much time stakeholders spend on the Internet. We found that there was an even spread across the spectrum from users spending more than 20 hours per week to users spending less than 5 hours a week. Around 40% of respondents mentioned they spent more than 20 hours per week on the Internet, while around 26% mentioned spending less than 5 hours per week. In between those two values, 10.53% spend approximately 15-20 hours per week on the Internet, 7.89% spend 10-15 hours per week, and 15.79% spend roughly 5-10 hours per week. The stakeholders are split roughly in thirds, with groups in each of the extremes and the average, illustrating that the group consists of an evenly distributed variety of internet users.

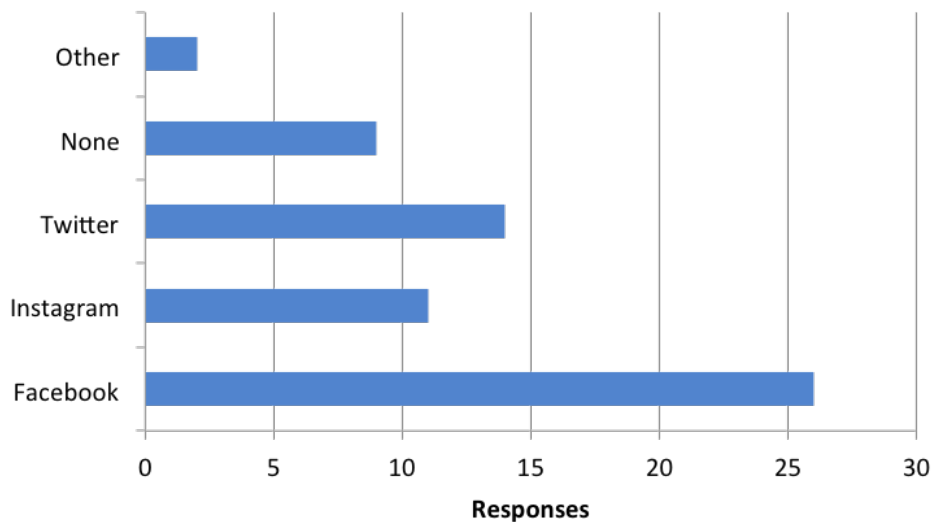
Another question delved into which devices stakeholder use to access the Internet. Roughly half the respondents do so most often via computer or laptop. The next most common device used to access the Internet was mobile phones, with 28.21% of respondents reporting they used this method. Lastly, roughly 23% of participants routinely access the Internet on a tablet device, such as an iPad or Android equivalent. These numbers meant that we had to give some consideration to how the website would appear on all types of devices. This proved to be a minor concern, however, as WordPress includes a feature to preview a website in the format that it would be shown on computer, tablet, and mobile.

Next we gauged stakeholder involvement on social media. A majority of respondents, 66.67% of the cohort, spend less than 25% of their time on social media when using the Internet. Respondents who spent 25-50% of their internet time on social media consisted of 15.38% of the study group, and 17.95% spent more than 75% of their time online using social media. Figure 18 illustrates social media usage within the surveyed stakeholder group.



*Figure 18: Percent of time using the internet dedicated to social media*

In regards to which social media platforms stakeholders use, it was found that most, 66.67%, use Facebook. Twitter and Instagram were the next two most commonly used by stakeholders, at 35.90% and 28.21% respectively. Figure 19 illustrates the popularity of social media platforms for stakeholders. Roughly a quarter of the group stated no involvement in social media, and two mentioned they used other means.



*Figure 19: Most used social media websites.*

The ESF seeks to improve communication with their stakeholders, and as such it was pertinent to gain input on the preferred methods of communication between the ESF and their constituency. Given the options of email, social media, mail (post), a newsletter, other, and none,

approximately 75% of stakeholders preferred updates from the ESF through email. 20.51% preferred updates via ESF social media accounts, one individual preferred a newsletter, and one individual preferred not to be contacted at all.

These findings allowed us to determine which forms of social media and methods of communication would be most effective in reaching out to the emergency services community interested in the ESF. For the purpose of online marketing, it is often necessary to maintain frequent contact with stakeholders. The results we collected give an idea of how involved members want to be with the ESF in terms of frequency of communication. It is important for an organization to achieve a balance when reaching out to constituents, as they want to maintain regular contact without being overbearing. From these results, it is evident that the Internet is commonly used by a majority of stakeholders, and that social media is used by a significant amount of the polled group. Facebook is the most common social media platform, but Twitter and Instagram also see solid usage indicating more action should be taken on both and that the creation of an Instagram account for the ESF may prove useful.

One of the many new goals of the ESF is to attract younger emergency service workers. Many of these younger workers may have greater involvement in social media, and Instagram in particular. In addition, many of the member organizations currently utilize Instagram to great effect, and the ESF may benefit from joining such a service. By increasing involvement on social media, the ESF may be able to appeal to the younger generation of emergency service workers and reach out to a larger group of people. Overall, it seems that the ESF could improve stakeholder interactions by implementing more frequent communication through social media outlets.

### **4.3 Interview Responses**

Across the interviews we conducted, several themes appeared. While these themes were important to note as an overall representation of the general opinion of users on the ESF website, we felt that it was also necessary to highlight some of the unique responses we received in regards to the interviewees' opinions and experiences with the ESF and emergency services.

#### **4.3.1 Fundraising Capabilities**

One of the themes we found among our interviews was that the ESF should have an *easier way to accept donations*. This was something that ESF Chairman Neil Bibby had also asked for, proving that this was important to both the ESF and its stakeholders. A couple of interviewees mentioned that whenever there is a large natural disaster, donations to disaster relief increase tremendously, but without a focal point. Ex-Victoria SES State Director and ESF Life Member Rhys Maggs emphasized this idea that, "the reality in Australia is that every time there's a major disaster, there's an outpouring of public funds." It was recommended that the ESF could act as a source for collection with a donations page that could be activated upon the

occurrence of a disaster. This temporarily activated page would describe the effects of the disaster and specifically how donations would help.

Implementation of this emergency donations page took a slightly different form than suggested. The general donation page is the default page on the website. It describes where donations go in the event of a major disaster and how donations help emergency service workers harmed in the line of duty. The emergency donation page is a page that can be activated by an ESF website manager in the event of a large-scale disaster that would result in the outpouring of donations. Activation would be completed simply editing the general donations page to specifically describe a recent disaster. This is a simple solution that would not require the ESF to change the links to the donate page everywhere else on the website. Both instances of the page include descriptions of how donations help, indicate that the ESF is a charitable organization and that donations are tax deductible, and include a link to PayPal to easily allow for donations. In addition to a donations page, the Foundation also sought to include a store feature allowing for the sale of merchandise, such as the Fire Services Commemorative Bear, Ashley. Having such a feature will allow the organization to offer similar promotions in the future and is an additional source of revenue.

The importance of the Foundation's tax-deductible status for a charitable organization was heavily stressed. ***Allowing for tax-deductible donations is a huge appeal to Australian donors*** according to interviewees. According to ESF Conference and Committee Director and Blue Ribbon Foundation CEO Neil Soullier, Ex-ESF board member and retired Victoria Police Director of Administration Tony Allen emphasized the importance for a receipt to be sent to donors, as this is how they are able to take advantage of the tax deductible donations. It was also recommended by many that ***the website must better emphasize why the Foundation is a worthy cause in order to attract more donations from the general public***. Illustrating that ESF relief packages can go beyond medical bills and cover more areas than workers compensation, such as helping send the child of an injured emergency service worker to school, would help fulfill this goal. When describing the two arms of the ESF's mission, MFB Leading Fire Fighter and Multicultural Liaison Officer Stephen O'Malley, illustrates the that though "the premise of the foundation is to provide scholarships... [there is] also the philanthropic family assist sort of things." ESF Conference Committee Director and Blue Ribbon Foundation CEO Neil Soullier recommended incorporating, "... imagery that's got [emergency service workers] interacting with members of the community," on the donation page to help communicate the worthy cause of the Foundation. He also advocated for the inclusion of heroic stories of emergency service workers in the field to help the ESF garner more attention.

#### **4.3.2 Increased Interaction**

Interviews with various ex-members of the ESF and executive officer Jennifer Davis revealed that one of the most important outcomes of ***the ESF's conferences is that it builds camaraderie between workers in the various emergency services agencies***. In a similar vein,

Neil Bibby and Stephen Luke both requested that the ESF website allow for community involvement. They wanted a new method for emergency service workers to connect with each other and share their experiences. This was important to consider in the design of the new website and choosing which features and plugins to include.

Coinciding with this forum, Stephen Luke and several survey participants stressed the ***need to better represent the achievements of scholarship recipients and to make the scholarship application process easier***. They advocated that the scholarship page should be more visual and interactive, including photos and briefs of each recipient's project experience. The idea of expressing the research summary through a short video interview was also brought up. This supported our initial methods to record video testimonials to serve as media content. Not only will these changes provide a better illustration of the research done by scholarship awardees, it will also serve as an aid for emergency service workers applying for the scholarship. According to MFB Leading Fire Fighter and Multicultural Liaison Officer Stephen O'Malley, improving the access to past research reports will benefit scholarship applications through presenting model research topics and reports. EMV Senior Officer of Digital Media Ben Edwards further supported this idea by recommending the addition of a website page with a comprehensive guide on how to apply to the scholarships. Stephen Luke also broached the idea of having the option to apply for the scholarships online through the website. Doing so may make the application process easier and improve application review process by compiling the information. Lastly, Stephen Luke recommended creating a link between individuals found on the website, such as scholarship recipients and board members with their individual LinkedIn accounts. Doing so could provide a sense of credibility to the website as well as to the reports.

The annual ESF conferences, ***the Emergency Management Conference and the Volunteer Leaders Forum, are the main sources of interaction between the ESF and their stakeholders***. As such, any ways to increase the attendance of these events improves interaction amongst the emergency services community. As suggested by Stephen Luke, advertising of these conferences on the website should be improved. Another feature to possibly incorporate on the website would be a conference registration page. For prior events, a link found on the ESF website would lead to another website on which to register. Bringing this feature to the ESF website may make registering easier and as a result attract more participants.

From our background research we learned of the importance of two-way communication in the current online marketing environment. Ben Edwards works on EMV social media and verified ***the necessity of two-way communication in online marketing, for nonprofit organizations and more specifically organizations involved in emergency services***. Various interviewees expressed the need for the organization to achieve better social media methods, a method for improving two-way communication. The ESF had accounts on Facebook, Twitter, YouTube, and LinkedIn. Ben Edwards believes that the ESF is underutilizing Instagram, which according to him is popular in Australia, especially amongst the younger generation. Creating an Instagram account may be a start for the ESF to better reach the younger generation of

emergency services. Currently, the ESF website does not advertise the Foundation’s social media, whether it be in the form of links or news feeds. Stephen Luke requested the addition of Twitter on a news/media page at some capacity. He believed that this would allow for individuals to become acquainted to the Twitter account who otherwise would not know of it, and at the same time provide any information posted on Twitter to a user who does not use the service.

Both Stephen Luke and Neil Bibby suggested the addition of a blog or news page that would serve as a “running feed,” where the ESF could post updates that they want to share, but would be too long to post on social media. This blog could also provide the opportunity for scholarship recipients to post updates on their current scholarship trip, research, and their careers. Another suggested means of promoting interaction with stakeholders was through the compilation of an email list for an ESF newsletter. Neil Bibby tasked us with adding a function on the ESF website to prompt users for their email address. This could be achieved through a pop up on the website that notifies the user of the ESF newsletter and the ability to receive updates on the organization by including an email in the provided field.

#### **4.3.3 Search Engine Optimization and Web Analytics**

During the preparation term we realized *the utility of search engine optimization (SEO) and web analytics when approaching website design*. This idea and the need for the ESF to incorporate these practices into their media approach was also frequently mentioned by multiple stakeholders. Many interviewees such as Michael Campbell and Tony Allen, shared the sentiment that, though they had no knowledge on how to implement SEO, the practice would be beneficial for the organization and should be something we look to achieve. Neil Soullier and Ben Edwards both advocated for improved cross-linking between the ESF website and the websites of member organization as well as incorporating links to news stories from member organization pages to help achieve SEO. Neil Bibby suggested “feeding into other websites” by promoting member organization events such as charity 5k running fundraisers, in order to provide both content and SEO to the ESF website. Rhys Maggs mentioned the ESF should have the goal of being on the top of the Google search list in Australia when people search “emergency,” and that linking member agencies to the ESF website would benefit both the ESF and the agencies in a variety of ways. Additionally, Ben Edwards also offered to tweet news regarding the ESF from the EMV Twitter account, helping to increase awareness of the ESF.

Neil Soullier and Ben Edwards advocated the use of analytics as a tool in determining website success. Neil Soullier plans on implementing analytics for the Blue Ribbon Foundation website and vouched for the benefits of tracking key areas of websites in order to help generate more web traction and resulting donations. Ben Edwards offered to help the ESF with implementing Google Analytics to track things such as what people are searching, top content pages, visitor demographics, and total traffic.

#### 4.3.4 New Direction for the Foundation

Other than suggestions and input in regards to the website, interviewees also had many opinions towards the direction in which the ESF should be moving towards. These range from visual appeal to possible shifts in the Foundation's emphasis. One of the main suggestions is ***improving overall visual appeal of the ESF in terms of its website and resources***. This includes the various logos and images the ESF utilizes to advertise itself and its services, such as the scholarship and the annual events. Some interviewees recommended possibly changing the ESF logo to something more visually appealing, possibly through a local service, such as 99 Designs, that can be contracted to create new logos. Others simply suggested creating higher resolution versions of the current logos in order to have better assets to utilize on social media and other platforms, as the current logos transfer poorly onto other platforms. In contrast, others believed that the logo was fine. They believed that it illustrates the various branches of emergency services well and that the current logo has some history behind it because it has remained the same since the organization was founded.

Two opinions were voiced about policy. One was that ***the ESF might benefit from becoming a national organization***. The other is that ***the ESF should emphasize the Scholarship Scheme, the goal of diminishing danger, and the theme of Prevention and Preparation more***. During the project term, the state of Queensland was heavily impacted by Cyclone Debbie as a result, the idea for the ESF to possibly expand to the national level in order to provide aid to emergency service workers impacted by disasters outside Victoria was broached. Rhys Maggs believed that the ESF going nationwide would be a good idea, possibly achievable through setting up dozens of small funds and committees throughout Australia. Stephen O'Malley believed this was an interesting idea, but he did not believe the organization currently has the strength and resources to branch out nationally. Neil Bibby would like for the organization to be more involved nationwide; however, he does not believe this will occur in the foreseeable future. Rather, he believes the organization should remain focused on widening their outreach in Victoria and advocate less so on the disaster relief aspect and more on scholarship and research that will improve the quality and safety of emergency service work. By improving research in this field, hopefully there will be less of a need for disaster relief funds with emergency service workers being safer and more effective on duty.



## **5. Deliverables and Accomplishments**

Over the course of this project, we were able to provide several deliverables to the Emergency Services Foundation. This chapter details these deliverables and also provides information on other notable accomplishments of the project team.

### **5.1 Deliverables**

This project set out three deliverables that will improve the ESF's interaction and communication with their constituency through the implementation of updated online platforms and online marketing practices. The main deliverable is an updated ESF website, followed by a comprehensive website and social media guide that will illustrate how to maintain the new website and accounts, and lastly, a collection of content to post on the Foundation's various online platforms.

#### **5.1.1 The ESF Website**

Based on the previous status of the ESF website and our website-based survey results, we sought to improve the website in all three aspects we studied, appearance, content, and navigability. We implemented features that were requested by the organization, suggested by stakeholders, and that align with the current best practices in website design in order to bring the ESF website to the industry standards. At the same time, we sought to improve ESF fundraising and interaction abilities through the website to ensure that ESF continually have funds available to provide support services for emergency service workers in need. After many iterations of our ESF website designs, a final design was chosen based on feedback from various ESF stakeholders, as well as board members within the ESF.

We included three main features the ESF board members requested. The three main features were easy access fundraising, member profile creation to develop an online community of emergency service workers, and a robust scholarship awardee database. With the addition of a donation page, we fulfilled the need for easy access fundraising. This page incorporates a PayPal donation button that allows for online donations. Included on this page is a store feature that enables the sale of fundraising merchandise, like the ESF collector plush bear, Ashley. As suggested by various interviewees, we also incorporated captivating images of emergency service workers and provided a more detailed description of the aid the ESF provides in order to better illustrate the worthiness of the ESF mission.

In order to address the need for improved stakeholder interaction, we added the BuddyPress plugin to create a social space for emergency service workers in the form of a forum on the website. Here users can register for an account and join agency specific groups. Members can interact amongst each other and discuss field-related research as well as provide updates on their careers and on the community; ideally, this will help to foster the relationships built

between emergency service workers at the ESF conferences. The Wordfence plugin was added to lessen the risk of spam posts on the website, by preventing creation of bot accounts. This ensures genuine users create accounts and have access to posting abilities. WordFence also provides a means of banning specific Internet Protocol addresses, limiting access of the website in specific regions and blocking website access from regions known for spam and hacking. Likewise, the website can be enabled solely in Australia if so desired. However, if scholarship recipients are researching abroad this may not be ideal. Additionally, WordPress also has built-in admin features that allow for account bans from the forum, as well as an admin approval function for user comments. We added a “News” page containing news updates posted by an ESF website admin, as well as various social media feeds that are also advertised on the homepage. Other added features enabling improved interaction were links to ESF Facebook, Twitter, LinkedIn, and Instagram accounts, as well as a Twitter newsfeed as requested by Stephen Luke. These features improve appearance, content, and navigability. They reduce clutter by providing simple images and feeds improving appearance, whilst maintaining and adding new sources of information, and provide easy access to this information.

Tasked with creating a more robust and informational online presentation of scholarship awardees and their research, we created a comprehensive database consisting of reports, briefs, images, and videos. Based on individuals who sent us professional agency photos, short project briefs, and any images from their project experience, we created a visual interactive gallery of awardees. Older project reports and reports that we could not get a brief on were also included and organized by year. These reports included the project title, author, and a PDF link to the full report. Lastly, a video compilation of the interviews we conducted with willing scholarship recipients was created. We placed this video on the homepage in order to advertise the benefits of the scholarship experience. More emphasis was placed on the scholarship program illustrating the mission of Prevention and Preparation through emergency service based research. We sought to make scholarship information more accessible and detailed to better present the achievements of the scholarship recipients, as well as provide models and aid for scholarship applicants. Implementation of these three features fulfilled the initial project goals the ESF had set forth and improved upon the three website constructs of appearance, content, and navigability. The newly implemented website is illustrated in Figure 20 shown below.

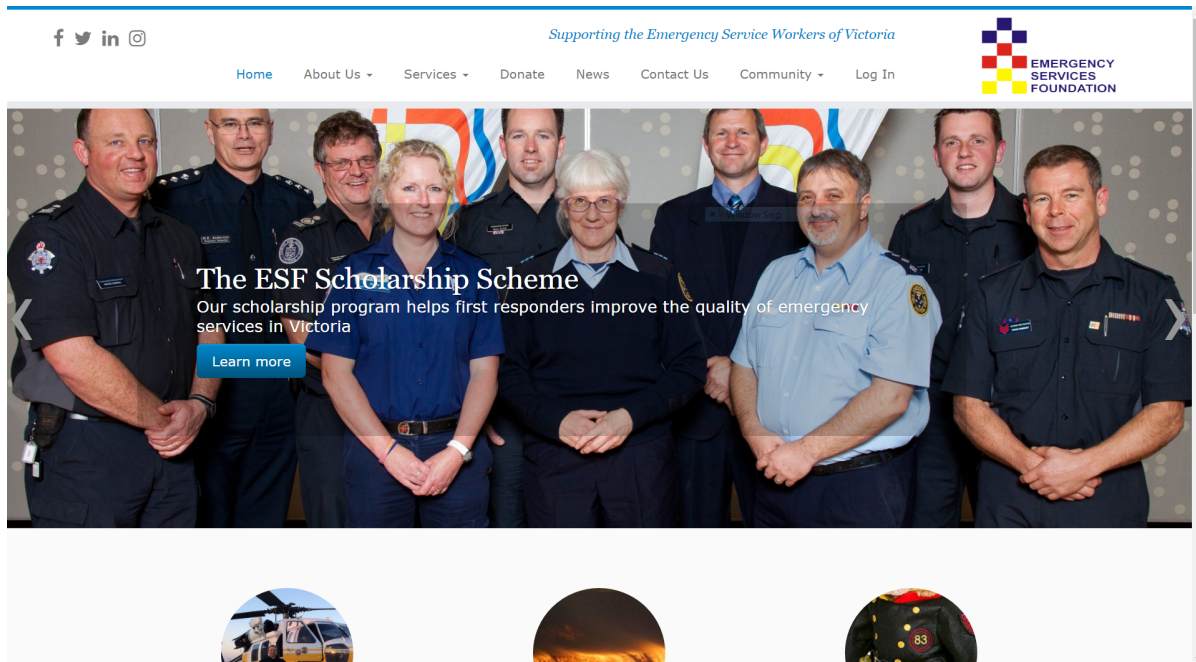


Figure 20: Homepage of the updated ESF website created using WordPress.org

Best practices and other recommended features we included were SEO practices and features improving website navigation and interaction. SEO practices were implemented by updating the links and information of various member agencies. We also reached out to the various media members inquiring about cross-linking the ESF website and their respective agency websites. Strongly worded taglines were added to the homepage and various descriptions in an effort to improve SEO. The addition of important aspects of the organization was headlined on the homepage in order to improve SEO and website navigation. These aspects include “Scholarship Applications,” “Relief Programs,” and “Scholarship Recipient Reports,” which are some of the most heavily visited resources. A frequently-asked-questions (FAQ) page was created offering information on registering for a website account, scholarships, and events. Alongside this a search feature was implemented to aid in website navigation, especially for users who know what content they seek, but are having trouble finding it. Improved navigational menus were added both to the header and footer of the webpage. These menus are illustrated in Figure 21.

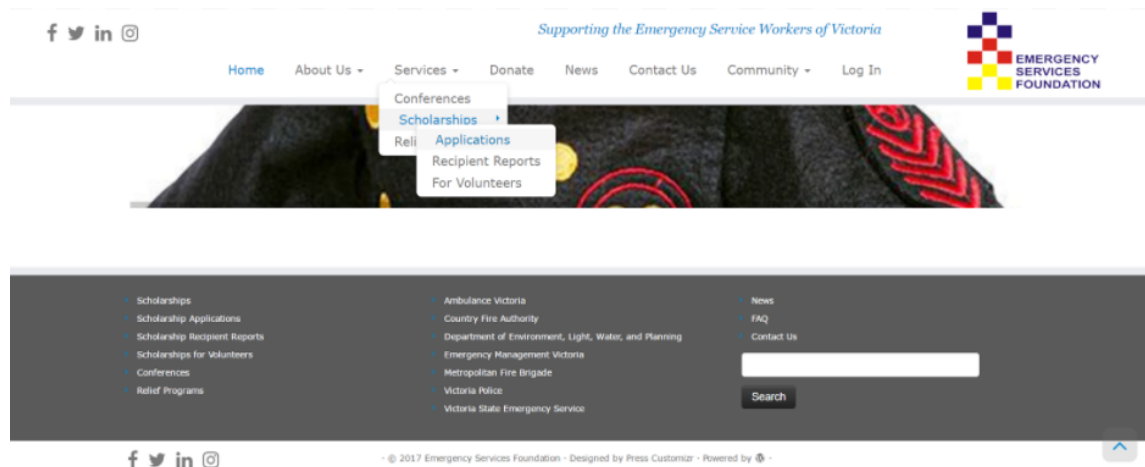


Figure 21: Header and Footer of the updated ESF site

### 5.1.2 Website and Social Media Guide

We were tasked with creating the website due to the outdated previous website, which was extremely difficult, time consuming, and costly to make any substantial changes to with the previous web developer. As a result, it was necessary to create an easily editable website and provide the necessary information so that anyone with little website knowledge can make these changes.

It was necessary to develop a guide that Jennifer Davis and Stephen Luke could easily follow because they will be the ones to regularly update the website after the project term. Also, in order to maintain an effective website and social media platforms it is necessary to make constant updates and post regularly. In order for this to happen, the platforms must be easily manageable for the two individuals, who have varying degrees of experience in website and social media maintenance. To account for this disparity in website and social media knowledge, a comprehensive guide was created.

These guidelines are provided in a well-organized and detailed manual that was delivered to the ESF and attached to this report in Appendix H. Guidelines in the package included descriptions of best practices in web design and social media, metrics for measuring effectiveness of web platforms, and website security. Additionally comprehensive instructions on how to update the created WordPress site were included with images illustrating step-by-step how to perform various actions within the CMS. The package was constructed with both the intentions of the ESF and the informational needs of a web manager in mind. We included precise information, recommendations, and an optimization strategy for the ESF to maintain an effective new website. Important among these recommendations were strategies for the ESF to maintain and increase its online presence and continue to create new content.

Prior to this project, the ESF was not highly active on social media. Stakeholder social media survey results indicate usage of Facebook, Twitter, and Instagram among the ESF constituency. As such, it would be beneficial for the ESF to engage in these platforms more actively. In charge of its social media is ESF alum Stephen Luke, who generously volunteered his time to give back to the ESF. However, social media marketing requires constant posting and active accounts, which can be difficult for someone maintaining full-time studies and work elsewhere. Stephen Luke provided us with Facebook, Twitter, and Gmail account information, allowing us access to these accounts. We did not manage any of these accounts, though we included in our website and social media guide methods for maintaining these accounts and generating content. We developed guidelines for ESF personnel with little to no experience with social media to maintain the organization's Facebook, Twitter, and Instagram accounts, minimizing time consumption and with the intent of making Stephen Luke's job easier. This allows other ESF personnel to aid with this job and ensure constant social media relevance.

### **5.1.3 Media Collection**

Success on both website and social media platforms often requires constant updating and posting. This can be achieved by adding or posting new informative forms of media, often in the form of videos or testimonials. Additionally, through our stakeholder analysis much emphasis was placed on better presenting scholarship information, as well as engaging more on social media. We were able to conduct five video interviews with scholarship awardees detailing their research experiences through the ESF Scholarship Scheme. These offered valuable insight into the prominent annual ESF scholarship and served as valuable forms of media that could be posted on the scholarship page of the ESF website and advertised on social media promoting the program. We compiled four of the video interviews into a single two minute long video that expressed the benefits of the Scholarship Scheme and why it is such a novel opportunity for the emergency services community. Videos were recorded using both a Panasonic 4K Professional video camera and a GoPro Hero 5 Black camera and clips were edited within Apple iMovie video editing software. Video interviews with scholarship awardees were conducted in order to provide a visual expression of the scholarship experience. As recommended by stakeholders, detailing scholarship information via a video could be a means of better informing interested individuals in a more appealing manner rather than just text. By providing informative videos we sought to improve community knowledge of the scholarship experience and the application process.

We also included a variety of images that can be used on the website as well as posted on social media. Stakeholder analysis indicated the need for increased social media activity. In order to do so, having a collection of media to post will be necessary. These images consist of operational photos and conferences that involve the variety of emergency service agencies found in Victoria, such as MFB and VICSES. We collected these images by inquiring with the media teams of the member agencies about possible resources we could utilize from them to

incorporate on ESF web platforms. We collected these images to help create a more appealing website, and sought out images that would help support the ESF mission through illustrating the duties of emergency service workers and a sense of community, common themes advocated in our stakeholder research. We did not utilize all of the images, so the ESF can now use these images to later on the website to update its appearance or to post on social media directing attention to the tight knit community of emergency service workers, a relationship that the various ESF events have fostered.

## **5.2 Notable Accomplishments**

The team achieved a variety of noteworthy accomplishments throughout the project term that were originally not planned, including additional deliverables and presentation opportunities. These accomplishments further improved the final project from the original intentions and benefitted the project team with more experience.

### **5.2.1 Additional Deliverables**

At the onset of the project during the preparation term, we were tasked with supplying the ESF with recommendations and information on how the ESF website should be updated, with comprehensive instructions that would be provided to a website design contractor. However, we believed that we had the knowledge needed to design the website for the organization directly. Not only that, but we believed our method for website design and maintenance would save the organization a significant sum of funds, as the website could be easily edited and maintained by ESF members without the need of contacting a website designer to make any changes. Providing this information to the ESF, the organization agreed to allow us to redesign and implement a new website rather than simply providing recommendations. This greatly improved the amount of impact our project can have on the organization and benefitted both the organization and our own project experience.

Another additional deliverable we provided was an Instagram account. The ESF did not manage an Instagram account prior to our project. However, based on our research and stakeholder analysis, as well as the goals of the ESF to improve interaction and more specifically reach out to younger emergency service workers, we believed the organization would benefit from having an account. As a result, we created an Instagram account and began building up a follower base. Figure 22 illustrates the ESF Instagram account, ESFAlumni. During the project term we did not acquire a significant enough amount of followers for the Instagram account to be effective, but we did provide information on how to manage the account in our Website and Social Media guide. The organization can reference this guide to bolster followers and begin posting.



*Figure 22: Newly created ESF Instagram page.*

### 5.2.2 Presentation Opportunities

Our design process and the final design was then presented to a large group of ESF stakeholders at the annual Volunteer Leadership Forum, one of the main events the Foundation organizes. We received access to a monitor in the reception area at the event on which we revealed the new website and answered any questions. Prominent board members and a large population of emergency service workers were present. Stakeholders had the opportunity to view the new website, receive a presentation on the project, and discuss with us.

## 6. Recommendations and Final Remarks

Alongside our main deliverables, the team would like to provide some recommendations to the ESF in order to encourage more growth and long standing success, as we believe the organization has an important role in the community and without their support the state of emergency services in Victoria would not be what it is today. These recommendations pertain to the organization's website and social media amongst other things.

### 6.1 Website Recommendations

The previous ESF website had not been updated in quite some time and became outdated as online marketing techniques rapidly changed with the growing technologies surrounding the Internet. As such, we believe it is imperative that the organization continues working on and improving on what we have done thus far with the organization's website and social media in order to remain relevant. Below are recommendations for website maintenance:

- Continually update scholarship information on the website
- Continually update the news page with new stories regarding the ESF and its members
  - Incorporate stories from member organizations
- Change the images found on the website every couple of months
- Track web traffic using Google Analytics or a similar service
- Add online application/registration for the scholarship/annual conferences to the website

Having an active role on a website is important in order to keep traffic flowing to it, if content remains largely the same for weeks and months, individuals have little or no reason to continue visiting it. These recommendations hope to ensure maintained traffic on the ESF website.

Continually providing information on the scholarship experience will be beneficial for both potential applicants, as well as scholarship recipients who would like to share their research to the community. Not only that, but this information is interesting and is one of the main pillars of the organization, and does an excellent job at driving web traffic to the site according to our website survey results. The ESF should continue adding future scholarship awardees to the gallery of recipients on the scholarship page. We recommend that the ESF require scholarship recipients to keep a log of their project experience, and encourage recipients to take many photos that can be advertised on the website. We also recommend that recipients should provide the ESF a corporate headshot, a project brief, the full project report, and any interesting photos and videos from their experience that can be included on their profile within the awardee gallery. As suggested by various stakeholders, and performed by us during the project term, the ESF should record a 10 minute video documenting the recipient's project experience. Included in Appendix



Are the questions we used when conducting our interviews, these may be used by the organization to serve as an example of what questions should be asked. They can enlist the service of the professional videographer Barry Thomas who records footage of annual ESF events to record and edit these videos. Recipients will have this video posted on their scholarship overview page and a compilation can be created yearly to represent the experiences of recipients from that year.

If the goal of the ESF is to offer more through their website to the emergency services community, we do not believe that the social space alone will fuel the success of the website, but rather if the website also serves as a hub of emergency services news and information it will excel. The ESF should aim to post any news regarding the organization and its members, such as career and research updates on the News page. If there is not much news in these topics the organization can reach out to member agencies and advertise their news and events, such as fundraisers and heroic deeds. Posts like these will help the website become a hub for emergency services rather than just a website for scholarship information. By cross-linking these stories and the member agencies, the website has the potential of improving its SEO. Not only will these stories help attract the emergency service community, but it may compel random users to donate to the organization. As mentioned by various stakeholders, providing imagery of the emergency services and the community helps shed light on the need for the ESF and can aid in fundraising.

We recommend that the ESF continues to collect images and videos of emergency services, annual events, and the experiences of scholarship awardees in order to have the ability to occasionally change the appearance of the website. Changing images on the website every couple of months gives the website a new appearance and shows stakeholders that the organization has an active role online. As a result, users may be more inclined to visit the website to see what has changed.

We believe that the ESF should begin to more actively track statistics on their website. While Google Analytics was already implemented on the previous website, it was not regularly checked and therefore the data it provides was not used to full effect. Based on our background research on ensuring website effectiveness and from various interviewees, web analytics is an essential tool in maintaining a website. We would have liked to implement this practice to see the results of our website; however, in order to get meaningful data, web tracking results needs to be recorded over a long period of time, such as on a monthly basis. Due to time constraints we were not able to incorporate this aspect into our project, but we believe it can be extremely beneficial for the ESF to begin tracking web traffic on their website, a view supported by online marketing best practices and interviewees we spoke to involved in media and business. In order to seek out help in regards to this topic, we suggest the ESF speaks with EMV Senior Officer of Digital Media Ben Edwards who offered to guide us through web tracking and utilizing the Google Analytics service.

Stephen Luke requested for online application and registration capabilities for the scholarship and annual events to be added to the website. We would have liked to implement this feature, but based on the length and complexity of the application we did not believe that there would be enough storage on the website to make this achievable. In regards to registering for events, Jennifer Davis also believed that it is best to keep registration with the company that organizes the event as she did not want to take away any revenue from them by moving the registration to the ESF website. However, we believe creating this service on the website will make applying and registering easier for interested individuals, and will also source all the information into one location, potentially making the review process easier for Jennifer Davis. As mentioned by stakeholders, making the application process more streamlined may attract more potential applicants and easier registration may attract more attendees to sponsored events. Therefore, we believe the organization should look into implementing this in the future.

## **6.2 Social Media Recommendations**

Based on survey results and interviews, as well as research in regards to the effectiveness of social media for nonprofit organizations, we believe the ESF will benefit from a more active role on social media. ESF member agencies have also become heavily involved on social media, demonstrating the role it has in the emergency services community. Specific tips and advice in regards to what and when to post on social media are illustrated in the Website and Social Media Guide found in Appendix H. Below are general recommendations for the maintenance of ESF social media:

- Increase Facebook activity
- Increase Instagram activity

Based on discussions with a board of ESF scholarship awardees and individuals such as Neil Soullier, it is evident that the ESF Facebook page is currently underutilized. The ESF Facebook page has already established a following with 681 people liking the page and 671 people following it. Thus, increased activity on Facebook will readily be broadcasted to a large amount of ESF constituents. Similar to our recommendations for the ESF website, we believe that creating a hub for emergency services news and events will be beneficial for the Facebook page in drawing attention. The ESF can post news and events regarding the Foundation, as well as news and events of member agencies to drive interest. We also recommend that the ESF allow and require scholarship recipients to post every couple of days on the ESF Facebook page status updates of their research and any interesting photos or videos while on their research experience. This was recommended by past scholarship awardees and is a goal of the organization to better advertise the benefits of their scholarship opportunity. This also relieves the organization from having the role of posting frequently, as now this duty can be placed partially on recipients and the community. This gives the Facebook page an active appearance, while the organization can have a more hands-off approach towards managing it, easing the workload for limited number of

ESF members involved with the website and social media. We believe that Facebook may even be a more effective medium of social interaction for research discussion than the social space on the website, as many individuals already have Facebook accounts and it is already well established. Therefore, improving ESF Facebook activity has the potential of achieving many of the organization's goals and substantially improving interaction amongst the emergency services community.

Prior to our project, the ESF did not manage an Instagram account. However, based on the practices of similar organizations and the rising usage of Instagram in online marketing, we believed that the creation of an Instagram account would be beneficial for the organization if it is maintained properly. Instagram is widely used in Australia, especially amongst the younger generation, and has seen heavy usage amongst emergency service agencies, such as the MFB and Ambulance Victoria. With the goal of reaching out to younger emergency service workers and improving stakeholder interaction, we recommend the ESF utilizes the Instagram account we have created to achieve this goal. Using this media the ESF can broadcast the activities of the emergency services communities such as fundraising events and news. Another source of information they can advertise are the achievements of scholarship awardees. This service is based on the posting of images and videos, so it will also be necessary for the ESF to continue to collect related media. Instagram requires regular usage, almost on a daily basis, and therefore in order to find a full degree of potential success on this platform the ESF will need to be much more active on social media than it has been in previous years. It may prove beneficial if the ESF seeks the aid of a media manager from member agencies to maintain and post on the ESF account, as the ESF has a limited number of individuals working of ESF social media. Nevertheless, if these steps are taken, the organization can widely improve its outreach and interaction.

### **6.3 Possible Future Endeavors**

From our stakeholder analysis, some individuals recommend making changes to the ESF branding both major and minor, whilst others believed the ESF branding should remain the same. Graphic design services could help the organization rebrand itself. One reason was that many stakeholders like the symbolism and recognition of the various emergency services, with the red, blue, and yellow representing Victorian emergency service agencies.. Another reason is that many stakeholders appreciated the simplicity of the design as well as the history behind it as the logo has been utilized throughout the ESF's history. Based on this input, as well as time constraints, we did not pursue options for re-branding ESF assets. We believe the ESF logo represents the organization and the emergency services community well. However, in the event that the ESF seeks to rebrand, they can look towards graphic design services, such as 99 Designs.

## 6.4 Conclusion

Through our content collection and research we were able to create a more visually appealing and captivating website that may attract more individuals to the ESF cause, and help the ESF in achieving its new vision due to the changing environment in emergency services. The ESF seeks to attract the younger generation of emergency service workers and to begin attracting the general public as a necessary charity in the event of large-scale disaster. It also seeks to reinforce the mission of preventing widespread loss in the case of such of an event through innovative research in responder safety and emergency service practice. We believe the ESF will benefit greatly from improved website and social media practices, and that the guides and assets we have provided will serve as an excellent starting point for the ESF in achieving its goals of increased interaction with the emergency services community and the general public. In order to benefit from online stakeholder interaction, the ESF must maintain an active presence across their platforms. We hope to see the future success of the organization for the years to come and that the work we have done and the resources we have provided will be beneficial for the ESF. Specifically, we would like to see a more actively updated website and the formation of a larger and more dedicated community interacting with the ESF on their website and social media, hopefully resulting in an increase in donations to the organization.

This project has created an enriching experience as a whole illustrating the benefits and uniqueness of the Interactive Qualifying Project (IQP) and the WPI Plan. We have learned a tremendous amount in website design, social media, and online marketing. More importantly, we met many friendly and interesting people willing to introduce us to their stories and their community. These connections provided useful input and background to our project work, but also had profound effects on our perspectives of culture and the world. This opportunity has provided us with many insightful experiences that will shape us into well-rounded professionals competent both technically and socially. With that said, we hope to see the future success of the Emergency Services Foundation in the years to come and the resulting support for the emergency services community.

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## Appendix A: Effective Web Design Constructs

Table A1. Constructs for effective website design. Adapted from (Lee & Kozar, 2012).

Construct	Description
Consistency	<ul style="list-style-type: none"> <li>- The website repeats the same structure, components, and overall look across pages.</li> </ul>
Navigability	<ul style="list-style-type: none"> <li>- The website provides multiple search features to obtain target information.</li> <li>- The web page can be reached through multiple pathways.</li> <li>- Locating what is needed on this website is easy.</li> </ul>
Supportability	<ul style="list-style-type: none"> <li>- Just-in-time support is always available.</li> <li>- Getting support through a series of options is easy and convenient.</li> <li>- Features are provided to ask for help.</li> </ul>
Learnability	<ul style="list-style-type: none"> <li>- The contents provided by the website are easily understood.</li> <li>- Reaching certain pages are easily rememberable.</li> <li>- The website is easy to become accustomed to.</li> </ul>
Simplicity	<ul style="list-style-type: none"> <li>- Succinct website structure.</li> <li>- Most components of a page are comprehensible within seconds.</li> <li>- No unnecessary and/or redundant components.</li> </ul>
Interactivity	<ul style="list-style-type: none"> <li>- Provides an appropriate amount of interactive features (i.e. graphics, pop-up windows, animation, music, sound).</li> <li>- Contains components to help interaction with consumers.</li> <li>- Interactive features are vivid and evoke responses.</li> </ul>
Telepresence	<ul style="list-style-type: none"> <li>- Feeling of emotional connection with website.</li> <li>- Empathy and personal ties with website.</li> </ul>
Credibility	<ul style="list-style-type: none"> <li>- Safe transactions with website</li> <li>- Trusted with keeping personal information safe.</li> <li>- Stable website.</li> <li>- Services are routinely delivered as promised.</li> <li>- Detailed information on security features.</li> </ul>
Content Relevance	<ul style="list-style-type: none"> <li>- In-depth information is provided.</li> <li>- Information is up-to-date and accurate.</li> <li>- Scope of information is appropriate.</li> </ul>
Readability	<ul style="list-style-type: none"> <li>- Wording is clear and easy to understand.</li> <li>- Enough white space (or margins) to make it easily readable.</li> <li>- Every page contains the appropriate amount of components to fit into a page.</li> <li>- The website uses colors and structures that are easy on the eyes.</li> </ul>

# Appendix B: Gantt Chart of Project Timeline

Task	Week							
	prep	1	2	3	4	5	6	7
Research Strategies	Active	Active	Active	Inactive	Inactive	Inactive	Inactive	Inactive
Assess Stakeholder Needs	Inactive	Active	Active	Active	Active	Inactive	Inactive	Inactive
Build Model Designs	Inactive	Active	Active	Active	Active	Active	Active	Inactive
Compose Strategies Package	Inactive	Inactive	Inactive	Inactive	Active	Active	Active	Active

## **Appendix C: Project Introduction and Interview Consent Script**

Hello. We are students from Worcester Polytechnic Institute (WPI), Massachusetts, USA working with the Emergency Services Foundation (ESF) to help improve its website, expand its outreach capability, and appeal to its stakeholders. Would you agree to join us in a 30 minute interview to assess the experiences of emergency service workers? Your participation is completely voluntary and you may decline to answer any of our questions or end your participation at any time. May we make an audio recording of the interview to ensure we accurately represent your responses? May we quote you personally, as a member of your organization, or not at all?

## Appendix D: Sample Online Survey Questions

The following questions were used to assess the opinions of a wide range of stakeholders on the ESF's old website and social media presence.

1. Have you visited the ESF website (esf.com.au)?
2. How frequently do you visit the ESF website?
3. What resources have you used on the ESF site?
4. Which are the most useful? What do you like about these pages?
5. Which are not useful? What could be improved on these pages?
6. What would you like to see?
7. Any comments on the site in general? (Appearance, navigability, etc.)
8. Rate the (appearance, navigability, content) of the website.
9. How important is \_\_\_\_\_ (navigability, appearance, depth of information, peer users) of a website to you? (rank)
10. What is your preferred method to get updates on the ESF? Social media, email, mail, newsletter, or other (specify).
11. Do you use social media? If yes, which site(s)?
12. How much time each week do you spend on the Internet?
13. Approximately how much of your time online is spent on social media?
14. Would you be interested in participating in an interview with us? If so, please provide your email address or phone number.

## **Appendix E: Sample Interview with Emergency Service Workers**

Semi-structured interview to assess the experiences and opinions of emergency service workers and their families.

Interviewee: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Note-taker: \_\_\_\_\_

Location: \_\_\_\_\_

Date: \_\_\_\_\_

1. Could you tell us a little about your job/what you do?
2. Why/How did you become involved with the ESF? (Ask for details on the experience)
3. Were you an ESF scholarship recipient? (Ask for details on the experience)
4. Have you attended an annual Emergency Management Conference or Volunteer Leaders Forum?
5. Have you or a family member received aid from the ESF?
6. What type of content would you like to see on the ESF's website or social media pages?
7. Do you have any issues contacting or receiving information from the ESF?
8. Do you have any other thoughts on the ESF or emergency services work and support systems in general?

Would you be interested in participating in a video interview to help us generate content for the ESF for their website and social media accounts?

9.

## **Appendix F: Sample Video Interview Questions**

This interview will require written consent. A consent form will be provided to the interviewee which details the reasons we are conducting video interviews, privacy concerns, and how the video will be used.

1. Please introduce yourself by stating your name and position.
2. Tell us about your day-to-day duties.
3. Are there any particularly important experiences you have had in your career that you would like to share?
4. How did you hear about the ESF and their scholarships?
5. What was the application process like?
6. What did you do with your scholarship? Where did you go? What did you research?
7. How has completing an ESF scholarship affected your career?
8. How has your research impacted emergency services in general in Victoria?
9. Do you have any final remarks about the ESF or life as an emergency service worker?

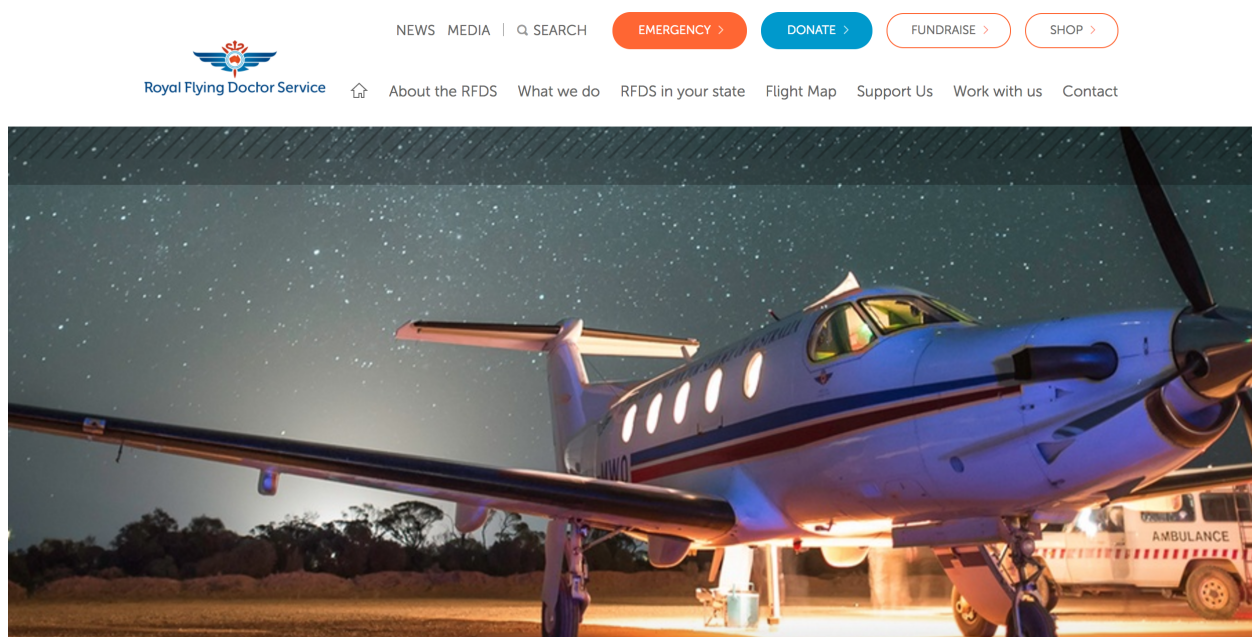
## Appendix G: Analysis of a Website

Many websites follow a relatively standard formula in terms of layout and design. Below are some key design choices found in successful corporate and nonprofit webpages:

- Primarily visual experience
  - Large photos
  - Minimal text
  - Other forms of media on the homepage
    - Social media newsfeed
    - Informative videos
    - Testimonials

An in-depth analysis of some example webpages may prove useful in illustrating some of these specifications. Below is an analysis of the Royal Flying Doctor Service (RFDS) webpage found at <https://www.flyingdoctor.org.au/>:

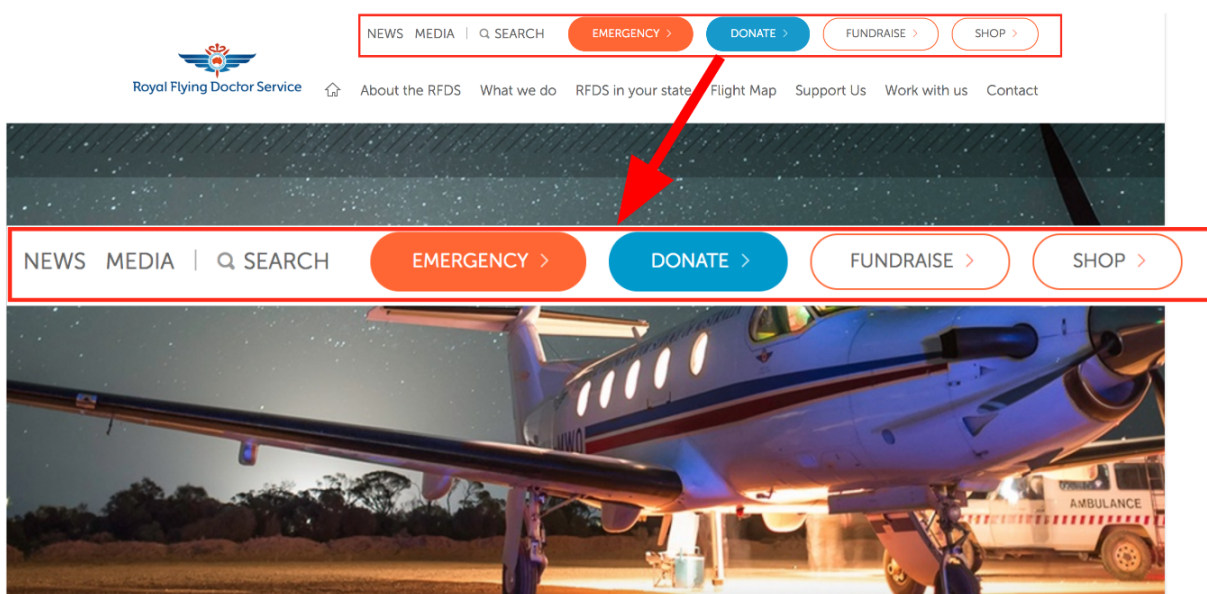
When arriving to the RFDS website, this is the homepage a user is greeted with.



The user is greeted with a photo of one of the RFDS's Cessna C208 airships at night in the Australian outback. Interesting and captivating photos are effective in offering visual appeal, but may also provide much information with minimal text.



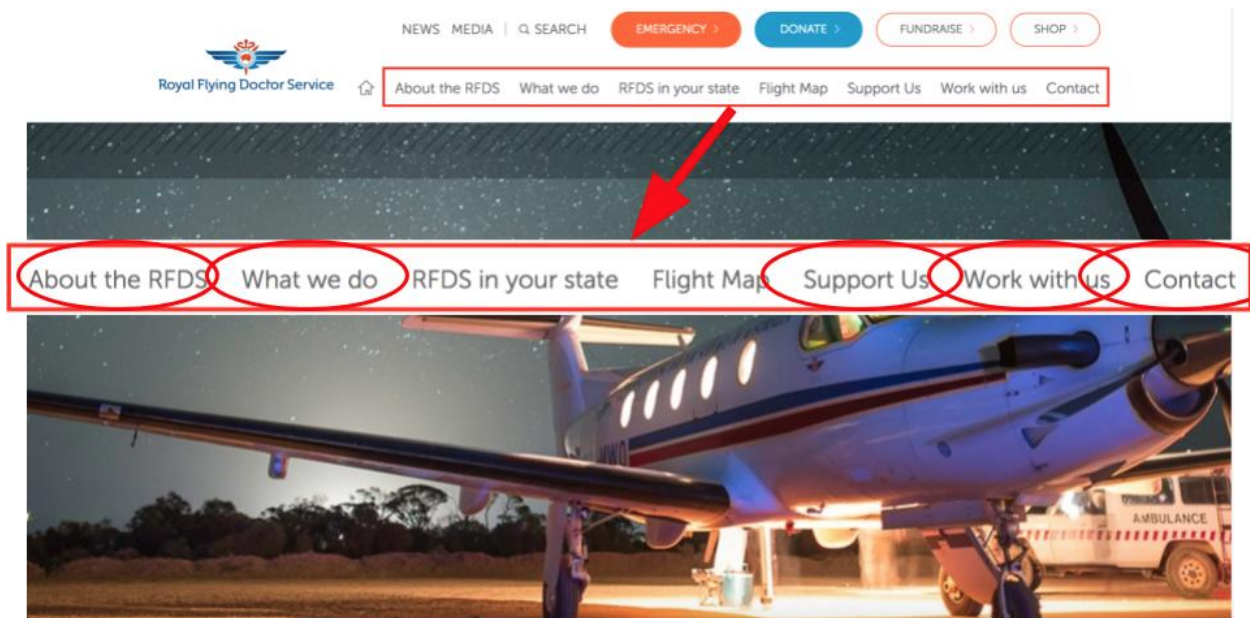
Many other best practice devices are found on the homepage. The various forms of navigation in the header of the website offer immediate access to the most common call-to-actions<sup>1</sup> users seek out when visiting a nonprofit site.



This navigation menu has prominent buttons to reach emergency information, to donate to the RFDS, other options to fundraise, as well as shop on the RFDS website. The **EMERGENCY** and **DONATE** buttons are further highlighted by having different colors than the rest of the options, more easily attracting the eye, and bringing the more prominent information to the user's attention sooner (The pages these CTAs lead to will be discussed in depth later on). Other actions this menu offers is to recent news and media related to RFDS and a search bar for easier website navigation. Many of these CTAs are found on the majority of websites on the internet, and the NEWS, MEDIA, SEARCH, DONATE, FUNDRAISE, and SHOP buttons may be useful to implement on the ESF's webpage. Informing constituents through the news and media outlets makes an organization appear more active and creates a greater sense of community, and it can illustrate how an organization is offering aid. The ESF already requires a DONATE button, and a FUNDRAISE button may be useful in implementing fundraising practices or instead be a button leading to registration to ESF sponsored conferences. The SHOP button may be useful for selling fundraising goods like monthly newsletters or the Ashley Emergency Services Collector Bear sold during the holiday season.

<sup>1</sup> Call-to-action: various pages and buttons that can be clicked on a web page and are a good measure of user activity on the site.

Below this navigational menu is another submenu that offers more insight in regards to the RFDS and relevant contact information.



The most pertinent links translatable to the ESF website are highlighted in the image above. The “About the RFDS” and “What we do” links bring the user to pages offering information on the history and mission of the RFDS. The “Support Us” link offers multiple pages related to fundraising and donating to the RFDS mission. “Work with us” links to career, student programs, scholarship, and volunteer pages offering information on those various programs. Lastly, “Contact” provides information on where the RFDS is located in the various states, and contact information that can be used to reach the RFDS. All of these links lead to sources of information that are necessary for an organization like the ESF to include. Currently the ESF contains much, if not all of this information. If anything the information simply needs to be organized better, similar in manner to the RFDS website. This will allow visitors to reach the information they were looking for in a more navigable and prompt manner.

Increased interactivity makes a webpage look more appealing and often makes website navigation more engaging with the user. Scrolling down the RFDS website illustrates a couple of the main features nonprofit organizations implement on their websites to better inform their members as well as to create more interactive engagements between the organization and its constituency. Access to testimonials, interactive maps, personal stories and testimonials, event listings, and social media access are just a few features that allow for more captivating and

personal experiences on a webpage. The ESF can benefit greatly if it implements similar features on its webpage, doing so may greatly improve the services they offer current members, and it may attract new members to the cause and goals of the ESF.

## Our Mission: To provide excellence in aeromedical and primary health care across Australia

### How we do it

The Royal Flying Doctor Service of Australia (RFDS) is one of the largest and most comprehensive aeromedical organisations in the world. Using the latest in aviation, medical and communications technology, we deliver extensive primary health care and 24-hour emergency service to those who live, work and travel throughout Australia.

Scrolling further down the page the RFDS offers a summary on its mission and how they operate. Past that two personal anecdotes of how the RFDS has helped people in the community are advertised. Personal anecdotes such as these demonstrate how the RFDS operates, why it is a needed service, and how they positively impact the lives of many throughout the community. These anecdotes give the website a more personal touch, and help justify the RFDS mission, possibly leading to more interest from the public and the resultant fundraising.



### Aeromedical Retrieval

With a waiting room of 7.13 million square kilometres, we provide 24-hour aeromedical emergency services to country Australia.

[READ MORE >](#)

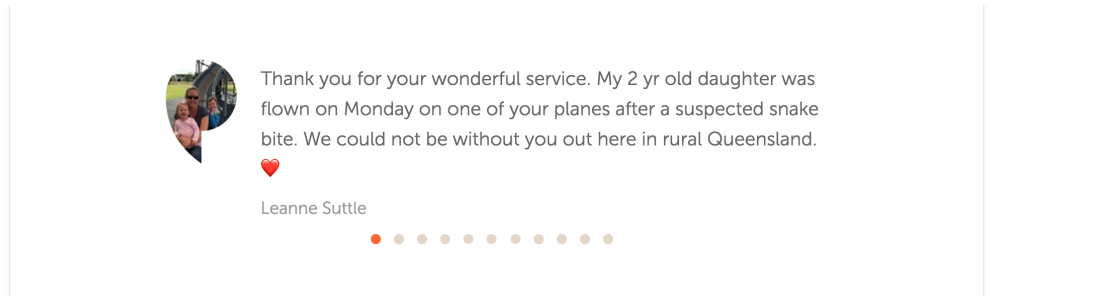
### GP and Nurse Clinics

The RFDS provides regular fly-in fly-out GP, Nursing and Allied Health Clinics to rural and remote communities.

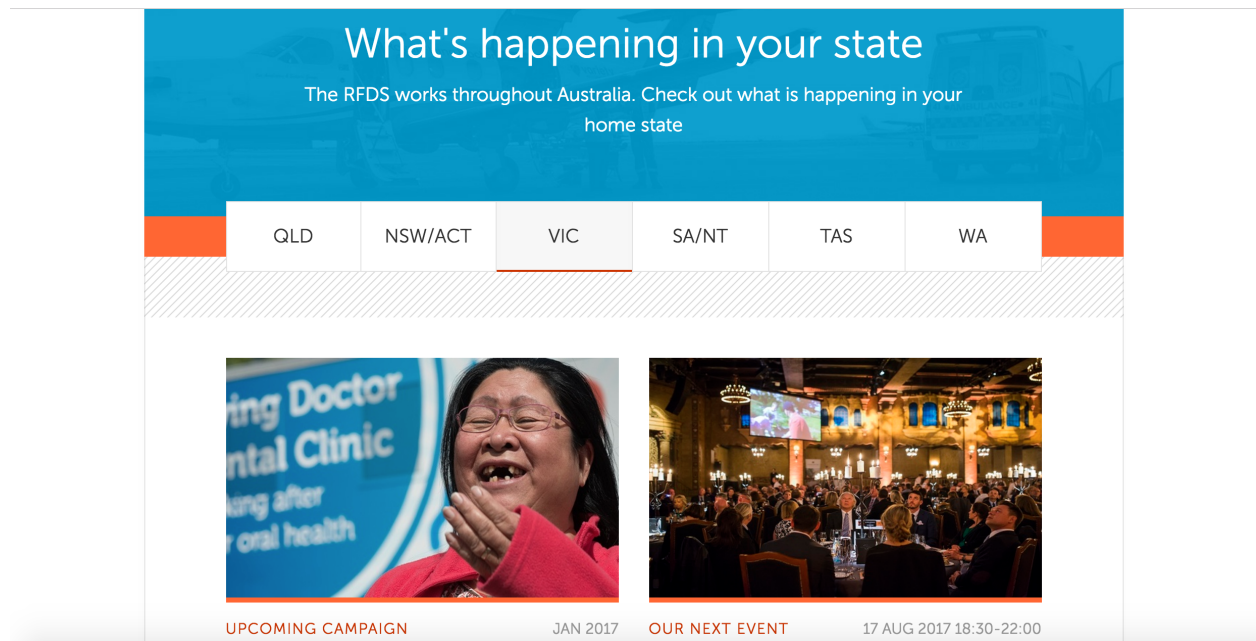
[READ MORE >](#)



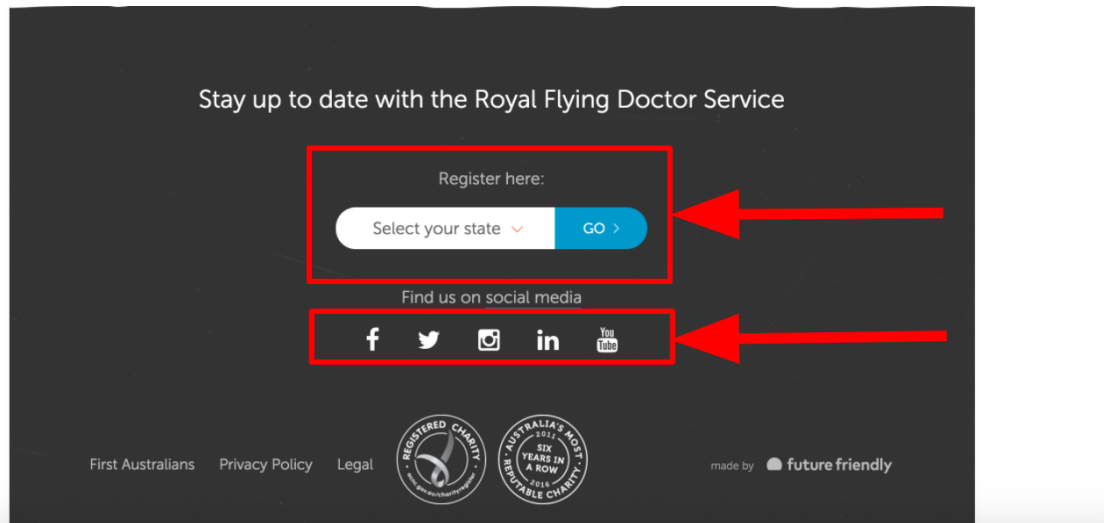
Below these personal anecdotes are testimonials that add even more personality. These testimonials have the same effect as the stories above, but can often convey the message in a short two-to-three sentence blurb. Below is an example of a testimonial found on the RFDS page.



It is important for an organization to inform members of upcoming campaigns and events. The RFDS also includes this information on the main page. Having all this information on the main page is important because it is the most commonly sought information and is the first page a user is brought to. Below is an image of the portion of the main page that the RFDS devotes to event listings.

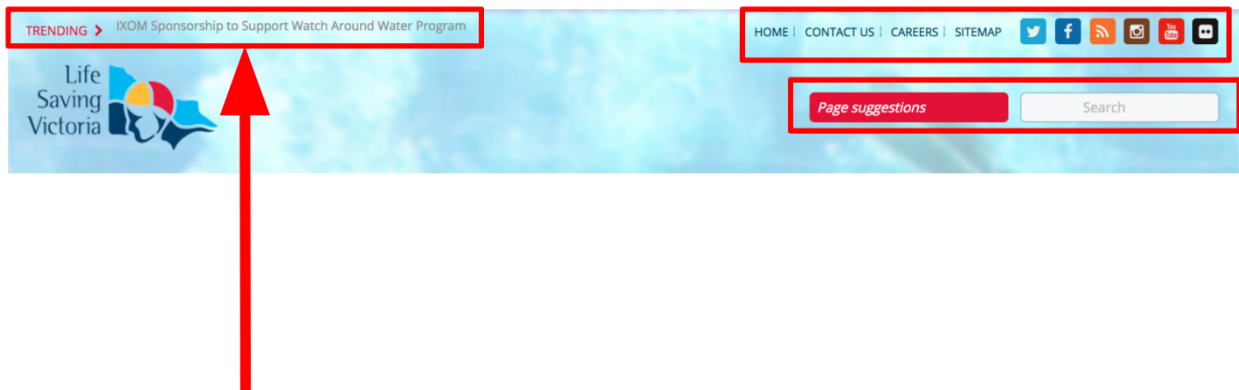


Lastly, the RFDS offers a contact and media portion at the bottom of the main page. Here a user can register to receive informative e-mails on upcoming events and news from the RFDS. Also listed are important links to social media, where members can become connected with the RFDS on Facebook, Twitter, Instagram, LinkedIn, and YouTube. Having the ability for users to be connected on multiple outlets allows an organization to be more connected with their members and it can form a sense of community between the organization and their members.



All the features illustrated above are some examples best practices in web design that nonprofit organizations have implemented onto their websites. The RFDS website had many useful features that are often indicative of a successful webpage, however, there are some more that were not included that can be of use for the ESF.

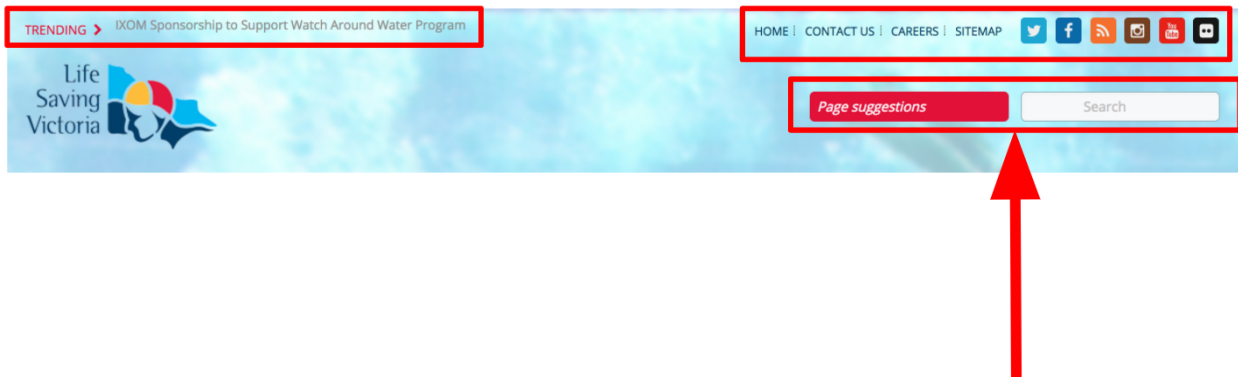
Life Saving Victoria (LSV) offers a very appealing website that has many of the functions the RFDS page had plus some more. Below will be an analysis of the new features, many redundant features that were found on the RFDS website will be omitted. For your reference the Life Saving Victoria webpage can be found here: <http://lsv.com.au/>



Something unique on the LSV main menu, not seen on the RFDS menu, is a news bar that scrolls through various trending news related to the LSV. This offers a unique, rapid way to advertise relevant news events to website users. If a user seeks more information on the trending news they can simply click on the news title which will bring them to a page with full information on the topic.



The main submenu contains many of the same features as the RFDS webpage, but also includes immediate links to LSV social media, whereas, the RFDS webpage only included this information on the bottom of the main page. Having links to social media accounts readily and immediately available at the top allows interested users to access this information quickly, and it may better advertise the fact an organization has these accounts than if it were only found on the bottom of the main page.



Like the RFDS page, the LSV menu also offers search functionality to make website navigation easier and allows users to easily search for relevant information on the entire website. This is an important function if a user knows what specific information they seek, but either do not want to scroll through a website looking for this information or are having difficulty doing so.



Another point of interest that the LSV website utilizes is the integration of its social media. Other than the links seen at the top of the webpage, upon scrolling further down, the user can view a feed of the various social media accounts the LSV has: YouTube, Facebook, Twitter, Instagram. The YouTube feed has access to play a relevant video on-site. The various feeds are live feeds of LSV social media posts.



The ESF currently has a YouTube, Facebook, Twitter, and LinkedIn, making features, such as those shown above, useful in informing visitors and advertising their other online platforms. By utilizing features demonstrated in the past two websites, the ESF can improve its online communication and can deliver a more appealing, interactive, and informative website.

## Appendix H: User Guide



# Website and Social Media Guide

Designed for the Emergency Services Foundation



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## Preface

This document is designed to aid in the management of the Emergency Services Foundation website and its social media accounts through documentation of important aspects of web development and use of a Content Management System (CMS).

## Web Security

Web security is an important consideration when running a website. If one is not careful, he/she and visitors to his/her website may be in danger of scams and attacks. Using authentication services like reCaptcha helps to deter these attacks, by distinguishing human users from malicious robots seeking to steal personal information or compromise website integrity. Encryption and security services like this are especially important when monetary transactions are involved, as these can lead to vulnerabilities when transferring financial information. Using a known, secure, and reputable service like Paypal greatly reduces this risk. Plugins and apps like WordFence can take care of most security issues, but it is important to be aware that your website may face attacks.

The plugin Wordfence adds security by allowing an administrator to block IP-addresses from certain regions, including those known for frequently trying to hack websites. In addition, Wordfence increases security by removing users that are clicking through a website too quickly, such as bots attempting to advertise other sites on forums as a way for another site to increase its ranking in search engines.

When using plugins, it is important to keep them up-to-date, as outdated plugins are less secure than those updated with the most recent security protocols. In addition, some hackers target outdated plugins as a means to gain access to webpages.

## Search Engine Optimisation

The process of making a website more visible on search engines such as Google, known as search engine optimisation, allows a website to get increased traffic. Search engine optimisation (SEO) can be difficult because today's search engines look at over 200 factors, and the way they rate these factors is not public knowledge. In addition, in an attempt to provide better recommendations, search engines consistently update the way they weight each factor. It is possible, however, to look at sites that rank high in search ratings as well as investigate what search engines themselves say about how to optimise for their algorithms. Methods of optimisation will be highlighted below.

Through official posts from Google and Bing on methods of increasing rankings in their respective search engines, there are a few important things that a web developer should take note of. First, it is important to keep the site setup so that it has a clear hierarchy and static text

links. Keep the website design for users as opposed to engines, ensuring that content is good and that title elements are descriptive as these are one important aspect to how search engines define a site and make sure to keep URLs human friendly as opposed to a long string of numbers. WordPress should do this automatically.

Another way to help increase visibility is by making it easier for search engine's crawlers to find content on the site and match it to common search terms. By using common terms people use to search the web as well as links to other pages within the site, web crawlers and users have an easier time finding content.

For rich content, such as images, video, or audio recordings, include a way for the search engines to more easily index the content. For images, alt text can help a crawler understand what is going on, for videos and audio recordings a summary or transcript can help a crawler better understand the content on the page.

In order to aid in SEO, the plugin **Yoast SEO** was installed on the ESF website. This plugin provides analyses of each page and post on your website in the editor. It provides suggestions and recommends fixes to improve search engine optimisation and readability.

## Purpose of this Guide

Clear and concise instructions are provided in this guide to help website administrators with updating the ESF website. While WordPress contains too many features to cover concisely in one guide, the following instructions should allow a person without a web development background to make most necessary changes to the website.

Social media can be considered a vehicle to increase homepage visits and general exposure to the public. For this reason, guidelines on best practices for social media are also included in this manual.

# 1. Website Maintenance

This section will detail how an admin can easily navigate the intricacies of website upkeep. It will include both page and media management. These consistent updates to the website will help retain returning users.

In order make most changes to your website, first navigate to and log in at:

[esf.com.au/login/](http://esf.com.au/login/)

**Note:** There are often many ways to make a given change to your website. This guide describes how to make changes in a method that is simple, but may not always be the quickest. If you find a faster or easier way to make changes, there is no need to adhere to this guide step-by-step.

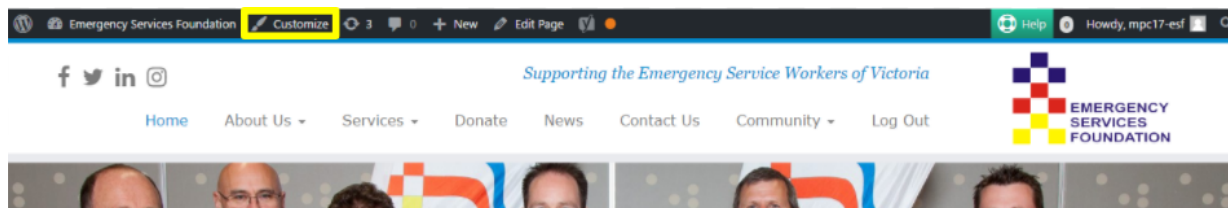
## Themes

*“Fundamentally, the WordPress Theme system is a way to ‘skin’ your weblog. Yet, it is more than just a ‘skin.’ Skinning your site implies that only the design is changed. WordPress Themes can provide much more control over the look and presentation of the material on your website.” - WordPress Codex*

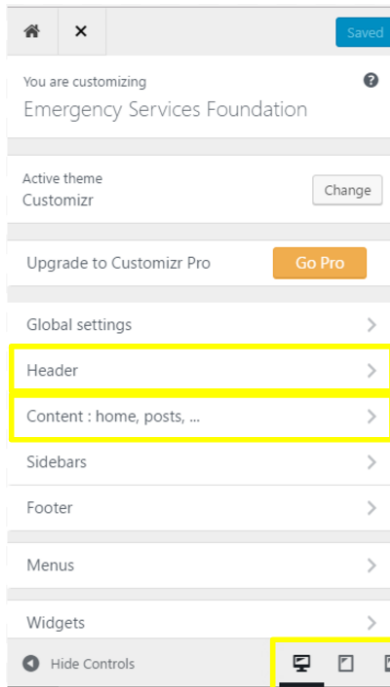
Themes determine the overall appearance of your website. There are thousands of free and paid Themes available. Changing the Theme of your website will not affect the content of pages, but may result in the loss of Theme specific features, such as sliders and featured pages. Reverting back to a previously used theme will cause this content to reappear, as long as the Theme was not completely uninstalled.

In the construction of the Emergency Services Foundation website, the Customizr Theme was chosen due to its extremely positive reviews and the high degree of customizability it offers without requiring coding knowledge. This Theme also offers a paid version, called Customizr Pro, that allows for additional customization of fonts as well as other features that may prove useful, but may not be necessary for the ESF.

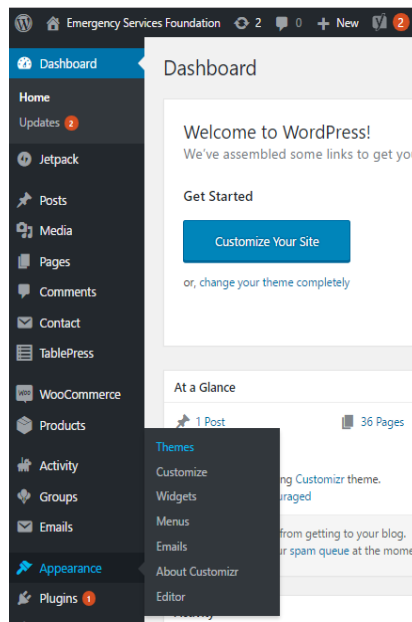
It is recommended that you select **Customize** from the toolbar while on the ESF website and explore all the available options. There are too many features to cover in this guide, so you should familiarize yourself with the options available in the Customizer.



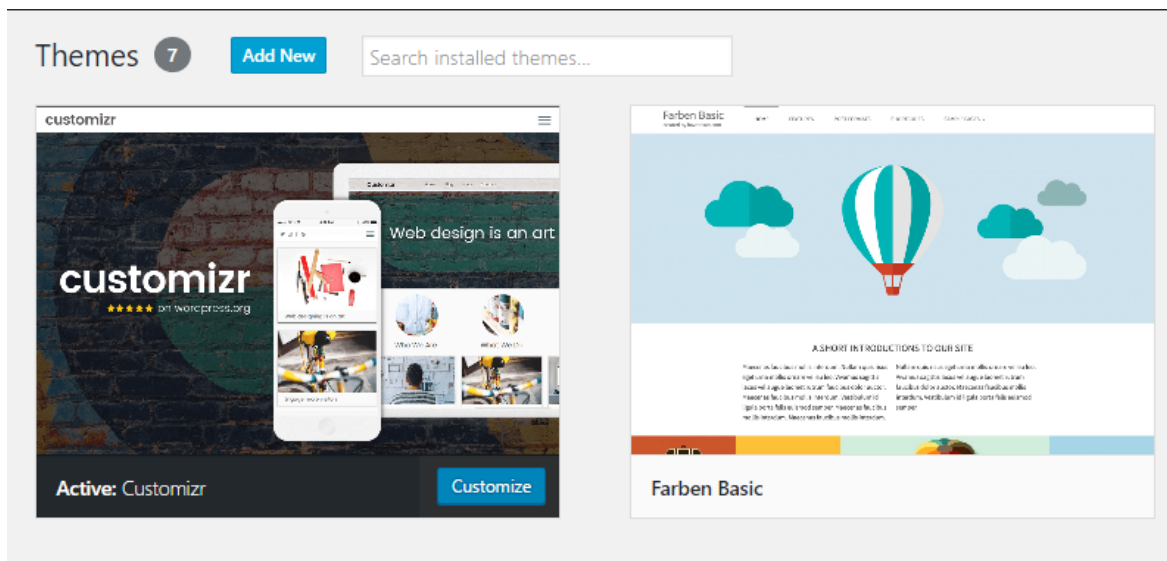
Options of particular interest are boxed in yellow in the image below. Try clicking these to explore their functions, and take a look through other options as well.



Additional Themes may be downloaded by navigating to **Appearance > Themes** from the **Dashboard**.



Next, select **Add New**, and then hover over and select **Install** on the Theme of your choice.



**Important Note:** To ensure security and operation of your website, you should only add themes with positive reviews, a high number of active installs, and recent updates.

## Plugins

*“Plugins are ways to extend and add to the functionality that already exists in WordPress.”* - WordPress Codex

WordPress is a content management system (CMS) that offers a high degree of customization. However, there are limits to what the base form of the WordPress is capable of doing. Fortunately, WordPress is also open-source, meaning that any user can add to the CMS. This is primarily done through the creation of plugins. Plugins are extensions to WordPress that improve usability and functionality of a website. With thousands of plugins available, it is possible to solve many problems with your website with a quick installation and activation of a plugin. Plugins, however, do not necessarily work with each other or with the chosen theme of a website. Therefore, it is important to check the functionality of your website after the installation and activation of each plugin. If the website or its components do not operate properly, you should deactivate or uninstall the most recently activated plugin.

Plugins can be immensely useful tools. If you run into a problem with WordPress or find that you cannot implement some functionality that would be helpful to the effectiveness of your website, a quick Google search or short keyword search of WordPress plugins can often lead to a solution. Once installed, regularly check the WordPress dashboard for notifications about plugin updates so that you can keep your website functional and secure.

A number of plugins have already been installed for the Emergency Services Foundation Website:

<b>Akismet Anti-Spam</b>	Helps protect blogs from spam.
<b>BuddyPress</b>	Build community and implement social media features.
<b>Contact Form 7</b>	Create flexible contact forms.
<b>Custom Sidebars</b>	Insert highly customizable sidebars.
<b>Move Login</b>	Change login URL extension from /wp-admin/ for security purposes.
<b>PayPal Donations</b>	Accept donations on your website.
<b>Rotating Tweets (Twitter widget &amp; shortcode)</b>	Display recent activity from your Twitter feed.
<b>TablePress</b>	Embed tables without having to write code.
<b>UpdraftPlus WordPress Backup Plugin*</b>	Backup your website.
<b>WooCommerce</b>	Sell products on your website.
<b>Wordfence*</b>	Improves security of your website.
<b>WP Gallery Custom Links</b>	Link images in galleries to specific pages.
<b>Yoast SEO</b>	Analyzes website content and provides suggestions to improve search engine optimization and readability of pages.

\*Premium or paid version of this plugin is recommended by the WPI team.

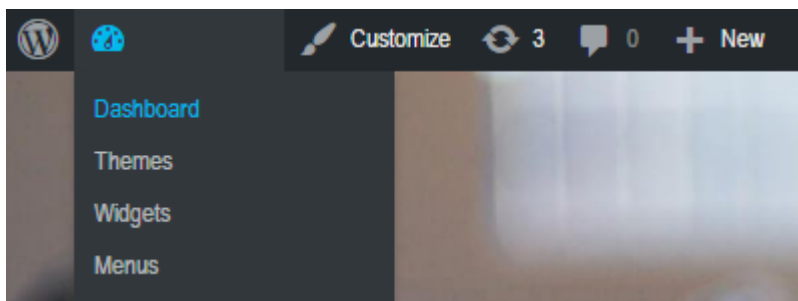
All of these plugins were chosen for the specific functions they provide and the high user reviews they received compared to similar plugins. Should you find any yourself limited using

any of these, you may want to replace a plugin with a similar one or read the documentation on a plugin and decide whether the features provided by the premium version are worth the cost.

Plugins can be added in much the same way as Themes, except by selecting **Plugins** from the Dashboard menu instead of **Appearance > Themes**. As with themes, you should only add plugins with positive reviews, a high number of active installs, and recent updates.

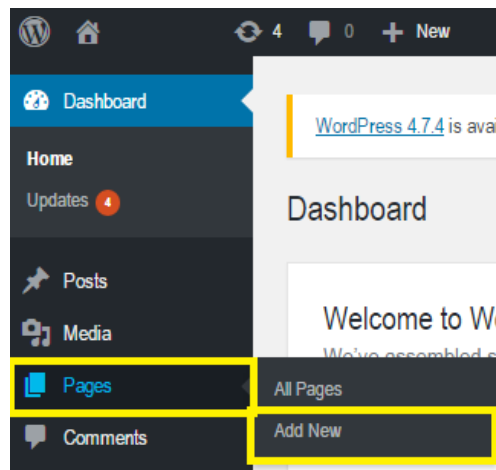
## Pages

WordPress allows for fairly user-friendly management of pages. It has a simple access point which can be found on the scrolling sidebar which readily appears on the left-hand side of the **Dashboard**. The **Dashboard** can be accessed by hovering over the clock-looking button in the furthest top-left hand corner and clicking the **Dashboard** option. Here you can find the sidebar with a link titled **Pages**. This is the main area where we manage our pages.



## Adding

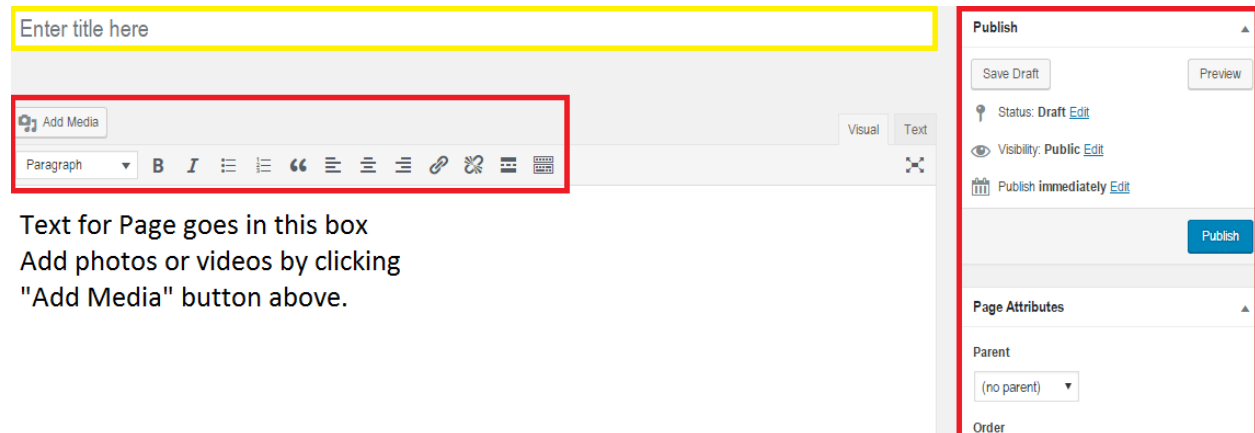
Located on the middle of the sidebar in the **Dashboard** is a button titled **Pages**. Hovering over this button will display a subbar with a button titled “**Add Pages**.” Clicking this button will bring you to WordPress’ page creation feature.





## Editing

Once in the Wordpress page creation tool, you will see a faded **Enter title here** locator. Clicking on this grey tag will allow you to type and replace it with the new page name. Beneath this new title is the toolkit for editing the page, shown in **red**. It contains formatting tools for text and allows for insertion of new media.



Before you publish a page, you should think about the organisation of your website and how this page fits in. If the topic of a page falls under the topic of another page, you may want to set the broader page as a **parent** using the menu shown above in a red box and below the **Publish** button. This helps to maintain the hierarchy of your page, reflected in the URL. In general, if the only way to navigate to page B is through a link on page A, then page A should be set as the parent of page B. If these pages are going to be added to a menu, they should be organised according to the parent-child hierarchy; more information on this is covered in the **Reordering** section below.

### Example:

When designing this website, information about scholarships was put into the pages **Scholarships**, **Scholarship Applications**, **Scholarship Recipient Reports**, and **Scholarships for Volunteers**. Overviews of scholarships were also given their own pages. In order keep the site organised, **Scholarships** (the page with the least specific topic) was set as the parent of **Scholarship Applications**, **Scholarship Recipient Reports**, and **Scholarships for Volunteers**. **Scholarship Recipient Reports** was set as the parent for all of the scholarship overviews, and since **Scholarships** are a service provided by the ESF, **Services** was set as the parent of **Scholarships**. This results in a tree represented visually below, where alternating colors represent parent-child relationships of pages:

## Services

### ↳ Scholarships

#### ↳ Scholarships Applications

#### ↳ Scholarship Recipient Reports

##### ↳ Reagan Key's Scholarship

##### ↳ Wayne Rigg's Scholarship

##### ↳ etc.

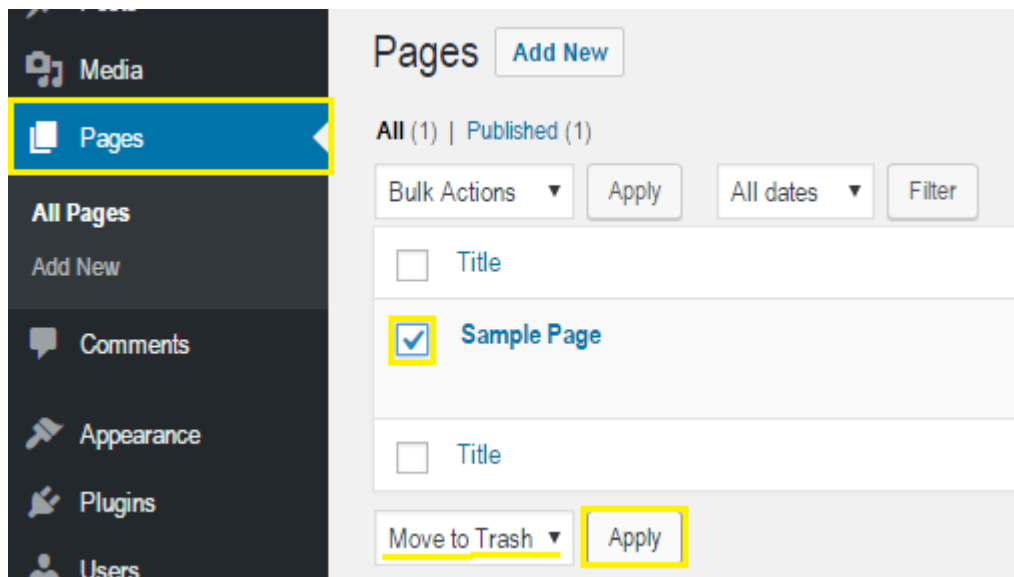
#### ↳ Scholarships for Volunteers

As a result the URL for the page containing, for example, an overview of Reagan Key's scholarship is:

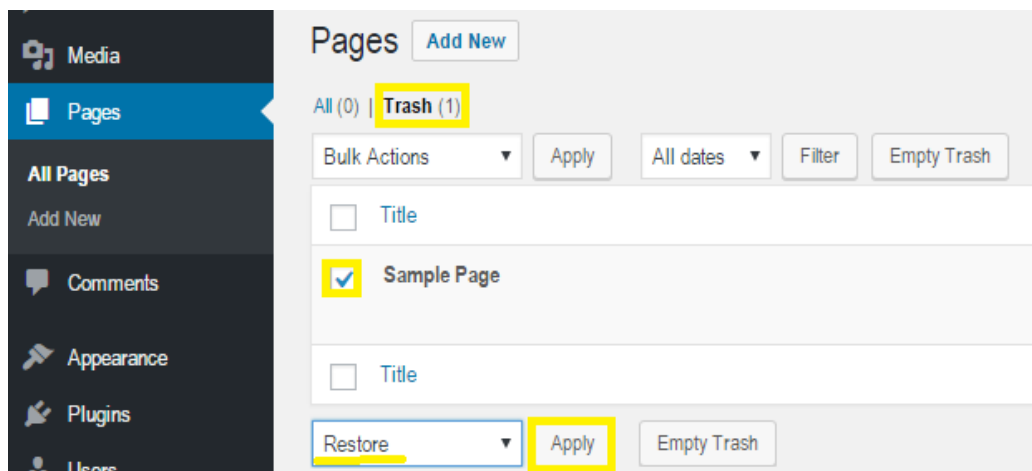
<http://esf.com.au/services/scholarships/recipient-reports/key/>

## Removing/Restoring

Deleting a page can be useful if you decide that a page does not serve the intended purpose or is no longer relevant. In WordPress, this can be accomplished quickly by clicking the **Dashboard** button in the top-left hand corner, then the **Pages** link on the sidebar. A list of the currently published pages will be loaded. Check the boxes of any pages you want to delete, and then change the drop-down beneath or above the list to **Move to Trash**. Click the **Apply** button and your pages will be sent to the trash.



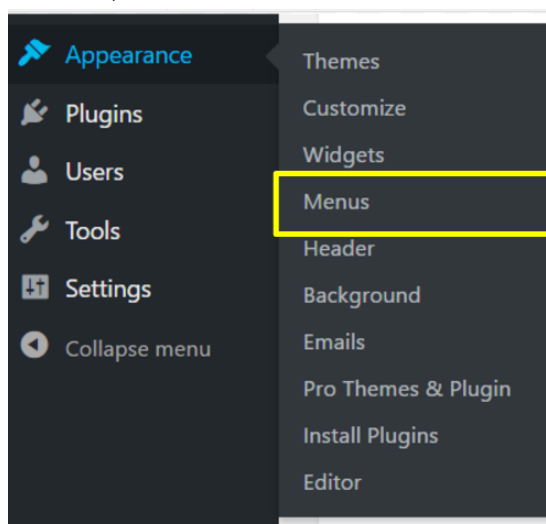
Note that trashed pages can be restored if you should desire. To do this, click the **Trash** button beneath “**Pages**”, and select the deleted page. Use the drop down menu to restore selected pages.



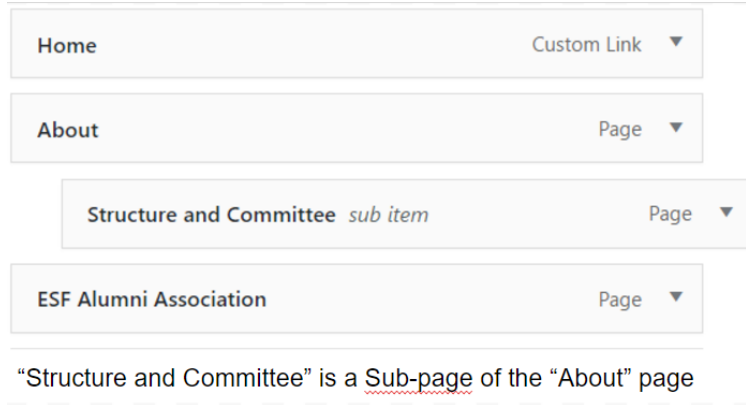
## Menus

In WordPress, ordering pages allows control over the menu bar visible to those using the site itself. Pages should be organised in menus according to the parent-child relationships described above. In addition to a drag-and-drop interface for pages already added to the menu, adding new pages to the menu can be done through the following method:

1. Under the **Appearance** tab, click on the **Menu** Button



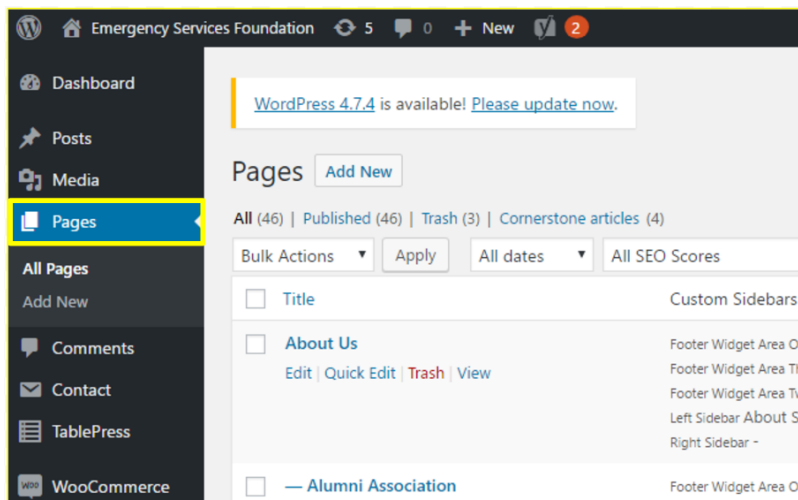
2. Drag the Pages into the desired order. To reflect that a page is a child of another page, or part of a sub-menu, drag it so that it is indented below the main page



Multiple Menus can be made by selecting **create a new menu**. These menus can be inserted as a **Custom Menu** into sidebars and footers, which are described below.

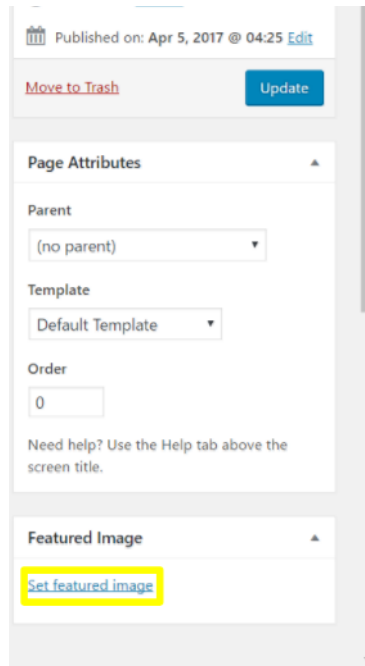
## Adding Photos/Videos

To add media (images, videos, documents, etc.) to WordPress, you must first upload it to your website. To do this, from the dashboard select **Media > Add New**, select **Choose File**, browse your computer and select the desired file(s), then select **Upload**.

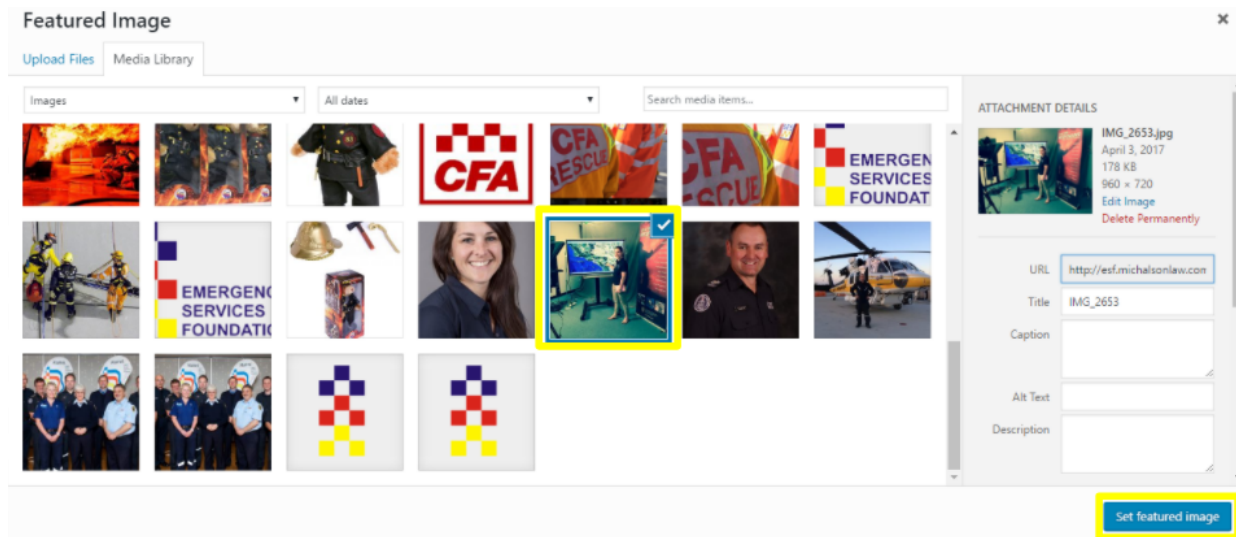


## Setting a Featured Image

If you want a specific image to appear in the thumbnail for a page, you should set that image as the **Featured Image**. To do this, navigate to the editor for the page you want the image to represent, and click **Set Featured Image** from the sidebar on the right hand side of the editor.



WordPress will prompt you to select an image from your media library. If your image has previously been uploaded to your WordPress media library, select it and then click **Set Featured Image** in the lower right hand corner of the pop-up window. Otherwise, click **Add New** and select an image to upload to your WordPress media library.

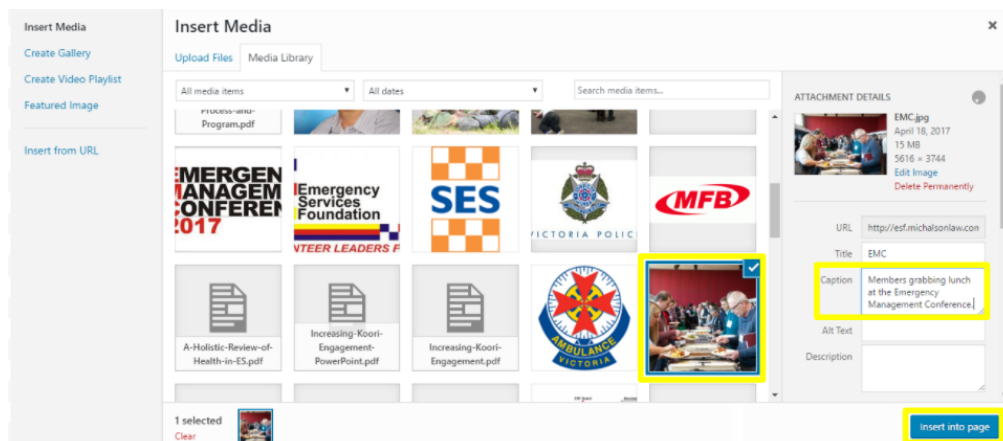


## Inserting an Image into the Content of a Page

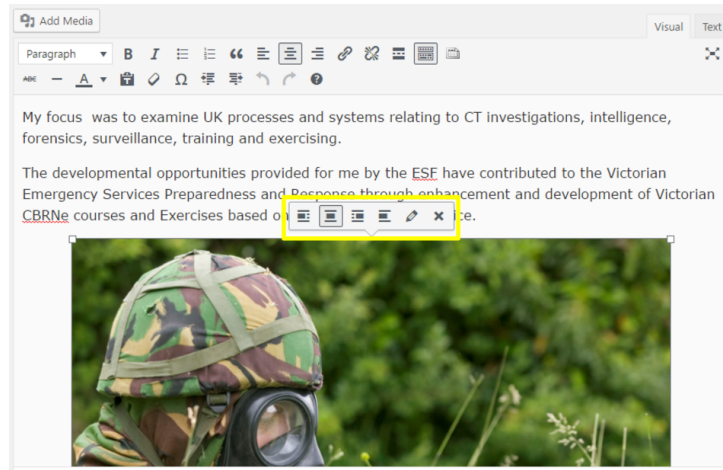
If you want to insert an image into the page itself, click inside the editor where you want the image to appear. Click the **Add Media** button (the plus sign inside of the circle).



Then, select the image you want to insert, optionally fill out any information in the fields (such as caption) on the right side of the window you wish to, and select **Insert into page**.



This may require further formatting, which can be done by clicking the image in the editor and selecting an alignment type from the tool menu that pops up. In addition, you may drag and drop the image. This toolbar also allows you to edit image options, such as title and caption, that were set when it was inserted into the page.



Follow the steps below under **Linking to Other Pages** to bring a user to a specific page when an image clicked.

## Inserting a Gallery

If you want to insert multiple images into a page, you may want to create a gallery. To do this, follow the same steps as for a single image until after you have clicked the **Add Media** button. Then, select **Create Gallery** from the left-hand side of the window. Select all the images you want to include, and then click, **Create a new gallery**.

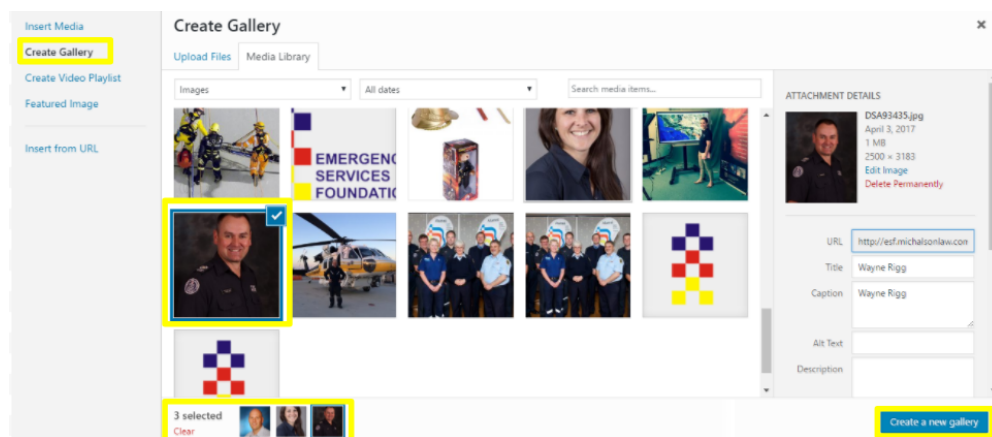
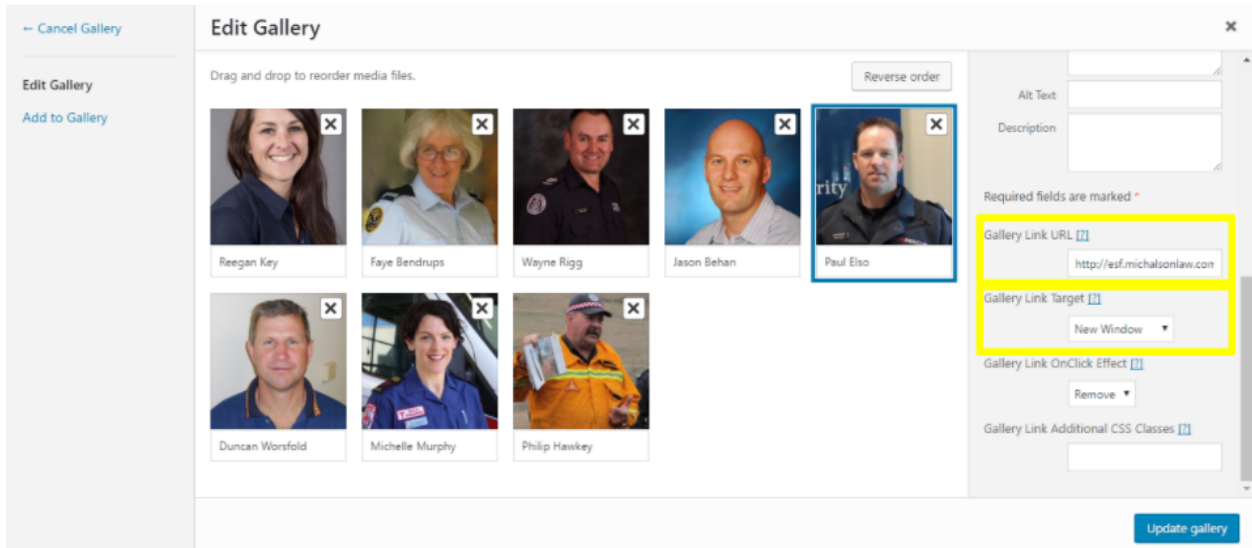


Image options can be set by clicking on each image and filling in the fields on the right, as before, and these as well as the entire gallery can be edited using the same toolbar mentioned above. Important options when making a gallery are **Image size** and **Number of columns**. These options determine the appearance of your gallery. Media File is the recommended setting for the **Link to** option in **Gallery Settings**.

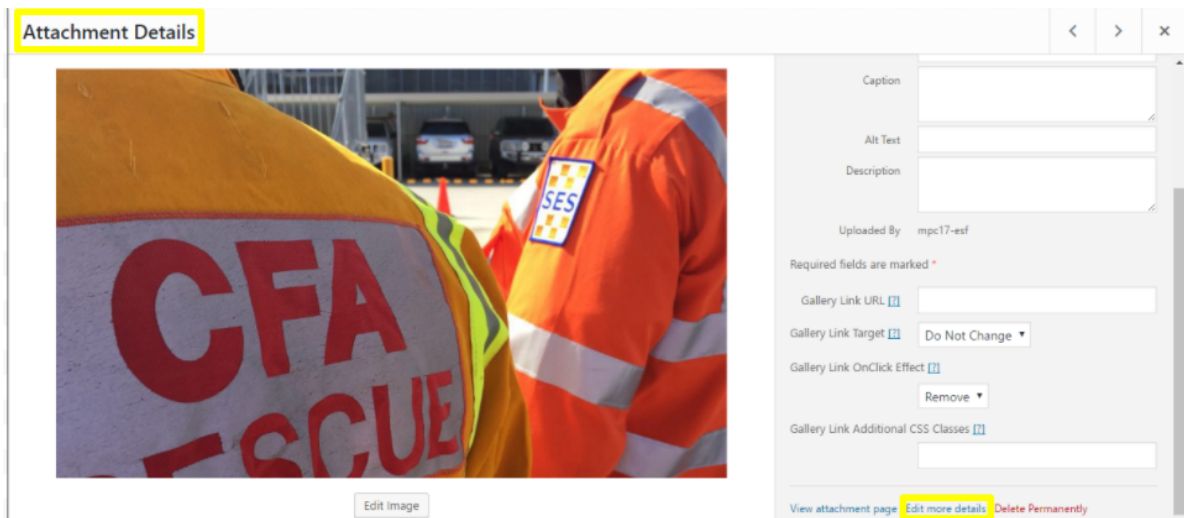
If you wish to link images in a gallery to other pages, then paste the hyperlink into the **Gallery Link URL** box and set the **Gallery Link Target** to **New Window**.



## Inserting/Editing a Slider

The theme used to design the ESF website, Customizr, allows for the use of sliders. Sliders cycle through and prominently display images with text and optionally links on a page, or “slides.”

To create a slider, first upload or select an image from the media library. Selecting an image from the media library will bring up the **Attachment Details** window. Scroll to the bottom of the fields on the right-hand side and click **Edit more details**.





Scroll down to **Slider Options** and click the switch to select **Yes**. Fill out the fields that appear, including **Title text**, **Description Text**, **Button text**, and **Choose a linked page or post or or a Custom link** (**Button text** and link only need to be filled if you want this image in the slider to link to another page). If you are linking to a document or external site, you should select **Yes** for **Open link in a new page/tab**.

Title text (80 char. max length)

Description text (below the title, 250 char. max length)

Title and text color

Button text (80 char. max length)

Choose a linked page or post (among the last 100).




or a custom link (leave this empty if you already selected a page or post above)

Open link in a new page/tab  
 NO

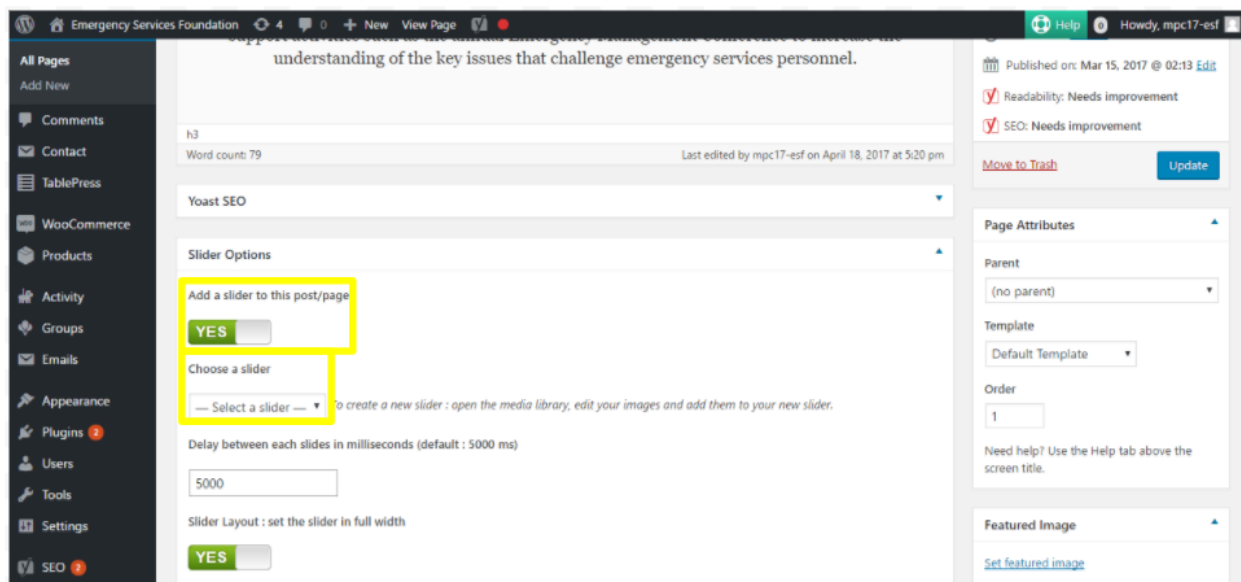
**Choose a slider** from the dropdown menu if you wish to add this image to an existing slider or enter a title for and **Add a slider** if you are creating a new slider. Sliders can be edited later by selecting an image from the media library that is in the desired slider and clicking **Edit more details**, as before. At the bottom of this page, you can switch to the editor for other images in the slider by selecting **Edit this slide**.

Choose a slider

[Delete this slider](#)

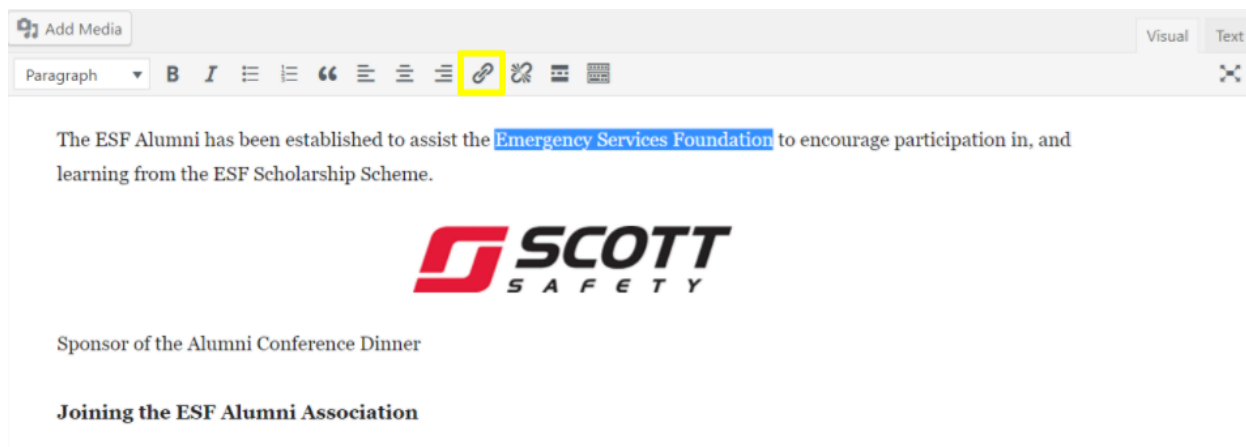
Slide Image	Title	Slide Text	Button Text	Link	Edit
	The ESF Scholarship Scheme	Our scholarship program helps first responders improve the quality of emergency services in Victoria	Learn more	Scholarships	<input type="button" value="Edit this slide"/>
	Building Camaraderie	The Emergency Management Conference and Volunteer Leaders Forum help build relationships between first responders and emergency service agencies	Find Events	Conferences	Current slide
	Meet Ashley, the Fire Services Bear	Our limited edition collector bear allows the ESF to continue to assist emergency service workers and their families, and he makes a great gift too!	Purchase	Ashley – ESF's Collector Bear	<input type="button" value="Edit this slide"/>

To insert a slider into a page, navigate to the editor for the page where you would like to include the slider, scroll down and select **Yes** on the switch for **Add a slider to this post/page** under **Slider Options**. Select the slider from the dropdown menu and edit the other options to fit your preferences.

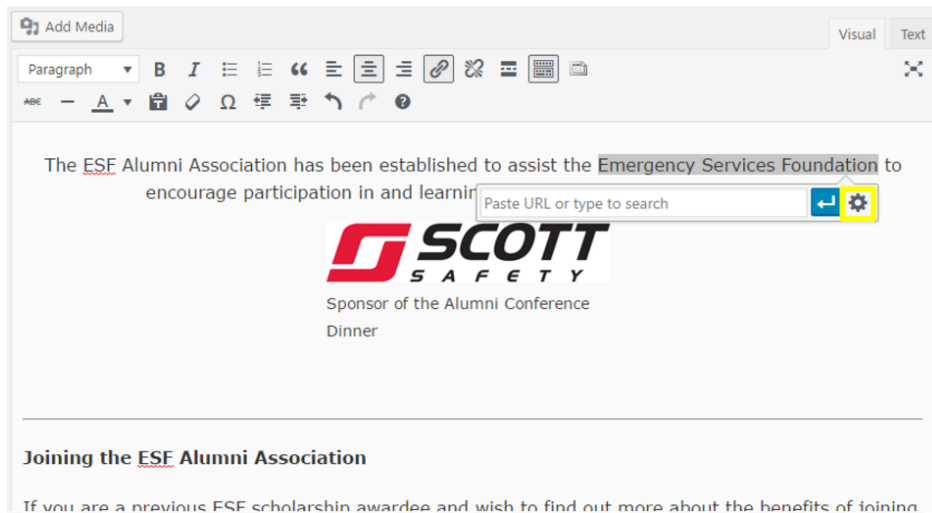


## Linking to Other Pages

To link to other pages, either on your website or on another website, first navigate to the Editor on the page you wish to edit. Next, type the text or insert the image you wish to appear as a link. Highlight the text/image you would like to make a link and click the **Insert/edit link** button.



When you click the **Link** button, a small dropdown will pop up. Clicking the **Gear** will bring up the full link menu.



Type or paste the web address you want to link to in the **URL** box. If you are linking to an external site, it is recommended that you select the **Open link in a new window/tab** box so that traffic is not being steered out of your website. When finished, click the **Add Link** button.

URL  
https://www.wpi.edu

Link Text  
Worcester Polytechnic Institute (WPI)

Open link in a new window/tab

Link to existing content

Search...

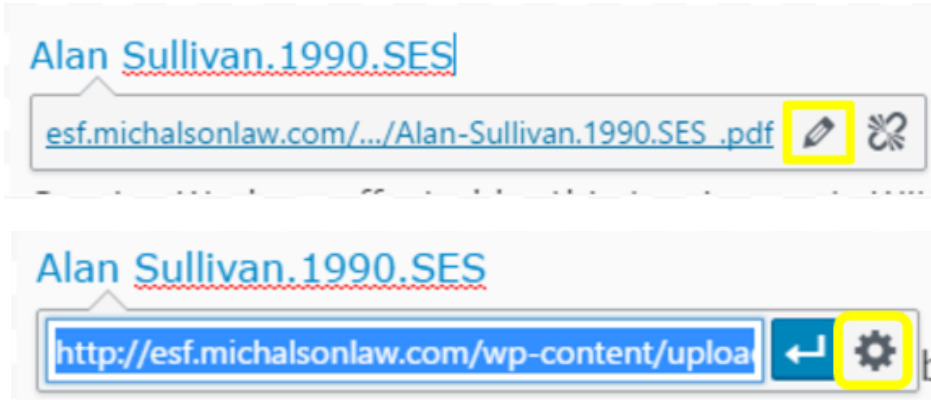
- Bob TESTIMONIAL
- Emergency Services Foundation Projects PAGE
- Emergency Services Foundation Alumni Association PAGE
- Scholarships for Volunteers PAGE
- Scholarship Recipient Reports PAGE

Cancel Add Link

Links may be edited later by using the same **Insert/Edit link** button picture above and may be removed by using the adjacent **Remove link** button.

## Linking to a PDF

If you would like to link to a PDF, first upload the PDF to your media library in the same way you would a photo or video. Add the PDF using the **Add Media** button in the editor, like a photo or video. This will insert the file name as a link to the PDF. You can change the **Link Text** by clicking the link in the editor, clicking **Edit** in the popup toolbar, and clicking **Link options**. Be sure to check, **Open link in new tab** and then click **Update**.



**Insert/edit link** ✕

Enter the destination URL

URL

Link Text

Open link in a new tab

Or link to existing content

Search

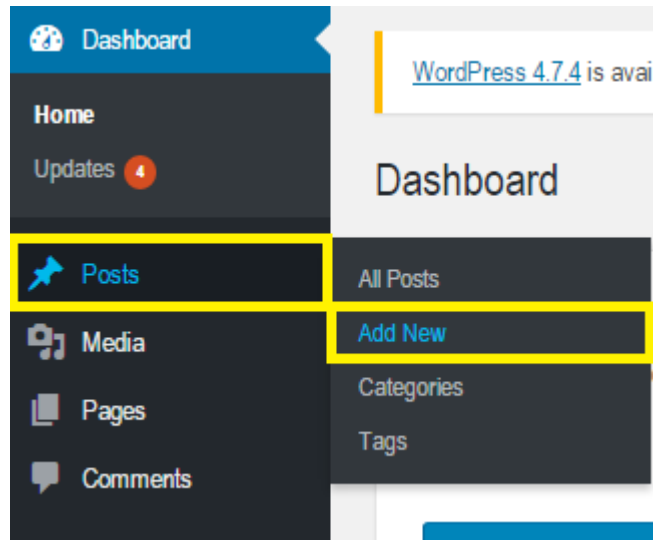
No search term specified. Showing recent items.

Phil Hawkey's Scholarship	PAGE
Michael Campbell's Scholarship	PAGE
Kylie Abraham's Scholarship	PAGE
Andrew McKee's Scholarship	PAGE
Duncan Worsfold's Scholarship	PAGE
Paul Elso's Scholarship	PAGE

## Blog Posts

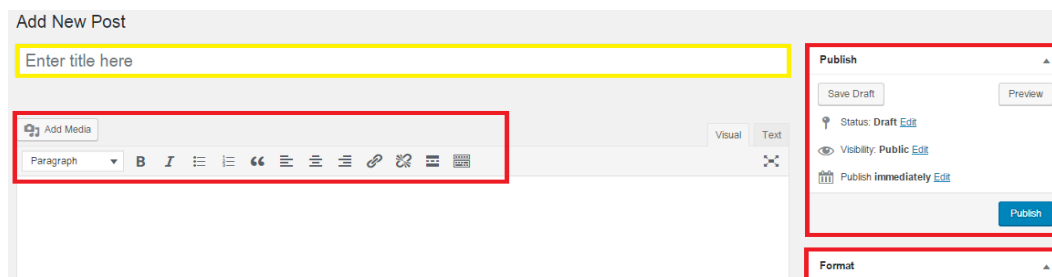
Blog posts allow updates to be shared with users. They should be used to share recent news about the ESF, member organisations, or community members and announcements with the public. They differ from pages in that they will be archived when they are old and all posts are listed on one page of the website. In the case of the ESF website, this page is **News**.

The process of adding/editing a blog post is virtually the same as that for a page on WordPress. To create a new post, navigate to the **Dashboard** page. Next, click on the **Posts > Add New** in the sidebar to go directly to the blog creation screen.



This screen will retain the faded **Enter title here** label that exists on the **Pages** screen. This allows you to label the post with a theme or title message. You can add various forms of media such as pictures and video by clicking the **Add Media** button. Otherwise, all of your text will go into the space beneath said bar.

After the post has been modified as desired, click the **Publish** button on the right hand side of the page. This will publish your post onto your webpage and list the post on the **Posts** page within the **Published** tab. It is also important to note the **Preview** function above the **Publish** button. This allows a preliminary view of how your post will appear on screen before committing to publishing in publicly.

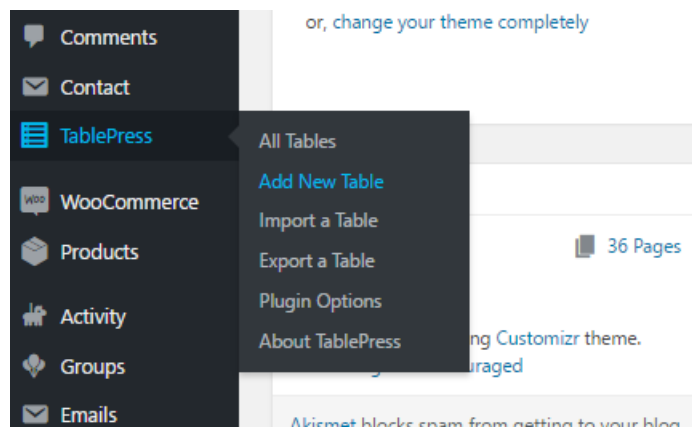


# Tables

Tables are not supported by the base version of WordPress, unless the user has knowledge of the HTML language. However, tables can be a useful tool for communicating information and formatting text. In order to allow for the use of tables, the plugin TablePress was installed on the ESF website and all tables from the previous website were transferred over from HTML to TablePress tables.

## Creating a New Table

To create a new table, navigate to **Tablepress > Add New Table** from the **Dashboard**.



Give your new Table a name and optionally a description, select the number of rows and columns (these can be added or deleted later), then click **Add Table**.

A screenshot of the TablePress 'Add New Table' form. At the top, there are navigation tabs: TablePress, All Tables, Add New (selected), Import, Export, Plugin Options, and About. Below the tabs, there is a brief instruction: 'To add a new table, enter its name, a description (optional), and the number of rows and columns into the form below. You can always change the name, description, and size of your table later.' The form itself is titled 'Add New Table' and contains the following fields: 'Table Name:' with a text input containing 'My Table' and a subtext 'The name or title of your table.'; 'Description (optional):' with a larger text area containing 'Table for learning purposes.' and a subtext 'A description of the contents of your table.'; 'Number of Rows:' with a text input containing '5' and a subtext 'The number of rows in your table.'; and 'Number of Columns:' with a dropdown menu showing '5' and a subtext 'The number of columns in your table.' At the bottom of the form is a blue 'Add Table' button.

Now you can begin filling in the cells in the **Table Content** box. Use the buttons under **Table Manipulation** to make changes to the table. One very useful tool is the **Advanced Editor**, which may be quickly accessed by selecting a cell with **Shift+Click**. This allows for insertion of links and images as well as bold and italics text among other features.

Table Content

	A	B	C	D	E	
1						1
2						2
3						3
4						4
5						5

Table Manipulation

Combine cells:   ?

Selected rows:

Selected columns:

Selected rows:

Selected columns:

Add  row(s)

Add  column(s)

Select the **Table Options** you wish to implement. If you want to make a dynamic table, make sure that “Use DataTables” is selected in the **Features of the DataTables Javascript library** box is checked, then select the features you would like to be applied to the table.

Table Options

Table Head Row:  The first row of the table is the table header.

Table Foot Row:  The last row of the table is the table footer.

Alternating Row Colors:  The background colors of consecutive rows shall alternate.

Row Hover Highlighting:  Highlight a row while the mouse cursor hovers above it by changing its background color.

Print Table Name:  Show the table name  the table.

Print Table Description:  Show the table description  the table.

Extra CSS Classes:

Additional CSS classes for styling purposes can be entered here. This is NOT the place to enter [Custom CSS code!](#)

Features of the DataTables JavaScript library

Use DataTables:  Use the following features of the DataTables JavaScript library with this table:

Sorting:  Enable sorting of the table by the visitor.

Search/Filtering:  Enable the visitor to filter or search the table. Only rows with the search word in them are shown.

Pagination:  Enable pagination of the table (viewing only a certain number of rows at a time) by the visitor.

Show  rows per page.

Pagination Length Change:  Allow the visitor to change the number of rows shown when using pagination.

Info:  Enable the table information display, with information about the currently visible data, like the number of rows.

Horizontal Scrolling:  Enable horizontal scrolling, to make viewing tables with many columns easier.

Custom Commands:

Additional parameters from the [DataTables documentation](#) to be added to the JS call.

Once you are finished, you may wish to see what the table might look like on your website. To do this, select the **Preview** button. Once you are satisfied with your table, select **Save Changes**.

To insert the table into your page, copy the shortcode from the top of this page and paste it into the editor for the page where you would like it to appear.

**Table Information**

Table ID:  Shortcode: `[table id=11 /]`

Table Name:

Description:

Last Modified: April 21, 2017 4:27 pm by mpc17-esf

## Editing a Table

To edit a table, simply navigate to **TablePress > All Tables**, and select the table you wish to edit. From this screen you can also find the shortcode for, copy, export, delete, or preview a table.

The screenshot shows the WordPress dashboard with the TablePress plugin interface. The 'All Tables' tab is active, displaying a list of tables. The table 'Boards & Committees' is highlighted, and its edit options are visible. The table list includes the following data:

ID	Table Name	Description	Author	Last Modified
1	Boards & Committees	List of ESF Members	mpc17-esf	April 20, 2017 2:20 pm
2	Ambulance Victoria	State, Phone, E-mail, and Website for AMBVIC	mpc17-esf	April 19, 2017 4:52 pm
3	Country Fire Authority	State, Phone, E-mail, Website for the CFA	mpc17-esf	April 19, 2017 4:51 pm
4	Metropolitan Fire Brigade	State, Phone, E-mail, and Website for MFB	mpc17-esf	April 19, 2017 5:13 pm
5	Victoria Police	State, Phone, Website for VICPOL	mpc17-esf	April 19, 2017 5:14 pm
6	State Emergency Service	State, Phone, E-mail, and Website for VICSES	mpc17-esf	April 19, 2017 5:11 pm

## Sidebars and Footers

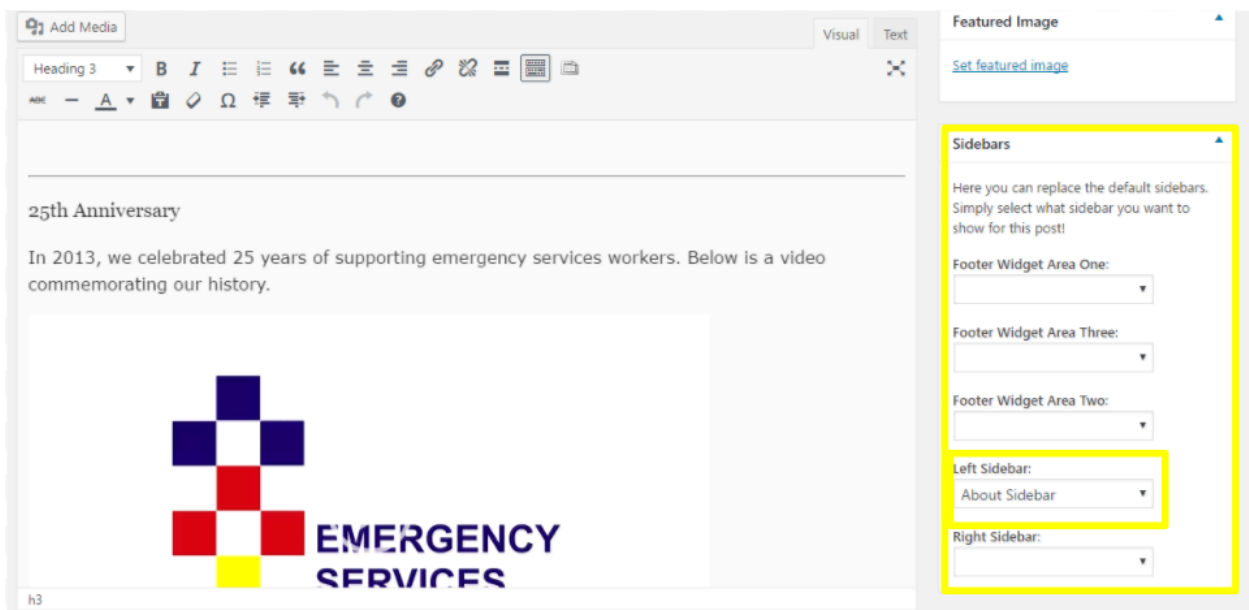
Many features can be implemented on WordPress through tools called “Widgets.” Widgets can appear in the Sidebars or Footers of almost any page. To select the default layout (how many which sidebars appear on each page) go to the **Customizer**, and select **Content: home, posts,...** then **Pages and Posts Layout** for normal pages and posts or **Front Page** for your frontpage. Among the options, select how you would like the pages to appear. A great degree of customization of sidebars and footers has been afforded to the ESF website thanks to the use of the **Custom Sidebars** plugin.



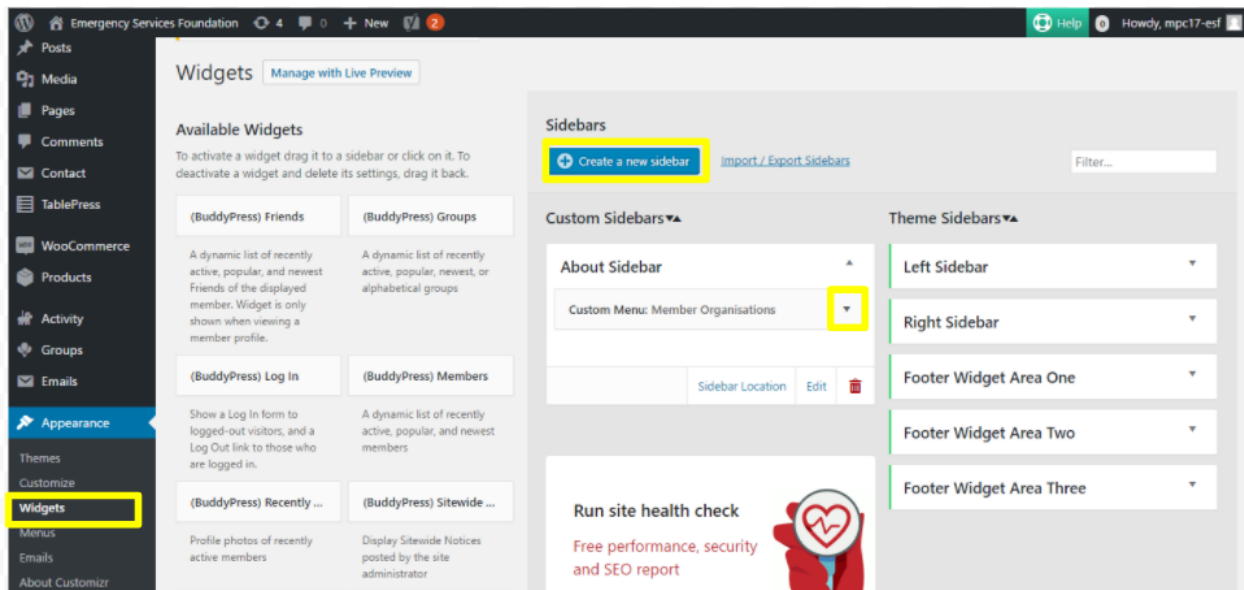
To change the layout of an individual page, navigate to that page in the editor, and select the layout you would like from the **Layout Options** on the right hand side of the screen.



The default sidebars and footers are the **Left Sidebar** in the Left Sidebar, **Right Sidebar** in the Right Sidebar, **Footer One** in Footer Widget Area One, **Footer Two** in Footer Widget Area Two, and **Footer Three** in Footer Widget Area Three. You can change which sidebars and footer appear in these spaces, however, using the **Sidebars** box in the editor. For example, below the custom **About Sidebar** replaces the default **Left Sidebar**.

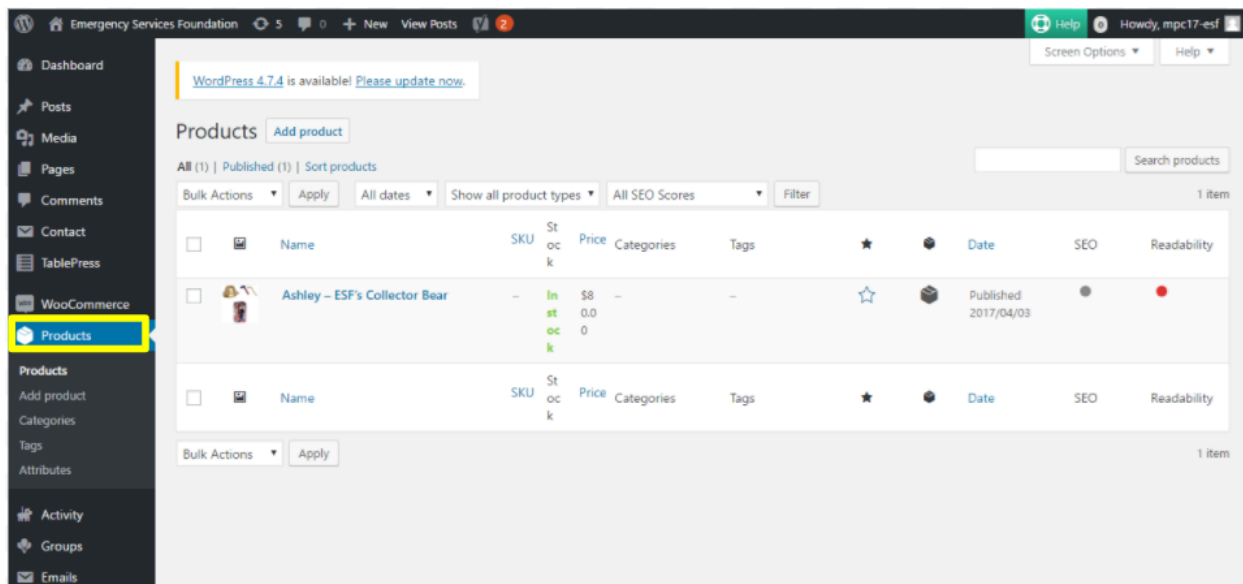


Sidebars and footers can be customized and created by navigating to **Appearance > Widgets** and dragging and dropping widgets into the desired sidebar or footer. Custom sidebars can also be created here and additional widgets may be used by installing plugins. Make sure to fill out the widget options when inserting a widget into a sidebar by clicking on the down arrow next to the widget name.

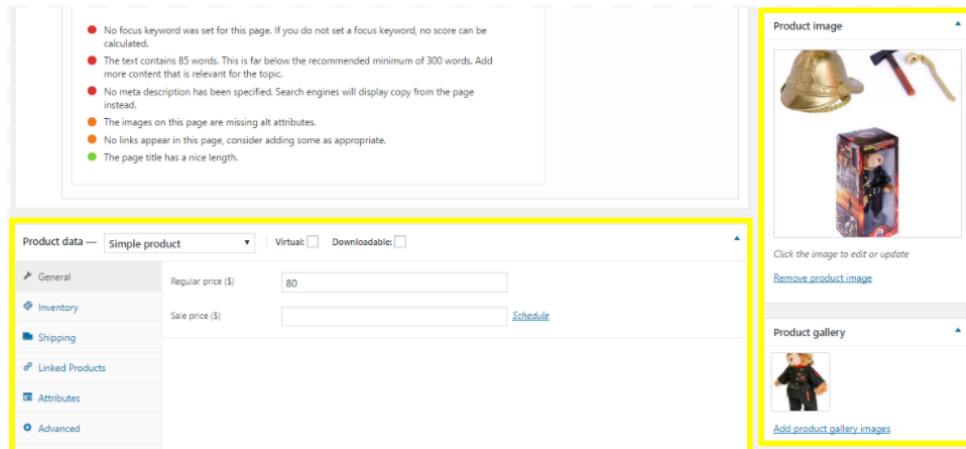


## Shop and Products

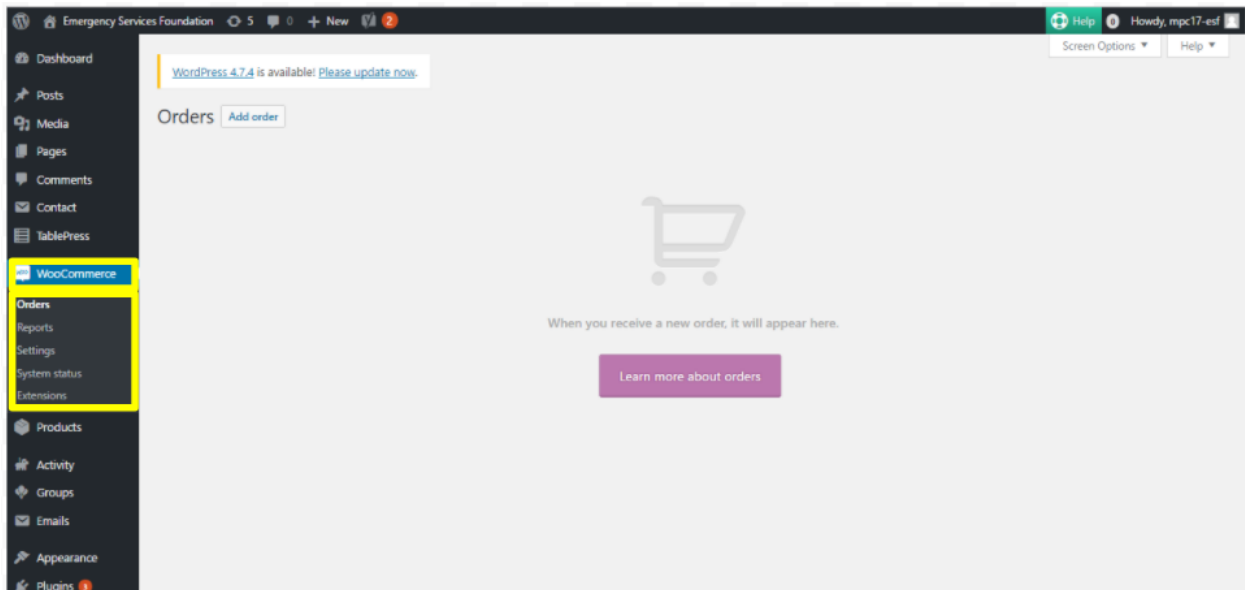
The WooCommerce plugin was installed on the ESF website to allow the ESF to sell Ashley Bears. In the future, the ESF may wish to remove the Ashley Bear from the website or add other fundraising products. WooCommerce automatically creates a **Shop** page which displays all **Products**. This page can be linked and added to menus just like any other page. To manage, add, and delete products, navigate to **Products** from the Dashboard.



Products are listed in the same way that pages and posts are. They can be deleted and edited the same way as pages. The only major difference is that when creating a product, you have to fill out information about the product in the editor under **Product Data**. This includes price, shipping information, and inventory. You can also set a product image and gallery images for a product.



A history of orders and other details and settings are available by pressing the **WooCommerce** button on the Dashboard menu.



## 2. Social Media Maintenance

Social media is meant to be easy to use and help connect people. Keeping with this theme, the guidelines provided below for high quality and effective posting on Facebook, Twitter, and Instagram are kept simple and concise.

### General Tips

Almost all content you generate should be available on your website. In addition, particularly interesting or promotional (for the ESF or another organisation) content should also be shared on social media.

- Videos are a valuable source of content, often times catching and retaining the attention of viewers. This is true if the video is clear, audible, and conveys an interesting perspective or event.
- Photos should be the highest possible resolution for clarity.
- Events should be posted onto both the website and social media accounts, while linking the post on social media to the relevant page of your website. This will encourage cross-traffic between social media and your website.
- An effective text -based post contains a message or relevant reasoning but also provides useful insight. Varying length of posts and their subject material is essential to keep interest. For example, a clear and concise post could be the primary post template, and a longer, well-written post on a topic of particular importance could break up this routine and attract attention.
- Schedule posts ahead of time to make social media maintenance less time consuming. The service **Hootsuite** is recommended for this.
- **Communicate** with users who comment on social media posts. Showing that a human exists behind the post and cares about their content avoids the account feeling mechanized. This type of active conversation-like role is how an effective nonprofit builds a supportive base.
- Make note of which posts get liked and share most, and increase posts of a similar type

### Facebook

- **Be Concise.** Keep posts under 250 characters, and if possible, write an even shorter post, less than 80 characters. But don't lose sight of the message being conveyed.
- **Upload Photos**, but remember to follow your organization's **posting** rules. Remember that sometimes, a cool picture you took may put someone's job at risk
- Thursday and Friday have higher engagement
- If you'd like comments on a post, ask a question. Posts with the words **Should, Would, Which,** and **Who** have the highest engagement rates
- Use 1 or 2 hashtags to help expand your post's reach

- Videos are great, but if you're going to post a video, make sure it can be viewed with the sound off too
- Encourage people to **Like** and **Share** your content

## Twitter

- **Keep it short** and focus only one idea per tweet
- Include pictures and videos to draw more attention to your tweet
- **Use Hashtags** relating to popular events that you can link to that also fit your post's content
- Ask and answer questions to increase engagement
- Mix up tweets between promoting the ESF and sharing interesting content
- Encourage scholarship awardees and other organisation members to tweet to **@ESFAlumni**

## Instagram

- As with Twitter and Facebook, **use hashtags**
- Like and share others' posts
- **Share consistently**, but ensure the quality of all posts
- **Post live updates** from events
- Invite Facebook friends to follow the ESF Instagram page
- Post both photos and videos

## 3. Content Generation for Website and Social Media

Content generation is the backbone of a strong social media presence and relevant website. Frequent posting to social media and website often attracts new users.

### Updates

It is recommended that the ESF post about an link to articles about member organisations and heroic deeds on the ESF website. As posts, this content will show up on the **News** page. Posts can also be used to inform community members about events organised by the ESF or member organisations. Short summaries and links to these posts with a relevant image can double as content for social media.

### Scholarship & Awardees

The primary type of content generated by the ESF pertains to scholarships and awardees. Posts to social media can include updates on awardees scholarship trips as well as announcements about scholarship application deadlines and who was awarded the scholarship each year. Ask awardees to keep a log of their activities while away for their own records. Request that the post on social media and tag the ESF's accounts on each platform.

When scholarships are completed, awardees should provide the ESF with images (including a headshot) and a 250 word overview of their scholarship. These overviews can then be added as pages linked from the gallery on the **Recipient Reports** page. If the gallery seems to be too large, you can remove old overviews from the gallery.

In addition, awardees should be asked to participate in a video testimonial for promotional purposes for the ESF. The following script was used to guide these testimonials and may be used and edited by the ESF in the future:

Please introduce yourself by stating your name and position.

Tell us about your day-to-day duties.

Are there any particularly important experiences you have had in your career that you would like to share?

How did you hear about the ESF and their scholarships?

What was the application process like?

Wad did you do with your scholarship? Where did you go? What did you research?

How has completing an ESF scholarship affected your career?

How has your research impacted emergency services in general in Victoria?

Do you have any final remarks about the ESF or life as an emergency service worker?

A tripod and a directional or lapel microphone should be used for recording regardless of device (mobile phone, camera, or camcorder). The resulting videos will require editing using a software such as iMovie, Windows Movie Maker, Final Cut Pro, or Camtasia. It is recommended that someone in the ESF becomes the designated video creator and familiarizes his/herself with the necessary equipment and software or outside help should be recruited.

Short clips of these videos may be shared on social media. Complete yet edited and polished videos can appear on the ESF website under Scholarship Recipient Reports, in posts, or in a different or new page. You should also send videos to everyone who appears in them before posting for approval.

## Conclusion and Further Recommendations

While this guide was made as comprehensive as possible, it still could not possibly cover all information that the ESF might desire. Should further information about WordPress features or plugins be desired, the following or a similar query should be entered into a search engine such as Google:

*“\*feature or plugin name\* documentation”*

Reliable sources of information include the WordPress Codex (<https://codex.wordpress.org/>) and the documentation sites for plugins, often available or linked at a page with a URL similar to

[“https://en-au.wordpress.org/plugins/wordfence/”](https://en-au.wordpress.org/plugins/wordfence/)

Where “wordfence” would be replaced by the plugin name.

That said, forums can also prove to be a useful source of information, as they often include contributions from users who have run into issues or asked questions similar to your own and often experienced users respond with solutions.

In the case of a large-scale disaster, it is recommended that the ESF update the donation page to address the disaster and consequences and describe how donations will help. After about a month (time may vary depending on scale of disaster), the donation page should be reverted back to its usual form.

Finally, remember to frequently backup your website. This can be done using a variety of plugins. The currently installed backup plugin is UpdraftPlus, which will have to be manually used to update the ESF website. This can be done by navigating to the **UpdraftPlus** page from the Dashboard. Automatic scheduled backups can be used if the ESF decides to purchase the Premium version of the plugin.

Good luck to the Emergency Services Foundation in all future endeavours, both online and offline!