

CrimeHELP: Crime Scene Description Using Mobile and Web-based Technology for Better Crime Solving

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ABSTRACT

Community policing have proven on reducing the crime index. Most communities in Malaysia had accepted community policing and give full cooperation to the authorities in reducing crime. It can be shown by the successful implementation of RakanCop in 2005. Due to that, this research introduce the usage of mobile and web based application in describing the crime scene by the victim and witnesses in Malaysia. Report from the victim or witnesses will be sent directly to the authorities via mobile or web based platform. As a result, a new effective approach to support the victim and witnesses to describe accurately the crime as well as help the authority to gain fast and accurate report.

KEYWORDS: crime prevention, community policing, reporting, mobile application, web application

1.0 INTRODUCTION

Crimes become a major concern of all communities around the world. The impact of crime can affect people in a variety ways. According to the Royal Malaysia Police, incidences of crime can be categorized into two types, which are index crimes and non-index crimes. Index crime are crimes that are normally reported and have sufficient significance to be considered as indication towards the level of crime, for instance property crimes such as house break-ins [1].

In Malaysia, there are many strategies that have been conducted by Ministry of Home Affairs (MOHA) to overcome crimes including the allocation of police assistant and security guards in public areas and use of biometrics. However, it is identified there is a late receive on the crime's information by the responsible party which leads to the delay of actions to solve the crime. The victims and witnesses sometimes cannot describe the crime scene accurately due to lack of skill. Moreover, they do not want to inform the authority due to being afraid of criminal's actions and also tedious process. Therefore, due to that the authority will not get accurate information to take further action.

Malaysia authorities had increased their effort in fighting crime by launched RakanCop on 9 August 2005. It was act as a community police that help to prevent and reduce crime. As for now the RakanCop has 535 509 members nationwide. The benefit for the community who become a member of RakanCop was they were able to sent information and report about the crime by sms [2]. According to Bernama, Home Minister Datuk Seri Hishammuddin Tun Hussein said that the Rakan Cop programme will be beefed up as it is seen as the most effective initiative in reducing crime [3]

As a result from RakanCop the crime had reduced significantly in 2014 (PDRM). RakanCop had played important role in helping the authorities by sending useful information even though it have several limitations. Because of this achievement, further improvement should be done to increase the effectiveness in receiving information from the community.

2.0 OUR APPROACH & TOOL SUPPORT

Both CrimeHELP versions, web-based and mobile, were developed based on the information elicited from the authorities, victims and witnesses. While the web-based CrimeHELP is intended for the public and authorities, the mobile version functions mainly for the public to send reports to the authorities and receive subsequent report status.

The web-based CrimeHELP enables the public to register for the CrimeHELP mobile application, view information from the authorities, submit report, view report status, received feedback and manage personal information. On the other hand, the authorities can approve user registration, view report by categories, send feedback and distribute cases to the respective persons-in-charge.

The CrimeHELP mobile application allows users (victims / witnesses) to perform two main functions: 1). reporting a crime, and 2). receiving report status from the authorities. In order for the

complainant to use the CrimeHELP mobile, prior registration through the web-based CrimeHELP is required for security purposes. The registration is needed to make sure the information given by the complainant is reliable. Upon successful registration, users can then use the mobile application to report the crime. By initially indicating whether they were witnesses or victims, they then proceed to answer several questions related to the crime type.

The CrimeHELP mobile application is developed using the android version 4.2.1 as the development tool and Acer Aspire (4755G or 4530). The goal of user interface design is to make all user interaction as simple and efficient as possible, yet capturing all essential information required in a crime reporting. The major crime types are shown as standard icons also featured in the web-based system. The questions reflect the typically asked questions by the authorities which focus on the crime details and the victims/witnesses experience during the crime. Users can then submit the report to the authorities for further actions; they will subsequently receive corresponding report status. The report status by the authorities closes the crime reporting loop.

3.0 RESULT AND DISCUSSION

CrimeHELP versions developed for the usage of mobile and web-based application. The functions in the mobile and web-based applications are about the same and the user interface design is to make all user interaction as simple and efficient as possible, yet capturing all essential information required in a crime reporting. Furthermore, the information about the Polis Di raja Malaysia system is more detail in the web-based application.

CrimeHELP user can be used widely compare to RakanCop. Although both application need to register for security purposes but the way how the authorities need to approve the application is different. As for RakanCop only selected people can be the member but in CrimeHELP everybody can be the eye of the police as long as their identification is verified during registration.

Moreover CrimeHELP have more useful functions. The information given by the RakanCop only can be sent using SMS. Meanwhile, CrimeHELP can submit report with detail information to the authorities; especially it can send picture and locate the crime using map. In addition, the users will receive report status. The report status by the authorities closes the crime loop.

The reason for CrimeHELP web based application to have similar function with CrimeHELP mobile application is to make it more convenience and widely used. The user can used the application wherever they are, whether on the go, home, office or even at the police station. In the police station the victim and witnesses can report the detail and the information can be generated for further action.

4.0 CONCLUSION

The crime rate index in Malaysia for year 2013 to 2014 had decrease significantly. One of the factors is the launch of RakanCop in 2005. These show that community policing have impact on reducing the crime index. However, not everybody can use the RakanCop, only authorize member can sent information about the crime. CrimeHELP focus on dynamic participation of the community to contribute in reducing crime. Furthermore, CrimeHELP is new effective approach to support the victims or witnesses to describe accurately the crime as well as help the authority to gain fast and accurate report.

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