

Terrorism, Social Media and Text Mining Technique: Review of Six Years Past Studies

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Abstract— The aim of this paper is to examine the Islamic State of Iraq and Syria (ISIS) recruitment actual behavior through social media. The ISIS has targeted Indonesia as the main source of participants due to the large of Muslim community with active internet users. Despite many ways to connect with social media like Twitter, Facebook, Instagram, and YouTube using videos and images, this paper is selected text as the main of source of materials. This paper is deployed a qualitative technique to analyze related literature and then it was combined with media tracking systems from texts posted on Twitter, Facebook, Website, and Telegram. The text mining was captured words that frequently appears that mentioned their support to the ISIS accounts from 2011 to 2017. This paper found that Indonesian tends to pay more attention to the existence of ISIS in Syria. This paper suggests that the Indonesian related agency to closely monitor the accounts which positively associated with ISIS terrorism and propaganda and take necessary action to clean up the massive haywire issues.

Keywords— ISIS, social media, text mining, recruitment, terrorism

I. INTRODUCTION

Social media is now a necessity for the world community. Each day, it was counted 2.5 quintillion bytes of data created throughout the world. Quintillion is a count of two levels above trillion, in the middle between quintillion and trillion is a quadrillion. This means that the world uses so much data production in a day. This data is very surprising when it is known that the majority of users use it for social media activities, email, and Google. Internet users use email reaching 205 billion bytes, then Google users who reach 6 billion bytes of data per day. Facebook occupies the next position which reaches 4.3 billion bytes of data per day, Instagram produces 3.6 billion bytes of data

every day followed by Twitter in the form of text reaching 500 million bytes per day. While YouTube reaches 4 million bytes of data per day [1]. Internet users in Indonesia with a population of 265.4 million reach 50 percent or around 132.7 million users in 2014. [2]. We Are Social (Singapore) stated that social media users in Indonesia reached 106 million from 262 million total populations [3]. The highest activity was carried out by digital natives with a percentage of 62 percent using smartphones, 16 percent using computers, and 6 percent using tabs. Internet users are divided into 4 groups based on their age. First, the generation of baby booms born in 1946-1964, second-generation X, those born from 1965-1976, the third generation of the internet, those born from 1977-1997, this group is also called the millennial group or generation Y, fourth those who born in 1998 until now, they are called the Z generation. The millennial generation and Z generation enter digital natives, which 79 percent of their time per day is spent using the internet and social media [4]. Indonesians have only 22 percent internet access. But in 2015, users with cell phones exceeded 100 percent. Based on social media agents in Paris, Jakarta has been named the number one twitter city in the world. Indonesians send 15 tweets per second and around 95.7 percent of Indonesians use social media over Singapore, Malaysia and India. Besides Twitter, Facebook is also very popular in Indonesia. Indonesia is the fourth most active country to use Facebook throughout the world. [5]

The majority of Twitter social media users are those who do not have a blog, have never uploaded YouTube videos but frequently update their status on Twitter and Facebook. Other social media users like Line, Path, and LinkedIn are not as big as Facebook and Twitter. From these data, internet users in Indonesia are very significant and the biggest ones are Facebook and Twitter [6]. The problem is