DATA ACQUISITION BASED ON HONEYCOMB TECHNIQUE TO TRACK CYBER ISLAMIC STATES RECRUITMENT

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ABSTRACT

Information can be quickly transmitted without any boundaries within the present moment using social media. From this, the Islamic State (IS) organization of Iraq and Syria is able to recruit new members in a faster and effective way. Malaysian police have identified more than 500 Facebook accounts that being used to recruit Malaysians to join the IS. The increase in numbers of individuals willing to be new members of IS is very worrying for the Malaysian government. The aim of this research is to find methods of identifying the characteristics of effective recruitment pages and profiles of individuals susceptible to recruitment in order to stem the tide of recruitment. Using a snowball method, 100 Facebook accounts of identified IS members will be monitored and data will be collected from the most popular accounts (track based on their FB follower and friend list) in the network-at-large using an active account.

Keywords: data acquisition; cyber Islamic states; honeycomb technique; tracking.

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1. INTRODUCTION

Social media such as Twitter, Facebook, WhatsApp, Telegram and Skype, information can be quickly transmitted within the present moment and without any boundaries. Whilst, the IS take this opportunity to disseminate the illegal information and recruiting new member effectively with a faster way. The increase in numbers of individuals willing to be new members of IS is very worrying for the Malaysian government. The 'what-how' being a question mark in looking the effective method used by the IS to recruit new member. From 1.44 billion which first quarter of 2015 Facebook active account in the world and 13.3 million in 2013, Malaysian police found more than 500 in-large-network of active account Facebook IS being the account to entice Malaysians to join IS [20]. Recently, many researches focus on Twitter functionalities [14] especially on recruiter tweet that drive the answer for number of network, number of followers, topic discussed, pictures, identifying network and woman involvement. But, there is lack of research that conducted about Islamic States (IS) recruitment detection using honeycomb technique on Facebook. Therefore, the appropriateness of method has to be in place in order to conduct the research for investigating the recruitment of new member to join the IS. The investigation will give a significant impact to the society and authority which cannot control the dissemination of the information between IS recruiter and new IS recruit. The main objective of this research is to detect and collect the information using data acquisition from the new recruitment in Islamic States through social media: Facebook (FB).

The research design consists of research preparation in the recruitment identification. Based on [20], Malaysian police have identified more than 500 Facebook accounts that are being used to recruit or entice Malaysians to join the Islamic State in Iraq and Syria (ISIS). Using a snowball method, the 30 (in pilot study) and 100 (actual study) Facebook accounts are expected to be monitor and to collect data about the most popular accounts (track based on their FB follower and friend list) in the network-at-large which is an active account. The data will gather two (2) types of profile which consist of recruiter and new recruit.

2. METHODOLOGY

The work begins by detailing the instrumental variables for IS recruitment in social media such as Social Media functionalities, Personal Behavior, Knowledge Sharing and Detection. It consists of collecting and monitoring the posting in FB. The observation of the social media will be an address to identify the most effective IS recruiting posting and characteristic. In addition, the observation on social media will also been identified for FB friend list or follower of IS recruiter. Then, analyze the posting by using Winstep tool to analyze the data. The expected outcome from this analysis will provide the framework of IS detection, recruiter profiling and new recruit, profiling. At the end, the requirement driven from this analysis will be used to develop the framework in detecting the Islamic States communication using social media functionalities. The framework will be expected to come out with an interaction between IS detection, recruiter profiling and new recruitment profiling.

2.1. Internet Cyber

Taken together with the economic concepts of met or unmet expectations and whether the cultural locus of control is on the individual who society will blame in times of crisis and to whom its members will look for purpose and guidance become clear. The focus in the terrorism literature on the theatre of terrorist spectaculars overshadows the reality that terrorists also use the Internet for the same reasons everybody else does; for organization and planning, proselytizing and entertainment and to educate the believers. In fact, most of the online communication of terrorists is mundane to the point of appearing innocuous.

2.2. Cyber Security in Social Media

Previously, the jihadist insurgents in Syria and Iraq use all manner of social media apps and file-sharing platforms, most prominently Ask.fm, Facebook, Instagram, WhatsApp, PalTalk, kik, viper, JustPaste.it and Tumblr. Encryption software like The Onion Router (TOR) is used in communications with journalists to obscure locational information. But, circumstances conspire to make Twitter the most popular application. Specifically engineered for cellphones, it is easy and inexpensive to use [14]. In [13] also done the research on extremist Tweeter which drive the point of tweet for number of network, number of followers, topic discussed, pictures, identifying network and woman involvement.

In the new lateral social media environment control over content is decentralized. Anyone can participate. Distribution is decentralized via "hubs" and volunteers use mainstream interactive and inter-connected social media platforms, blogs and file sharing platforms. Cross-posting and re-tweeting content on social media by volunteers is a low-cost means of dissemination to wide audiences.

2.3. Data Acquisition on Cyber Security

With culture itself as the focus of the human geographic content analysis, this element is likely to have the most subcomponents. Depending upon a country's stability status, this aspect is also likely to be the most heavily weighted, particularly for the more Islamic nations where such subcomponents as custom and religion are key elements and other such connectivity, influence and power being supportive elements [14].

2.3.1 Strong Tie Characteristic

Based on [8], there are a strong tie using three related characteristics: (1) a sense of the relationship being intimate and special, with a voluntary investment in the tie and a desire for companionship with the tie partner; (2) an interest in being together as much as possible through interactions in multiple social contexts over a long period; and (3) a sense of mutuality in the relationship, with the partner's needs known and supported.

2.3.2 Weak Tie Characteristic

Weak ties have also been studied extensively in the social network analysis literature. In [23] asserts that weak ties are important in moving forward in social settings and give individuals the ability to be recruited into other groups. Weak ties allow members to bridge contact between networks [9], while their absence restricts information to only that from the close circle. In [12] asserts that weak ties with host nationals are significant for the adaptation process of international people, due to their function as a source of information of the host culture's communication patterns.

2.3.3 Knowledge Sharing

A few terminologies involve with viral information is knowledge sharing. In the modern knowledge-intensive economy, knowledge is known as a critical strategic asset for an individual and is considered to be a source of sustainable competitive advantage [5].

According to [24], knowledge provides a framework to evaluate and incorporate new experiences and information from the mixture of framed experience, values, contextual information and expert insight. The primary key in obtaining knowledge from others is knowledge sharing. Knowledge sharing can also be defined as one of the activities that knowledge is transfer among the individuals to convert it to become valuable information and resources [17]. Knowledge sharing has been the most discussed topic and a challenge for organizations because of its importance for the success of knowledge management efforts [1].

3. RESULTS AND DISCUSSION

Information can be distributed through social media. In June 2012, the Internet World Statistics reported that there were about 17.7 million internet users in Malaysia which accounted for almost 60.7% of the population and stood at the third place among Asian Developing Countries after South Korea 82.5% and Singapore 75%. Changes in technology and the increasing number of internet users have also encouraged the Malaysian citizen to share knowledge through social media.
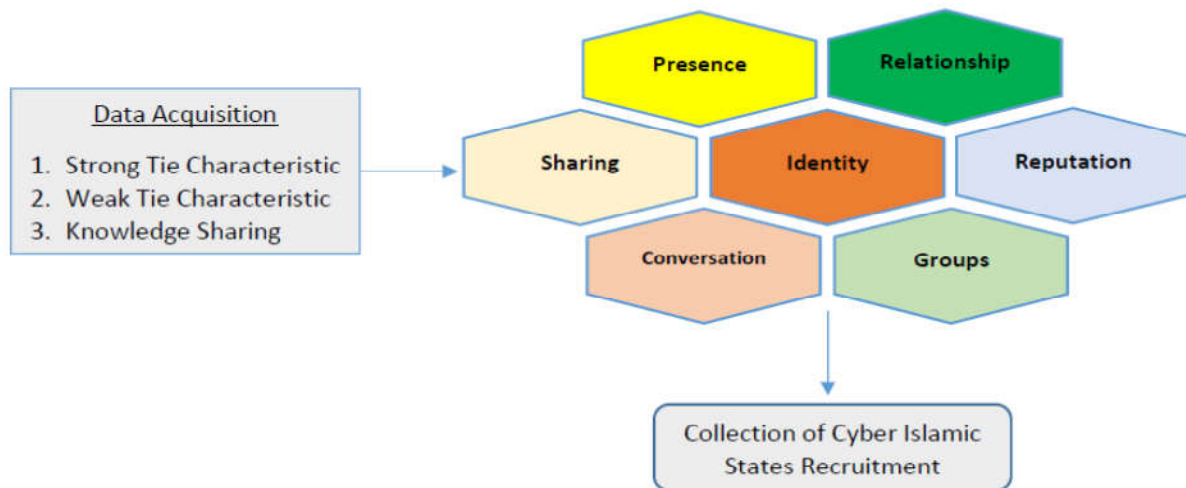
Fig.1. Conceptual framework of data acquisition based on honeycomb technique for cyber Islamic states recruitment

Social media continues to have a tremendous impact on how people behave online; how they search, play, converse, form communities, build and maintain relationships; how they create, tag, modify and share content across any number of sites and devices. In order to provide a managerial foundation for understanding these Facebook service, consumers and their specific

engagement needs, a honeycomb social media functional building blocks framework (Fig. 1) was recently presented by [11]. Its usefulness as a lens for understanding social media through seven functional building blocks has since been discussed widely in scholarly and practitioner-oriented publications. The seven functionality blocks of social media has been used to explain the implications that each block has for how organizations or people should engage with social media are:

3.1. Identity

This functional block describes the extent to which users choose to reveal their identities in a social media setting, or alternatively, the degree to which sites allow or require identities to be shared. Such identity can be associated not only with elements such as name, age, gender, profession and location but also with more subjective information that reveals users through the conscious or unconscious 'self-disclosure' of personal information [12]. In this sense, users with their virtual representations [18-19] share thoughts, feelings, likes and dislikes in an effort to be understood as the person they desire or believe themselves to be [4, 15, 21].

3.2. Group

This building block represents the extent to which consumers can form and join communities and sub-communities that can be open to anyone, closed (approval required) or secret (invite only); and the degree to which they can control their membership [6] or even group moderate the amount of influence some social media customers or groups exert [10]. One key component of this social context is group distinctiveness or the rationale by which individuals set up or join groups and not others. Group members hold their group and their peers in high esteem, often leading to in group favoritism and might feel animosity towards those belonging to other groups.

3.3. Relationship

This building block addresses the extent to which users can be related to other users. Relate as define as two or more consumers who have some form of relationship that leads them to converse, share objects, meet up or simply just list each other as a friend or fan [16]. The flow property of user relationships refers to the types of resources involved in individual relationships and how these resources are used, exchanged or transformed.

3.4. Reputation

Reputation is 'a tool to predict behavior based on past actions and characteristics' [22]. This building block addresses the extent to which users can determine other users' level or themselves in term of their reputations because individuals cannot draw from enough personal historical data for such predictions, the reputation of other individuals, of a firm or of a product is a socially shaped opinion based on aggregate experiences, shared through word of mouth, coverage in the popular press and so on [2, 7]. In essence, reputation is about how trust between parties is developed, assessed and maintained [3].

4. CONCLUSION

In conclusion, the conceptual framework in Fig. 1 will be a baseline for this continuous research. It will comprise of the relationship between detection, Facebook functionalities and the outcome that contribute to the new IS recruitment. The causal-effect of this research will directly give a guideline and benefit to the public and government from having the new IS recruitment. The new recruitment can be control accordingly.

5. ACKNOWLEDGEMENTS

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