**J.Patchin, & S. Hinduja, "Bullies move beyond the schoolyard; a preliminary look at cyberbullying.” Youth violence and juvenile justice.4:2 (2006). 148-169.**

* Bullying in a school setting is an important social concern that has received increased scholarly attention in recent years. Specifically, its causes and effects have been under investigation by a number of researchers in the social and behavioral sciences.
* A new permutation of bullying, however, has recently arisen and become more common: Techsavvy students are turning to cyberspace to harass their peers. This exploratory article discusses the nature of bullying and its transmutation to the electronic world and the negative repercussions that can befall both its victims and instigators. In addition, findings are reported from a pilot study designed to empirically assess the nature and extent of online bullying.
* The overall goal of the current work is to illuminate this novel form of deviance stemming from the intersection of communications and computers and to provide a foundational backdrop on which future empirical research can be conducted.
* It is unclear exactly how many youth are bullied or bully others on any given day. In 1982, 49 fifth grade teachers from Cleveland, Ohio, reported that almost one fourth (23%) of their 1,078 students were either victims or bullies (Stephenson & Smith, 1989). More recently, a nationally representative study of 15,686 students in grades 6 through 10 identified that approximately 11% of respondents were victims of bullying, 13% were bullies, and 6% were both victims and bullies during a year (Nansel et al., 2001).
* Additional research conducted by the Family Work Institute substantiated these findings through interviews with 1,000 youth in grades 5 through 12. Their study found that 12% of youth were bullied five or more times during the previous month (Galinsky & Salmond, 2002).
* Finally, the Bureau of Justice Statistics reports that 8% of youth between the ages of 12 and 18 had been victims of bullying in the previous 6 months (Devoe et al., 2002). That said, conservative estimates maintain that at least 5% of those in primary and secondary schools (ages 7-16) are victimized by bullies each day (Björkqvist, Ekman, & Lagerspetz, 1982; Lagerspetz, Björkqvist, Berts, & King, 1982; Olweus, 1978; Roland, 1980). Many young people are able to shrug off instances of being bullied, perhaps because of peer or familial support or higher self-efficacy. Nonetheless, others are not able to cope in a prosocial or normative manner or reconcile the pain experienced through more serious episodes or actions.
* Suicidal ideation, eating disorders, and chronic illness have beset many of those who have been tormented by bullies, whereas other victims run away from home (Borg, 1998; Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä, & Rantanen, 1999; Striegel-Moore, Dohm, Pike, Wilfley, & Fairburn, 2002). In addition, depression has been a frequently cited consequence of bullying (e.g., Hawker & Boulton, 2000) and seems to perpetuate into adulthood, evidencing the potentially long-term implications of mistreatment during adolescence (Olweus, 1994).
* Finally, in extreme cases, victims have responded with extreme violence such as physical assault, homicide, and suicide (Patchin, 2002; Vossekuil et al., 2002). Following the fatal shootings at Columbine High School in Littleton, Colorado, in 1999, the educational system was challenged to address bullying because the two teenagers involved in the massacre were reported to have been ostracized by their classmates. Additional school violence research of 37 incidents involving 41 attackers from 1974 to 2000 found that 71% (29) of the attackers “felt bullied, persecuted, or injured by others prior to the attack” (Vossekuil et al., 2002, p. 21). It was also determined that the victimization played at least some role in their subsequent violent outburst.
* Other less serious but equally as negative outcomes can result from repeated bullying. For example, students who are constantly harassed may attempt to avoid the problems at school as much as possible, leading to tardiness or truancy (BBC News, 2001; Richardson, 2003; Rigby & Slee, 1999). Truancy has been identified as a significant antecedent to delinquency, dropout, and other undesirable outcomes in the juvenile justice literature (Farrington, 1980; Garry, 1996; Gavin, 1997; Nansel et al., 2001). Based on these findings, it is clear that victims of bullies are at risk to have a discontinuous developmental trajectory for many years

**Sourabh Parime, Vaibhav Suri “Cyberbullying Detection and Prevention: Data Mining and Psychological Perspective”, 2014 International Conference on Circuit, Power and Computing Technologies [ICCPCT]**

* Bullying is defined as targeting an individual or a group of individuals and exposing them to ridicule and negative actions both physical and mental deliberately. This is a common but serious and demoralizing experience that every individual encounters at least once in his or her lifetime.
* With the advent of technology, a form of bullying known as cyberbullying has spread very quickly targeting masses of innocent people very easily. Cyberbullying involves the use of computers, mobile phones, etc. for bullying activities.
* In this paper we focus on the data mining and machine learning techniques which have been proposed to detect and prevent cyberbullying and implement one such machine learning technique to identify the presence or absence of cyberbullying using the dataset from a popular social networking website.
* We also discuss the psychological factors related to cyberbullying and how the problem can be tackled along those factors. A few proposals for the future algorithms for the detection and prevention of cyberbullying are also put forth.
* In this paper, we proposed an approach to detect cyberbullying using machine learning techniques. We evaluated our model on two classifiers SVM and Neural Network and we used TFIDF and sentiment analysis algorithms for features extraction.
* The classifications were evaluated on different n-gram language models. We achieved 92.8% accuracy using Neural Network with 3-grams and 90.3% accuracy using SVM with 4- grams while using both TFIDF and sentiment analysis together. We found that our Neural Network performed better than the SVM classifier as it also achieves average f-score 91.9% while the SVM achieves average f-score 89.8%.
* Furthermore, we compared our work with another related work that used the same dataset, finding that our Neural Network outperformed their classifiers in terms of accuracy and f-score.
* By achieving this accuracy, our work is definitely going to improve cyberbullying detection to help people to use social media safely. However, detecting cyberbullying pattern is limited by the size of training data. Thus, a larger cyberbullying data is needed to improve the performance.
* Hence, deep learning techniques will be suitable in the larger data as they are proven to outperform machine learning approaches over larger size data.

**K. Reynolds, A Kontostathis, and L. Edwards, "Using Machine Learning to Detect Cyberbullying," In Proceedings of the 2011 1Oth international Conference on Machine Learning and Applications Workshops (ICMLA 2011), vol. 2, December 2011. pp. 241-244.**

* Cyber bullying is the use of technology as a medium to bully someone. Although it has been an issue for many years, the recognition of its impact on young people has recently increased.
* Social networking sites provide a fertile medium for bullies, and teens and young adults who use these sites are vulnerable to attacks.
* Through machine learning, we can detect language patterns used by bullies and their victims, and develop rules to automatically detect cyber bullying content. The data we used for our project was collected from the website Formspring.me, a question-and-answer formatted website that contains a high percentage of bullying content.
* The data was labeled using a web service, Amazon's Mechanical Turk. We used the labeled data, in conjunction with machine learning techniques provided by the Weka tool kit, to train a computer to recognize bullying content. Both a C4.5 decision tree learner and an instance-based learner were able to identify the true positives with 78.5% accuracy.

**Tip 1 to Prevent Cyber Bullying – Be Wary of Your Child’s Online Activities**

In this digital era, children are growing up with technology at their fingertips. Thus, different types of cyber bullying have become a household occurrence. Teenagers and adolescents are more vulnerable to cyber bullying as they have limited understanding of the good and the bad.

As a parent, it is your responsibility to be aware of your child’s online activities in order to prevent cyber bullying. Be cognizant of the apps and digital media that your child is using. It is imperative that you ensure that your child engages more in offline activities than an addiction to computers, online gaming, and smartphones.

**Tip 2 to Prevent Cyber Bullying – Watch out for These Signs**

The following are some warning signs that your child is being cyber bullied or is cyber bullying others.

* Considerable increase or decrease in your child’s usage of a mobile, laptop or tablet
* Display of emotional responses such as sadness, anger or happiness to the activities on their device
* The tendency to avoid discussion on their online activities
* Hiding of the device screen when others are close by
* Indifference to social activities and gatherings, and outdoor activities
* Sudden deactivation of their social media accounts or opening of new ones
* Becoming depressed and withdrawn

**Tip 3 Steps to Prevent Cyber Bullying – Steps to Take in the Aftermath**

If you observe any of the aforesaid warning signs, it may indicate your ward’s involvement in some form of cyber bullying.

In the unfortunate event of your child experiencing cyber bullying, it is essential that you take prompt steps to show your support as well as report cyber bullying. The following are some of the things that you can do in case your child or kin is a victim of cyber bullying.

**M. Chandrashekhar, Muktha G S & Anjana D K, “Cyberstalking and Cyberbullying: Effects and prevention measures” Imperial Journal of Interdisciplinary Research (IJIR) Vol-2, Issue-3, 2016 ISSN: 2454-1362**

* With the advancement in technology, online harassment is also becoming more prevalent. Cyberstalking and cyberbullying are two such social problems where a user is deliberately and persistently abused online.
* These issues have creatednew challenges for the detection, and prevention of such phenomenon as it is inadequate to just use the traditional methods such as identification by witnesses and enforcing restraining orders.
* The cyber stalkers and cyberbullies disguise the mselvesusing the Internet without the fear of any consequence and target victims.
* In this paper we examine the nature and extent of cyber stalking and cyber bullying and the irimpact on the victim’s mindset. This study can helpin figuring out some means for preventing such online abuse.
* Handbooks to guide the public, professors and parents conclude, "Cyberbullying is being brutal toot hers by dispatching or posting hurtful posts usinga mobile phone or the internet." Investigation, legislation and schooling in the field are under process.
* Basic definitions and general rules to help identify and manage what is regarded as abuse of e-media and electronic intercommunications have been identified. Cyberbullying involves iterated intrusion with the intention to hurt the victim
* Trolling and Flaming:

This category includes posting mean spirited, rude or angry messages2.

Excluding:

* For malicious reasons leaving someone out of an online group.3.

Masquerading:

* Creating media profiles in Facebook, Twitter or other social networking sites assomeone else in order to damage the reputation of the victim.4.

Mobbing:

* A group of people forming a gang and sending hundreds of text messages to the victim’s system. This is similar to the Denial of Service problem.5.

Denigrating:

* Posting or sending some cruel and embarrassing material like personal text, photos, etc. about the individual to others and demeaning the person in other’s view.6.

Outing:

* With the intent of embarrassing or harming a person, posting or sending out private information about someone without that person’spermission.7.
* Harassing:

Repeatedly sending un wanted messages to another person