Model of E-Volunteer : A Preliminary Study to Develop Application to Support Volunteering Activities in Indonesia

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ABSTRACT

The aim of this research is to design use case model of e-volunteer. This research is a preliminary study to develop application to support volunteering activities in Indonesia in further research. As data of this research, we found three applications that have related purpose of volunteer management, including Volunteer Connection, EFI Volunteer, and Volunteer Tracker. Moreover, we found the related research that is conducted by Lovejoy & Saxton (2002). This research is examined the use of micro-blogging to support volunteering activities of non-profit organization. Based on related research and application, we attempted to model the use case model. As the result, we found the proposed feature for e-volunteer is manage region, manage work hours, manage shifts, check volunteering activities, manage volunteer profile, contact volunteer, see volunteer list, manage daily post and manage e-mail.

Keywords : Preliminary Study, E-Voting, Use Case Modeling

I. INTRODUCTION

One of the ease of the results of technological developments is the delivery of information quickly and immediately get a response from the party who received the information [1][2]. Technology is currently used by some people or organizations to gain support for both political and social purposes [1]. For the social purpose, the community, individuals or organizations use the internet to raise funds and volunteers [3].

Based on recent study, organization used web technology as media to interact to stakeholder to support information exchange about non-profit activities. Some organization usually uses networking sites, e.g. Facebook and Twitter, to build a network or connection of friends and followers in order to built-in interactivity [4][5]. However, there are limited of networking sites or social media in order to organize social event, such as volunteer management,

because networking sites did not provide the special feature for tackle this problem [6].

The related application of model e-volunteer is proposed by developer. We found three applications that have related purpose of volunteer management, including Volunteer Connection, EFI Volunteer, and Volunteer Tracker [7]–[9].

Based on related work and application, we attempted to design use case model of e-volunteer. This research is a preliminary study to develop application to support volunteering activities in Indonesia in further research.

II. RELATED WORK

The related research is conducted by [3]. This research is examined the use of micro-blogging to support volunteering activities of non-profit organization. Based on this research, we identified

that there are three main objects of activities, i.e. information, community and action.

Category	Example
Information (58.6%)	
Information	*WorldVisionUSA*: Tribal clashes with police send 16,000 people fleeing from #Congo's Equateur Province . . . http://tr.im/DRC_clashes #conflict
Community (25.8%)	
Giving recognition and thanks	*Smithsonian*: The @NationalZoo cuties are Twig Catfish. @UserID, @UserID & @UserID got it right!. More photos: http://ow.ly/Du3b
Acknowledgement of current & local events	*NYPL*: Patience and Fortitude Salute the Troops on Veterans Day! The Library Lions love a parade! http://bit.ly/2uvxm5
Responses to reply messages	*DucksUnlimited*: @UserID We hope you get to go too. If you get out, tweet using the #duckhunting tag & let us know how it goes!
Response solicitation	*ChildFund*: Change a childhood #childfundcac event starts now. Give us your best tweets on child rights. Rules @ http://www.childfund.org/twitter

Figure 1. Detail of 'information' and 'community' [3]

The example of the use of micro-blogging to support can be seen in Figure 1, Figure 2 and Figure 3.

Category	Example
Action (15.6%)	
Promoting an event	*atAMNH*: Is there biology behind holiday madness? Find out what makes us naughty or nice at Dec. 2nd's SciCafe. RSVP on Facebook http://bit.ly/4bituI
Donation appeal	*UCPNational*: Sign up for "Black Friday" Deals on Amazon.com and a % of your purchase goes to UCP. Use this link: http://bit.ly/284BRx #disability #autism
Selling a product	*MetOpera*: The new online shop is now open! Browse through for great gifts, CDs, DVDs and more! http://www.metoperashop.org
Call for volunteers & employees	*ChildrensLA*: Pls RT Mission Critical: Looking for a great online communications coordinator to help our hospital at http://bit.ly/9wRW4 #jobs
Lobbying and advocacy	*WorldVisionUSA*: On World #AIDS Day (Dec. 1), help end mother-to-child #HIV transmission. Ask Congress to keep promise . . . http://tr.im/wad_promise (VIDEO)
Join another site or vote for organization	*CatholicRelief*: Were you at the Komen Global Race in DC this year? You definitely need to join the facebook group: http://bit.ly/qvSCk #globalrace (komenforthecure)
Learn how to help	*SalvationArmyUS*: Want to sign up for an Online Red Kettle, but need a little help? Here are some fun video tutorials to get you started! http://bit.ly/3j7GHN
	Total

Figure 2. Detail of 'action' [3]

We also observed the related application to gain our insight in order to design model e-volunteer. We found three applications that have related purpose of volunteer management, including Volunteer Connection, EFI Volunteer, and Volunteer Tracker.

Figure 3. Volunteer Connection [9]

The first application is Volunteer Connection. This application is mobile-based for American Red Cross volunteers in order to manage volunteering activities. By using this application, volunteer can register the shifts, manage contact information, manage work hours, and many more.
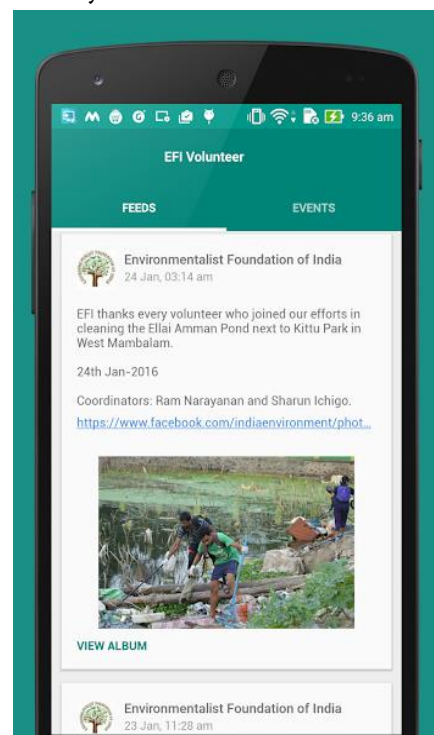

Figure 4. EFI Volunteer [8]

The second application is EFI Volunteer. This application is mobile application for India and her Environment with EFI. By utilizing this application, volunteer can see volunteering activity feeds, manage their volunteering events.
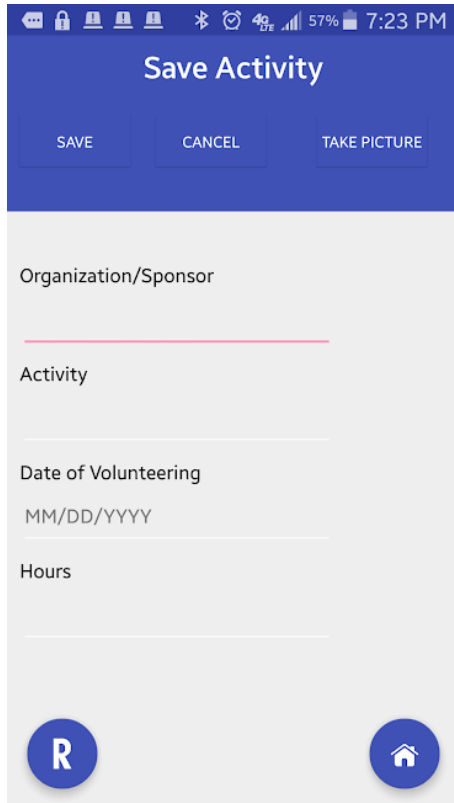

Figure 5. Volunteer Tracking [7]

The third application is Volunteer Tracking. This application is mobile application for tracking volunteering. The feature of this application is to save work hours, see volunteering activities, report on hours for each organization, get total volunteer hours, and organize volunteering pictures.

III. METHODOLOGY

This research is the preliminary study to follow-up from recent research and obtained the concept of model of e-volunteer. We attempted to complete the research in five steps as shown in Figure 1.
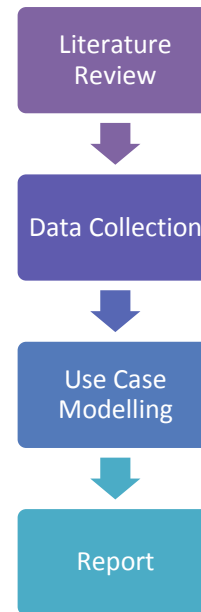

Figure 6. Research methodology

The first phase, we conducted literature review to understand business process and definition of e-volunteer. The second phase is done by collection data, including related research and application. Based on data, we attempted to design use case model and report [10].

IV. RESULTS AND DISCUSSION

We attempted to design use case model based on related research and application. As data of this research, we found three applications that have related purpose of volunteer management, including Volunteer Connection, EFI Volunteer, and Volunteer Tracker [7]–[9]. Moreover, we found the related research that is conducted by [3]. This research is examined the use of micro-blogging to support volunteering activities of non-profit organization. Based on related research, we attempted to model the use case diagram as shown in Figure 8.

We have drafted to design use case model of Volunteer Connection, EFI Volunteer, and Volunteer Tracker. The Volunteer Connection provide feature

to register the shifts, manage contact information, manage work hours, and many more is shown in Figure 7.
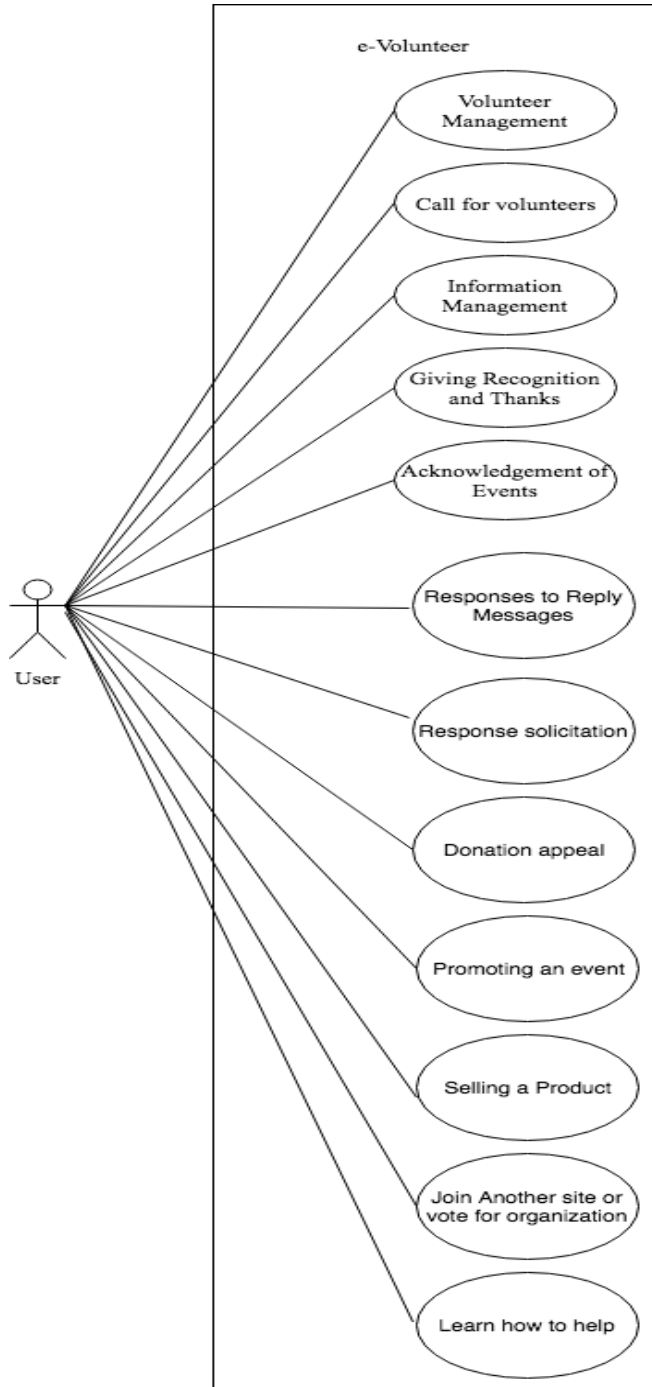

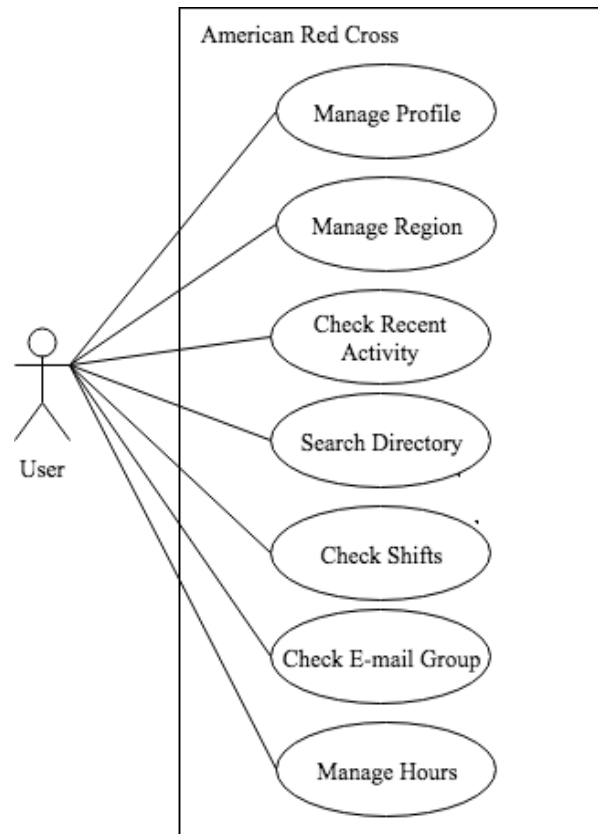**Figure 7.** Use Case Model Based on Research by [3]

Figure 7. Use Case Model of Volunteer Connection

EFI Volunteer provide feature to see volunteering activity feeds, manage their volunteering events, and many more is shown in Figure 9.
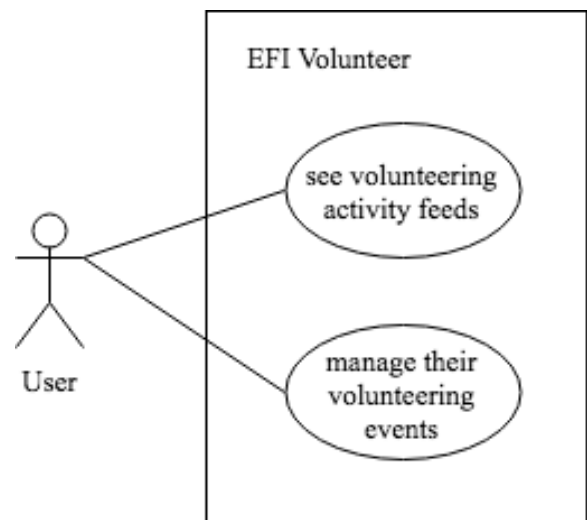

Figure 8. Use Case Model of EFI Volunteer

The last application is Volunteer Tracking which provides the feature to save work hours, see

volunteering activities, report on hours for each organization, get total volunteer hours, and organize volunteering pictures. The use case model is depicted in Figure 10.

Figure 9. Use Case Model of Volunteer Tracking

Based on the use case model above, we attempted to design use model in a frame that is depicted in Figure 11.

Figure 10. Use Case Model of E-Volunteer

V. CONCLUSION

Based on our research, we found three applications that have related purpose of volunteer management, including Volunteer Connection, EFI Volunteer, and Volunteer Tracker. Moreover, we found the related research that is conducted by Lovejoy & Saxton (2002) to support use case modelling.

As the result, the proposed feature of e-Volunteer are manage region, manage work hours, manage shifts, check volunteering activities, manage volunteer profile, contact volunteer, see volunteer list, manage daily post and manage e-mail.

VI. ACKNOWLEDGMENT

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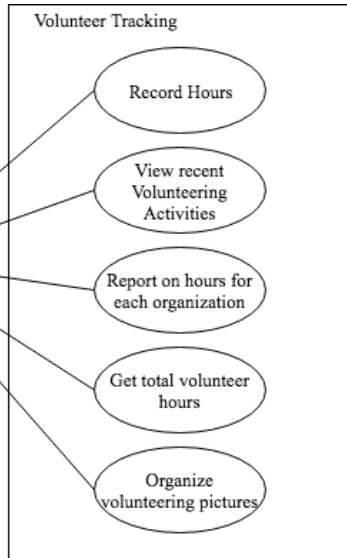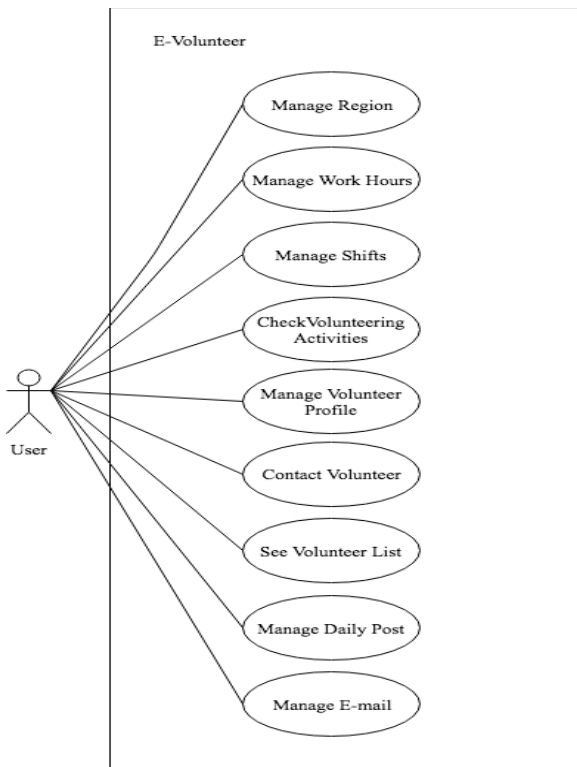
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