CHAPTER I

INTRODUCTION

Time and money are usually at risk when it comes to deciding on putting up a website for a lot of organizations around the world, including non-government organizations (NGO) based in high-income economies. Even local associations in low-income countries can benefit from having a website. It contributes to making one's organization look more professional when established to accommodate users especially partners and donors, providing them relevant information. It serves as a medium to reach out to the target audience which can be useful for communication. It provides users with their up-to-date contact details and address. More robust websites feature information about the organization, an overview of the projects they run, updates, reports, staff bios, and may be able to gather donations. One of its advantages is when a project audience can engage through the internet. The increasing legitimacy of an organization with a website can reflect positively on it (Brack, 2014).

The use of the internet by NGO depict the flexibility of both entities. They have an association online for various reasons such as build awareness, reduce costs, raise funds, manage and disseminate information, and communicate with personnel. In general, NGO use the internet for information collation on their activities, for networking, for collaboration and partnerships, and for participation and exchange. They have both put up information for others to use, as well as access the information available on the internet. They also use the internet for networking of their advocacy, awareness building, consultancy, education, identifying resources, sensitization, impact analysis, knowledge creation, news, mutual support, and events information, project support, research, and training courses. The internet provides the standard platform for intensive collaboration and connections between organizations. It is only with practical communication and distribution of their activities and services that they can reach out to their target audience. Using the internet is efficient (Srinivas, 2015).

The team developed an application named, ASEAN Aid Map. This supports the objectives of the NGO in the Association of Southeast Asian Nations (ASEAN), which is an economic cooperation and integration with a preferential trading arrangement and mainly foster regional peace, security, and industrial cooperation (Chia, 2013), with regards to their projects. The ASEAN Aid Map is a web-based application that improves the promotion of the prepared and approved projects of NGO in different ASEAN countries. The application aids in strengthening the connection between ASEAN countries in fostering community progress. Through this, organizations gain connections and collaborators. The application helps in the interaction of various NGO for a common goal. The application is intended for different ASEAN NGO and also for the general public. This application is developed using a JavaScript software stack called MEAN Stack. This makes use of MongoDB as the database platform, Express as the web server framework, AngularJS as the front-end web client framework, and Node.js as the server platform. The tool helps in the connection of various modules in the application. It supports the developer in the management and integration of models and functionalities of the application to operate accordingly. With the use of this software stack, the application would achieve its main purpose which is project promotion.

1. Purpose

The team developed the ASEAN Aid Map, a web application which aims to help various NGO in ASEAN, and also informs about the projects that they conduct through mapping. The following are the purposes of the team in developing this application:

1. To Improve Information Dissemination of Different NGO Projects

In the profile of the organizations are the lists of their projects (ongoing or completed). It provides a project profile which contains details about the projects like description, timeline, budget, project collaborators, sector focus, and contact information. These contents are available to the public, and to other users of the application. It presents the photos on the page of the project. These contents are included in the profile which helps users of the application to have a glimpse of the organization and its project purpose.

1. To Strengthen the Linkage Between the NGO of Different ASEAN countries

Non-government organizations (NGO) are independent associations which offer wide-ranging assistance that includes training on governance and financial management, on entrepreneurship and livelihood, to the implementation of community development initiatives that ensure food security and environmental sustainability among others (Le Luong Minh, 2015). Through the features of the application like messaging, project collaboration, and connection, different NGO communicate and inquire with ease about distinct projects, which result in better association and service to the community.

1. To Enhance ASEAN NGO Way of Promoting Their Projects

The project promotion management feature of the application enables the NGO to organize, document, and keep track of their ongoing projects properly. The application also has another promoting feature called suggestion, which makes use of the collaborative filtering concept wherein NGO partners and non-partners receive recommendations on projects similar to other organizations. Once the users of the application log-in again to their accounts, the suggestions are based already on their frequent encountered and imparted projects. The application also sends to the connections of NGO a notification about their newly projects whenever they create a new one.

1. To Help Gain Collaborators for Their Projects

In hopes of attracting potential people that facilitate the ASEAN NGO, the ASEAN Aid Map shows details about the projects that they handle. The connection feature of the application supports in gaining project collaborators. If the NGO establish connections, they receive notifications about the projects of each other. Another feature of the ASEAN Aid Map is the suggestion which recommends the projects to other NGO. The basis for recommendations are on their similarity in sector focus, and location, and also if the two NGO already have connections.

1. Technical Review of Related Systems

Several NGO are collaborating with each other to provide a better project and service to the people (Aniekwe et al., 2012). With this opportunity, some software was created to give graphical information to those projects. This section discusses the comparison of the developed system with other existing systems to give a better understanding to the advantages and similarities of the particular systems. Table 1 shows the review of other applications related to ASEAN Aid Map.

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| --- | --- | --- | --- | --- | --- |
| Application  Criteria | NGO Aid Map | AidData 3.0 | Direct Relief Aid Map | Haiti Aid Map | ASEAN Aid Map |
| Updating Project Details | Developers only | Developers Only | Developers Only | Developers Only | NGO users |
| NGO Profile Content | Background Only | Background Only | Background Only | Background Only | Background, Portfolio, Awards, Partners |
| Media Section in Project Profile | Text Information Only | Text Information Only | Photos Only | Text Information Only | Multimedia |
| Project Collaboration medium | Application through Email | Application through Email | Application through Email | Application through Email | Application and Invitation for collaboration |
| Inquiry and Communication tools | Downloadable Report and Email Contact | Email Contact | Email Contact | Downloadable report and email contact | Private messaging, Group messaging, Project Info Report |
| Project Collaboration Suggestions and Notifications | Organization Suggestion | None | None | Organization Suggestion | Provides suggestions based on factors |

Table 1. Review of Related Applications of ASEAN Aid Map.

1. Updating Project Details

Project editing is one of the features that makes ASEAN Aid Map advantageous compared to other applications that handle NGO collaboration. It allows the organization to monitor and edit their projects like adjusting the timeframe, budget, and status. It also allows them to give other NGO more detailed information of how their projects are going. Other related applications only display the description of the projects but does not allow the organization to edit them.

1. NGO Profile Content

ASEAN Aid Map provides NGO their profile area where they edit their information and display their achievements as well as their portfolios of projects, ongoing projects, and connections. It shows the profiles in detailed format. The NGO Aid Map only provides the organizational background in the profile of the organization. Other related applications have NGO profiling but only provides a glimpse description about them which is a disadvantage at their part because NGO do not know each other and they do not know the background of other organizations.

1. Media Section in Project Profile

This feature makes the ASEAN Aid Map better than the other related software that handles NGO collaboration. Media section provides better insight to collaborators of a particular project to what is happening in progress. ASEAN Aid Map provides an area where the organization which handles an ongoing project can post photos about the progress of that project. Other related applications either only display text information or text with few photos which can be disadvantageous on their part.

1. Project Collaboration Medium

NGO collaboration is very common in applications that provide a network of NGO. This feature allows NGO to collaborate with the projects of other NGO to enhance their services to the people. The NGO Aid Map provides NGO collaboration, but only the organization that manages the application can manipulate the data regarding collaboration. The NGO members should consult the organization or send an email to them if they want to collaborate on a particular project. They do not act independently regarding application for collaboration with other NGO. ASEAN Aid map provides NGO discrete application for collaboration to other organizations. They ask for collaboration and fill out the form on their own. NGO can also invite their partner NGO for collaboration. Other related applications have the same process with this feature as NGO Aid Map which is applying for collaboration through email.

1. Inquiry and Communication Tools

This feature is one of the advantages of ASEAN Aid Map compare to other related applications because it allows the NGO to communicate with their connections or collaborators. The application provides them with a project collaborator’s group and private messages where they can have their conversation. This feature allows the organizations to transact with other NGO or inquire with their partners about a certain project. With this feature, they have a place where they can share ideas and updates about the projects at hand.

1. Project Collaboration Suggestions and Notifications

The ASEAN Aid Map provides NGO users suggestions of different projects that they can work on together and can be of big help to them. The application provides the users with suggestions of projects that they can collaborate with and NGO they can invite for collaboration in their project based on collaborative filtering factors. This application helps in the interest of users on various projects and helps further improve collaboration among NGO. There are also notifications informing the user with regards to an invitation for collaboration, the collaboration, and partnership request are accepted and new projects created by their partner organizations.

1. Project Scope

ASEAN Aid Map aims to inform the people of the projects of non-government organizations in ASEAN. This web application also helps non-government organizations in managing their projects, as well as their collaboration with other organizations, and donors. The following details are presented to expound further the scope of the application:

1. Countries Included in the Map

In this application, there is a Graphical Information System (GIS) feature that shows the number of projects in the areas of a particular country. With the use of this feature, users can navigate through different projects in each state. The states included in the map are only members of the ASEAN. Currently, ASEAN has ten member states. These countries are the following: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam (Asean.org, 2016).

1. Non-Government Organizations

One of the purposes of the team in developing this application is to unite the NGO in the 10 ASEAN countries. The application allows two or more NGO to collaborate on one or many projects, and manage it together as well. In working together with different organizations, it helps in enhancing the services, training, and assistance that they can provide. Thus, in this application, only NGO of any ASEAN countries are allowed to create their profile and manage projects.

1. Users

ASEAN Aid Map target users are the ASEAN-based NGO and the public. For the NGO, they are able to setup an account for their organization. They can post and show the projects that they handle, it may be ongoing or already done. They may also collaborate with other NGO using the feature of the application which allows them to apply as a project collaborator. The public may use the ASEAN Aid Map in viewing these projects without creating an account. They may also search for projects located in their state or their sector of interest. In navigating through different projects, they either use the customize search function or the GIS feature.

1. Implementation and Development Platform

ASEAN Aid Map is a web application and is developed using a JavaScript software stack called MEAN Stack. It makes use of four building blocks: MongoDB as the database platform, Express as the backend web server framework, AngularJS as the front-end web client framework and Node.js as the server platform (Haviv, 2014). MEAN Stack components are open source, which means it gets updated regularly and can adjust according to preferences of the developers. It supports the Model/View/Controller (MVC) architecture; there is also the huge modal library of node.js and the use of JSON to transfer the data (Brainvire.com, 2016). In developing the map for the GIS feature, the team uses Google Maps JavaScript API which is free and customizable according to the developer’s needs (Google Maps APIs, 2016).