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Managing a Software Project for Disaster Recovery

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Introduction

Halo Emergency Logistical Provisions (H.E.L.P.) has been designed to provide communications around the world in case communications systems in an area is no longer available, this could be due to an earthquake, tsunami etc. It is used to allow rescue workers, medical professionals, victims themselves and many more, to communicate with one another so that there is more organisation in times of an emergency. Also satellite communication i.e. voice, video and data will get sent to a command and control centre which is located in the UK and contains many professionally trained logistical coordination staff who will analyse a situation and communicate with the local government and aid agencies in the affected area.

Within this report a risk assessment has been done to find all the risks of the project and solutions of the risks has also been looked at. Sustainability issues has also been looked at as well as the ethical and legal issues which could arise. Also the quality assurance issues have also been looked at.

Risk management

	Low Little to no effect on event	Medium Effects are felt, however no critical outcome	High Serious impact to the course of action and outcome	Extreme Could result in disaster
Likelihood	Severity			
Improbable Risk is unlikely to occur		1. The website could slow down if loads of people use it (if a disaster happened in a very populated area).	2. The H.E.L.P device could break down.	3. Website could go down. 4. The website could get hacked, information could then get stolen or website could get taken down.
Possible Risk will likely occur		5. Website may not be compatible on unpopular web browsers or devices.	6. Some functions may not work on release (buttons, accounts, creating posts etc). 7. Website could get outdated.	
Probable Risk will occur	8. People could create fake missing people reports. 9. People could comment false information. 10. People could comment mean comments.			

1. If the website starts to slow down then users will find it frustrating going through the various reports and could cause them to leave the website all together. This would only mainly happen if there is a disaster within a highly populated area as many people would then try to use the website at the same time. To prevent this a powerful web server will be required which will be able to handle the strain of many users on the website all creating posts at the same time.
2. If the H.E.L.P device goes down then all the people within the local area of the disaster will be unable to connect to the website, this means that people will not be able to gain access to the website. If people are unable to connect to the website then they will not be able to view posts or comment on posts making their family uneasy. If the H.E.L.P device goes down then another will be required to bring in so everyone will be able to connect to the website and contact their family.
3. If the website goes down then no users will be able to gain access to the website, this means that no one will be able to see posts, create posts or even log in. The website could go down because of a plugin error or a server/hosting provider error and many other reasons. To fix this depends on the reason for the website going down for example if it is because of the server/hosting provider then maybe a better hosting plan is required to handle the amount of traffic on the website or if it was because of a plug-in then only use well known plug-ins which are known to be stable.
4. If the website gets hacked then it could cause massive problems, this is because the hacker might steal people's private information or could even shut down the website. There are many ways to prevent hackers some of these include [1]:
 - Keep software up to date
 - Protect against XSS attacks
 - Avoid file uploads
 - Use HTTPS
 - Get website security tools
5. As there is a massive range of different devices and browsers it is hard to create a website which will be compatible with all the devices. However if a user is unable to use the website then they might get frustrated and will decrease the customer base of the website. This can be easily fixed by releasing frequent updates so that the website is compatible with the different devices and browsers as users tell us what the website is not compatible with.
6. Some functions may not work on release some of these functions may include as little as a button, or could even be the commenting function on the website. If some of the functions are not working then users will get frustrated and may cause them to leave the website. This can be fixed with going through various tests for the website to make sure everything is working correctly, also could get some testers to test the website to make sure that everything is working correctly.
7. If the website gets outdated then it might cause users to find the website unprofessional and may cause them to leave the page just due to the visual of the website. According to Olivia Allen *"Website redesigns are usually completed every 2-*

3 years" [2], this means that the website will need the interface modernised every couple of years.

8. Like many website there are always going to be trolls which will use the website for bad, the first being users create fake missing people reports, if people create fake missing people reports then it is less likely for people to see important posts. This can be fixed through multiple administrator's viewing the posts.
9. The next being that trolls can comment false information. This means for example people commenting they have seen the person even if they haven't. This can also be fixed through multiple administrator's viewing the posts.
10. The last being people commenting mean comments. This can also be fixed through multiple administrator's viewing the posts.

Sustainability Issues

Social

The social aspect of the project is positive, this is because the project is to help people. This is because the main goal of the project is to help family and friends create lost and found people reports. This means that it gives the community an ease of mind as it gives people a place to go for help if one of their friends or family have been the area of a natural disaster.

Environment

Open source software

Open source software is software with the source code being accessible to users. This means that users can inspect, modify and enhance the source code.

When computers get old and unusable then they are thrown away, this takes a massive toll on the environment as there computers often end up in landfills causing serious damage. According to a Madhukara Putty *"Humans generated a staggering 44.7 million metric tonnes of electronic waste (e-waste) in 2016"* [3]. As computers get older they get outdated, this includes the hardware as well as the software. In many cases though the hardware is still usable however the software which is supported on these older devices are no longer supported by the creators (MS Windows XP), this makes these software very unstable and unreliable. This applies for most computers which were purchased 6-10 years ago. With open source software the software can be downloaded on these older devices and run whilst still being fully functional, an example of this includes open source Linux operating system.

With this in mind it is important that the website should be able to run on these open source software like Linux operating system, this is because people will then be able to run the website without having to upgrade their hardware which helps the environment.

Cloud computing

Cloud computing is the delivery of computing services such as storage, databases, software and more all through the cloud (internet). For example before people would need to download the software onto their physical computer however with cloud computing it allows the people to access the software over the internet.

When software is downloaded onto a server or a computer then it requires an increase in power to download the software. This is not good for the environment as for example a piece of software is required on 100 computers then it is going to take a considerable amount of power which is bad for the environment. With the use of cloud computing then the server capacity can scale up and down as the power is needed, this means that only the energy which is required is used and it not leave an oversized carbon footprint. Also, the download would only be required in one location meaning that it saves energy.

With this in mind it is going to be important that the team should be using cloud computing moving forward for the development and upkeep of the website, this is because it will save energy helping the environment.

Ethical and Legal Issues

British Computer Society (BCS) Code of Conduct

The code of conduct set out the standards which are required by the BCS which applies to every member. One of the first standards being to *"promote equal access to the benefits of IT and seek to promote the inclusion of all sectors in society wherever opportunities arise."* [4]. This means that everyone should be allowed to have an equal opportunity when it comes to the IT sector, meaning that no matter the ability of the user they should still have an equal chance.

Another standard being *"conduct your professional activities without discrimination"* [4]. This means that no matter the sex, nationality, religion, age or even disability then these people should still have an the same opportunities.

BCS Digital Brexit

The BCS digital Brexit looks at how the UK want to advance the IT sector so that they are the digital world leader. It focuses on 4 main points these being data-driven, digitally-capable, secure and connected. Within the digital Brexit it talks about how security is going to be a big focus moving forward in the future, this means that the security with the website is required to follow the digital Brexit. Security strategy will be required and information security is going to need to be a focus on development.

Also, digital Brexit further discusses how the UK can become the leader and innovator in data protection with the UK investing in data frameworks, meaning that data protection will need to be a big priority.

Web Accessibility Initiative (WAI)

The WAI is used to try and increase the accessibility of the internet for people with disabilities. This is because people with disabilities may find it hard when using the internet. If websites are badly designed and the accessibility issues are not thought through then it can cause barriers for people and meaning that they would not be able to use the website. Some WAI points which focus on increasing the accessibility include:

- Clear navigation
- Providing Alternatives for the visual content
- Ensuring that the content is easy to understand
- Easy to read content

Copyright

Copyright is the legal protection for the original work of a creator, this can include literary, written, dramatic, artistic, musical. This means that all work used within the website must not be stolen from anywhere else and must be original. It is also important that the design of the website provides the viewer with a unique user experience.

Quality Assurance Issues

The quality assurance has been put in place to make sure the quality of the final product is at a good standard. It is a way to prevent mistakes and defects which could arise in the final product and attempt to avoid any problems for the customers.

Pages/Content

The first way to make sure that the quality of the final website is a good standard is that a thorough check is going to take place on each individual page. Every page will be looked at with a critical eye to make sure that to make sure that all the content can be seen, there are no error within the content and also to make sure that the layout looks professional.

Spelling Mistakes

This is very similar to the content, as a thorough check should be taken with all the text to make sure that there are no spelling errors. If there are spelling mistakes then the customers may not know what it is meant to say or the website may come across as cheap and unprofessional.

Compatibility

As the website is required to run on all different kinds of devices and browsers it is important to check to see it is compatible with them all and still looks professional whilst still being completely functional. The website will be tested on all the popular devices (iPad, iPhones, Androids, laptops and computer monitors) and the most popular browsers (Chrome, Firefox, Safari and Internet Explorer).

User Experience

The user experience for the final website must completely user-friendly and fully functional. What is meant by this is that the website needs to be easy to use for people no matter how advance they are with IT. Everything within the website should also work for example, the create post should work, creating an account should work and all the other functions within the website should be working correctly.

Website Speed and Uptime

It is going to be very important for the speed of the website to be quick. According to a report written by Lauren Hockenson she states that “anything lasting over a second is jarring enough to break a user’s flow” [5]. However, in another report written by Amy Gesenhues states that any website which takes less than 4 seconds is a good standard [6]. This will be good target as it doesn’t make the users wait a long time to load up the website.

References

- [1] T. C. T. P. Ruald Gerber, "9 security tips to protect your website from hackers," 03 May 2018. [Online]. Available: <https://www.creativebloq.com/web-design/website-security-tips-protect-your-site-7122853>. [Accessed 15 01 2019].
- [2] O. Allen, "6 Risks You’re Taking with Traditional Web Design," 26 October 2015. [Online]. Available: <https://www.bluleadz.com/blog/risks-you-re-taking-with-traditional-web-design>. [Accessed 12 01 2019].
- [3] M. Putty, "How much electronic waste do we generate as a species?," 11 01 2018. [Online]. Available: <https://www.open.edu/openlearn/science-maths-technology/engineering-technology/how-much-electronic-waste-do-we-generate-species>. [Accessed 16 01 2019].
- [4] "BCS Code of Conduct," [Online]. Available: <https://www.bcs.org/upload/pdf/conduct.pdf>. [Accessed 15 01 2019].
- [5] L. Hockenson, "Two second mobile time? Google says it’s vital to success," 09 08 2013. [Online]. Available: <https://gigaom.com/2013/08/09/two-second-mobile-time-google-says-its-vital-to-success/>. [Accessed 16 01 2019].
- [6] A. Gesenhues, "Study: Load Times For 69% Of Responsive Design Mobile Sites Deemed “Unacceptable”," 22 04 2014. [Online]. Available: <https://marketingland.com/study-load-time-69-mobile-sites-deemed-unacceptable-81126>. [Accessed 16 01 2019].
- [7] "Making the Web Accessible," [Online]. Available: <https://www.w3.org/WAI/>. [Accessed 13 01 2019].
- [8] K. Helgesen, "QUALITY ASSURANCE BEST PRACTICES FOR LAUNCHING A WEBSITE," 30 11 2013. [Online]. Available: <https://www.launchdigitalmarketing.com/quality-assurance-best-practices-website-launch/>. [Accessed 16 01 2019].
- [9] "8 Crucial Website Quality Assurance Factors," 22 08 2016. [Online]. Available: <https://monsido.com/8-crucial-website-quality-assurance-factors-and-how-to-test-for-them>. [Accessed 01 16 2019].

FINAL GRADE

64/100

GENERAL COMMENTS

Instructor

Risk Management: A Risk Evaluation Matrix presented and a set of risks discussed with suitable measures. This discussion could have included the priority of the risks and which measures are most important.

Sustainability Issues: First, Second and Third Order Impacts are not included but some good and referenced advice is included.

Ethical and Legal Issues: BCS codes of conduct points are included. The impact of Brexit, copyright and WAI are considered with advice given, but not the GDPR.

Quality: Some general points made here, specific quality metrics would be an improvement.

Overall a good and well presented report. I'd challenge you to include more references and refer closely to the assignment brief to include all required content.

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