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2016 KSU Conference on Cybersecurity Education,  
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# Investigating Cyberbullying in Social Media: The case of Twitter

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Tian, Xin, "Investigating Cyberbullying in Social Media: The case of Twitter" (2016). *KSU Proceedings on Cybersecurity Education, Research and Practice*. 4.

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**Abstract**

Social media has profoundly changed how we interact with one another and the world around us. Recent research indicates that more and more people are using social media sites such as Facebook and Twitter for a significant portion of their day for various reasons such as making new friends, socializing with old friends, receiving information, and entertaining themselves. However, social media has also caused some problems. One of the problems is called social media cyberbullying which has developed over time as new social media technologies have developed over time. Social media cyberbullying has received increasing attention in recent years as the media began shedding light on the devastating consequences that bullies can bring to their victims via social media. During the past few years, there has been a sharp rise in media reports regarding the use of social media to annoy, humiliate, intimidate, bully, and threaten others, with harmful consequences such as emotional distress, anxiety, depression and in some cases, suicidal tendencies. Therefore, it is imperative for researchers to investigate the phenomenon of social media cyberbullying. This study identifies public cyberbullying messages on Twitter and then specifically examines the diffusion of these cyberbullying messages through Twitters. Java programs were developed to gather Twitter cyberbullying messages using search API offered by Twitter and then these messages were analyzed in depth to understand how people retweet cyberbullying messages on Twitter.

**Disciplines**

Information Security | Management Information Systems | Management Sciences and Quantitative Methods  
| Technology and Innovation

## SUMMARY

Cyberbullying messages are retrieved from twitter and were analyzed. The analysis results did not find significantly strong relationship between the negative sentiments and the number of retweets. However, an interesting finding is found regarding the top 50 messages with retweets. The results are pronounced and showed that support the hypothesis 1: *The more negative a Twitter cyberbullying message exhibits, the more often it will be retweeted.* That means the cyberbullying message with more negative words typically spreads more often. The speed of retweeting for negative sentiment messages is faster than that of positive sentiment messages. The Hypothesis 2 is also supported. The mean of the number of retweets in is 164,683. Such a large number indicates that the retweeting behavior may have a significant impact on the victims who are suffered from the harassment. Although social media is a useful tool to help people communicate with others, it could become a tool utilized by bullies to hurt other people. As bullying on social media is particularly harmful to the adolescent (Gilkerson, 2012), more studies on bullying prevention is needed.

Educating adolescent about cyberbully is so important because it can effectively prevent and stop cyberbullying from happening and worsening. One recent research find violence tendency is positively related to cyberbullying perpetration (Sari and Camadan, 2016). Goodboy and Martin (2015) found that of the personnel traits, psychopathy emerged as the unique predictor of cyberbullying. They suggest that personality traits are important predictors of computer-mediated behavior. To reduce the spreading and development of cyberbullying, educators should be proactive to recognize the characteristics of cyberbullying messages, develop relevant mechanisms and policies to identify cyberbullying messages as early as possible and address the implications caused by cyberbullying.

This case study shows that the more negative cyberbullying messages, the more retweets will happen and negative messages spread faster than positive messages. The results have some implications for social media providers, educators, parents, students, and school policy makers. For social media providers such as Facebook and Twitter, they can use this methodology to determine if there is a need to eliminate some of the negative tweets that cause so many retweets because such messages could potentially hurt young kids. Twitter could develop a new filter and require user-identity verification to limit the bullying. Social media sites still do not have enough action to address harassment on the site. Educators from middle school and high school should let their students know the consequence of cyberbullying and teach them how to identify and deal with the cyberbullying messages. Parents and students should be educated about cyberbullying. Policy makers need to be proactive to develop relevant mechanisms and policies to reduce the happening of cyberbullying. As for future research, I plan to mine the contents in these tweets

through machine learning and data mining techniques in order to better identify how content characteristics (e.g., topics, URL and hashtag) and network characteristics (e.g., friends/followers or not) are related to retweet behavior.

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