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كلية العلوم في الزلفي  
قسم علوم الحاسب

## **Cyberbullying and Software Design**

Student Affairs System  
For College of science Al Zulfi  
Department of Computer Science and Information

### **Graduation Project**

Submitted in partial fulfillment of the requirements for the  
award of  
Bachelor degree of the Majmaah University  
(Semester 2, 1440-1441H)

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## **Abstract**

Cyberbullying is an aggressive, intentional action performed by a group or individual by using electronic means of contact. They are multiple different methods in which cyberbullies reach their victims, including instant messaging via the Internet, social networking web sites. Additionally, there are different features of cyberbullying including, but not limited to, harassment and impersonation. As the same time, training young people did not essentially decrease or protect cyberbullying. Clearly there is a need for further research to assess the effectiveness of different types of technological intervention.

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**MAJMAAH UNIVERSITY,  
COLLEGE OF SCIENCE AL ZULFI,  
DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION**

**(CERTIFICATE BY STUDENT)**

This is to certify that the project titled **“Cyberbullying and software design”** submitted by me (**Naif Mudhish Almudhish, 341106179**) under the supervision of **Dr. Abdullah Algashami** for award of Bachelor degree of the Majmaah University carried out during the Semester 2, 1440-1441H embodies my original work.

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# **Chapter 1:**

## **1.1 Introduction**

On these days, many children and adolescents spend a lot of time on social networks. The Internet is used not only as an educational tool, but also for fun, games and to improve and keep social contacts. One of the risks children and adolescents run online is to become a victim of cyberbullying. Cyberbullying can be defined as ‘any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others’( Tokunaga RS,2010). Recently, cyberbullying acquired a lot of attention. There have been a number of cases involving online bullying with extreme results for those involved that have received extensive media coverage.

## **1.2 Problem Statement**

- According to Tokunaga (2010, p. 278), cyberbullying is defined as “any behavior performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others”.
- Cyberbullying has huge influence on individuals` lives through utilization of social networking sites.
- Essential difficulty in cyberbullying research is providing with appropriate data and its availability.
- Cyberbullying can negatively impact mental, physical, and behavioral health status of victims and their families (De Bourdeaudhuij, Jacobs, DeSmet, & Gunther, 2015).

### **1.3 Research Objective :**

**Objectives 1:** Conduct a literature review on related topic:

The researcher shall search for the literature review in order to study and review all aspects surrounding this topic. Additionally, the literature review will help the researcher in order to create and make opinions, which will be useful and fruitful on the desired and expected outcomes.

**Objectives 2:** To explore the main features that might cause the problem:

Cyberbullying can occur through SMS, Text, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content. Cyberbullying includes sending, posting, or sharing negative, harmful, false, or mean content about someone else. It can include sharing personal or private information about someone else causing embarrassment or humiliation.

**Objectives 3** To explore the main design features that might help to reduce the problem:

There are many features that reducing the cyberbullying throughout stop responding to the bully's messages, don't directly respond to the text messages, instant messages, emails or other communications that may have received from the bully, block the bully. Immediately put an end to the bully's most invasive threats by blocking that person from direct communication and change the account settings. Prevent the person from finding a new method to contact

### **1.4 Research Main Scope**

- The scope will be on social networking sites SNS (e.g. Instagram and Snapchat).
- The scope will be special for kids and how they are subjected to cyberbullying.

## **Chapter 2:**

### **2.1 Literature review**

On these days, new technologies are appeared, and new applications are created to develop different situations of the society. Cyberbullying is explained by Keith and Martin (2005) "Cyberbullying involves the use of information and communication technologies such as email, cell phone, pager text messages, instant messages (IM), defamatory personal websites, and defamatory online personal polling websites, to support deliberate, repeated, and hostile behavior by an individual or group, that is intended to harm others".

The most common example is the utilization of technology in order to communicate among others. Regarding to the internet, the person has the ability to use internet, blog, instant message, create websites, and chatting with others. The internet is special platform for communication and means for cooperation. As the same time, the using of cell phones becomes more popular. Individuals are able to use the cell phones to talk other people, and also send photos, and access the internet. Most of these advances on technologies have been affecting positively, and becoming the mean for communications among individuals and exchanging the culture. On the other hand, technology has the negative effects, especially on the morals of youth. So, the term cyberbullying appears with the emergence of technology and era of internet, and the problems didn't appear suddenly.

Most victims of cyberbullies are children, but there are also adults who are cyberbullying victims. Additionally, cyberbullies will know their victim, but occasionally they will pick victims they don't know. In these situations, the cyberbully is picking on someone based on a type of bias or prejudice. They may pick on people based on religion, race, gender, sexual orientation, or people who are deemed "not cool." Other times, they will pick on someone based on a message that he/she has posted that the bully doesn't like. Many bullies pick on people for the feeling of power that it gives them. As the results, the Internet seems to give anonymity; cyberbullying is often seen to have fewer consequences to the bullies, which can encourage them to be more aggressive.

Cyberbullies don't have the strong but they exploited their strong throughout and via internet and have the desire to terrorize. Anyone can be a cyberbully, and those persons usually have few anxieties about having face-to-face confrontation with their victims. Indeed, the disappearance of cyberbullying may harm students who traditionally would not bully in the tradition-sense to become a cyberbully (Poland, 2010).

School aged children have begun to utilize this new means to bully others.

As the same context, cyberbullying is one of the new subjects and considers as an integral part of technology and internet. cyberbullying is an appropriately new topic, as the result of the recent availability of technology, but there are a few studies performed in order to tackle all aspects surrounding this concept. Both quantitative and qualitative have been used with students, to explain and show their thoughts behind cyberbullying.

One of the qualitative studies performed by Agatston, Kowalski, and Limber (2007) discussed and shed light on 150 students from two middle schools and two high schools who participated in target groups. The groups were distributed by gender, and the age ranges were 12-17 years. Agatston et al., reached at the female students explained more than the male students that cyberbullying was a challenge at their school. Additionally, the students observed that cyberbullying usually occurred outside of school, except cyberbullying through text messaging. These students stated that they were less possibly to show and explain this type of bullying as the result of they are afraid that they will enjoy with their interests throughout the technology devices.

Mishna et al. distributed their results from these focus groups into five categories. The first category shed light on how much time was spent using technology and how the students began to cyberbullying. Some of the student explained that their younger siblings play on the computer without any problems. They also said that the facilitator they desire to spend more time on the internet than in front of the TV. They always spend approximately three hours daily on the computer. The second result focused on how the students defined cyberbullying. Boy aged 10 years explained the cyberbullying as, "I think cyberbullying is much worse than verbal bullying because you can't tell anyone about it and then no one really know what's going on and, the person who's doing it doesn't feel as guilty because they're not saying it to their face."



Beran and Li reached that students' essential form of electronic media for cyberbullying was email or instant messaging. Only one third of the students reported that they have not heard of any cyberbullying occurring. In Beran and Li's study, it was that a quarter of the students examined and experienced cyberbullying at least a few times, and 35% experienced it once or twice.

Among of the students who have participated on the study, 57% said they felt angry on multiple situations, and 36% said they felt sad, and hurt. Additionally, there were 64% of the students' who were cyberbullied, also explained that they were victims of other kinds of bullying as well.

Beran and Li (2005) was not the only study seeking to discover the answers of cyber bullying. In 2007 Wolak, Mitchell, and Finkelhor created a telephone study. With this study they were able to interview 1500 youth ages 10-17. The study was performed by first contacting the family to get parental assent and student consent verbally. The student was then allowed to schedule their own interview time, so that they would be able to talk freely and confidentially. The phone interviews lasted roughly 30 minutes.

All of the students were asked two questions: "In the past year, did you ever feel worried, or threatened because someone was bothering or harassing you online?" and "In the past year, did anyone ever use the internet to threaten or embarrass you by posting or sending messages about you for other people to see?" Outside of those two questions the students were also asked about their care-givers, and were asked a couple of questions off of the Juvenile Victimization Questionnaire .

Wolak et al. found that 9% of the students have been harassed online in the past year. As the same context, these students who have been harassed, 43% were by known peers, and 57% were by people who they did not know. The main types of cyberbullying in this article were sent or posted messages for others to see, suggesting gossip or rumor spreading, and incidents that would be difficult for target to terminate. Walak et al. decide that bullying may not be the correct term for all online interpersonal offenses, because they vary so much, online harassment would be a better term. They state that the term bullying needs to be reserved for when the bullying is happening offline as well. This is different compared to the other studies that have been looked at thus far.

Wang et al. found good information in regards to bullying. Their study helps put a perspective on how much cyberbullying is actually being used. Furthermore, the students who said they were bullied, 12.8% percent said it was physical, 36.5% said it was verbal, 41 % was relational, and 9.8% was cyber. So while cyberbullying is on the rise, there are still other forms of bullying that occur more often. Wang et al. also showed that higher parental support correlated with less bullying. Additionally, the more friends a student had correlated with more bullying. This refers requirements for adolescents to create social status. An interesting piece of information that the researchers found was cyberbullying did not follow the same situations as traditional bullying. Cyberbullying was not related to number of friend, and it did not vary by grade.

Smith et al (2008) reached that in line with Raskauskas and Stoltz (2007), which cyber victims had traditional victims, and cyberbullies had often been traditional bullies; many traditional victims or bullies were not cyber victims or bullies. Cyber victims are more based on the internet, feel less popular, take more internet-related risks, are more often a bystander and attacker of internet and mobile phone bullying, and are less often an attacker and more often a victim of traditional bullying.

As the literature has explained, there have been a few studies prepared and conducted to get students explanations on cyberbullying, as far as how it influences them, who are performing it, and how they are dealing with it. One of the common things that are performed in each study is that the students are afraid to show and explain adults, as the result of the results they may have to face or as the result of they feel the adults will not know.

Cyberbullying is within their school district. Along with that they require to provide general information to the teachers, and other employees to assist on educating them on cyberbullying, and how to prevent it (Beale & Hall, 2007). Beale and Hall also explain the importance of educating the students on cyberbullying. This education could originate from a number of ways such as, internet safety instructions , how to report cyberbullies, and how to prevent your internet identity from being stolen .

Some of these changes that may appear in the school district may require to be changed in the school guidelines, so it is necessary to review the definition of bullying to contain cyberbullying, and the results of cyberbullying (Beale & Hall, 2007). A final item that

Beale and Hall propose to make a safe environment for all students is to create and prepare a school wide cyberbullying task force. This force is to be formulated of technologically savvy educators, parents, students, and community members. Their aim is to create and show anti-cyberbullying programs.

As the literature has shown, there have been numerous advances about how to combat cyberbullying within and outside the school. Additionally, it is necessary to note that even though there is a lot of information extracted and relating to cyberbullying, but it isn't comprehensive and full of information out there as to how to stop cyberbullying. This will be an important part of the process as the schools and parents learn more about what their children are doing with their technology, and how to make sure they are not harming, or being harmed by others. Most of the literature at is showing and concluding the traditional bullying programs and incorporating education on cyberbullying, but in the future, there requirements to be specific cyberbullying methodology and procedure, to make sure that students are receiving the appropriate amount of information, and understand that it is appropriate to tell an adult that things on the internet, or over text messaging are happening. If schools and parents are preparing this way and strategy, there is a step to shed light on the problem and how to treat it efficiently and sufficiently.

Addictive conducts can be explained and conducted as any conduct that features the essential factors of addiction, salience, mood modification, tolerance, withdrawal, damage and destruction (Griffiths 2000b). They are also highly focused on an increasing element of negative results. On the same context, the existence of major sense is explained and instructed as bravery that is driven by moral values (Miller and Heather 2013).

On the other hand, and in relation to substance addiction, multiple factors require to be carefully explained to conduct and express the relations between the advantages of cyberbulling and their negative aspects. As the result of many factors relating to this subject, the literature review will explain factors regarding to the technology adoption as a solution, with a particular focus on the preparation of self-regulation systems.

Persuasive technology considers one of the largest powers that can assist users to attribute more control over their procrastination. Persuasive technology is utilized to assist change conduct through impacting and influencing rather than hard pressure (B. J. Fogg, 2002). For example, users can use social networks systems usage result by

checking and mentoring the time spent and the frequency of interaction with SNS daily. This assists to increase and elevate user's awareness about their usage and encourage them to take the action and procedures to show and explain their levels of usage better. On the same context, users might suspend as the result of advantages that SNS offer to elevate the perceived social interaction chances, in the form of "advantages" or "positive comments. Additionally, these tools in the design of SNS can be showed and referred to the user experience and create problems (A. Algashami, S. Cham, L. Vuillier, A. Stefanidis, K. Phalp, and R. Ali, 2018). For example, users might get overloaded when they get detailed usage result which might lead them to misunderstand the provided data.

As the result of reviewing of the literature, factors were depended into three aspects: individual, software and contextual. Mental disorders, such Attention-Deficit, Hyperactivity and social anxiety can also be connected to DA. (Ko et al. 2009).

Oulasvirta et al. (2011) showed and explained that checking behaviors containing on brief, repetitive inspection of dynamic content quickly accessible on the device can show and refer the habitual and thus contributing to some degree of addiction.

Regarding to software factors, it was referred that most studies treated with the Internet as one union and not shedding light on the peculiarity of the applications within this medium. However, Young and de Abreu (2011) stated that some applications might serve as factors for the attributing of continuous use. This means that patients should stop navigating appropriate websites or even certain applications. The authors shed light on important questions and gaps in knowledge. First, some applications within the Internet have particular factors built into them. So, it is still required to answer what are these applications, why they are so addictive, and also, what are these triggers and addiction-enhancing properties .

Lee et al. (2014) showed that problematic usage behaviors could be triggered by external factors such as updates notifications. Hart et al. (2008) referred those variable discoveries by "surprise, such as proposing new friends on Facebook, act as a powerful rewarding mechanism.

Young and de Abreu (2011) stated that people are expected to be accessible anytime and anywhere which can develop stress and lead to addiction. Also, the impact of

institutional environment is a known concept inspired by the famous psychological experiment called the Stanford Prison Experiment (SPE) (Zimbardo 2011).

Furthermore, there are multiple theories suggested to form a deep understanding of such problematic behavior, Davies (2001) explained that addiction is still seen as a myth. The author showed that using some empirical methods (e.g. self-reports) to explain and show the phenomenon led to confusion and the results are very vulnerable to the context of the study. In other words, addicts use different models of language to show their behavior based on the person who investigates the phenomenon. This is as the result of multiple reasons such as they tend to express compelled behavior to seek forgiveness and help when talking to police and health workers, but express a preference and personal choice when talking to peers.

In recent studies, the results showed that online modality can also have its advantages such as making people more comfortable and less intimidated (Riva et al. 2017). The benefits and features can also be in term of the effectiveness as the online space offer unprecedented features of which are real-time, interactive and even immersive (e.g. virtual reality, gamified systems, role-playing, therapy networking, and online support groups). It also recruits self-regulation by enabling self-monitoring and behavior tracking and visualization (Barak and Grohol 2011). The use of online support can't be stable as the online space becomes both the medium for the problem and solution. Also, research on the systematic design and managed interaction and usage of online peer groups is still required.

Regarding to manage procrastination, people keep good control over their procrastination and control excessive negative effects, for example by being able to resume their work at an appropriate time. However, some people fail to control their procrastination as the result of multiple factors such as their low self-control and external social pressure. Procrastination is often motivated by the desire to avoid a task and through interaction.

According to the above and in order to overcome this problem, there are many results relating to this matter, such as the followings:

- Making users more aware of how procrastination damages their productivity – explaining users to know their current attitudes by providing them with the results and instructions on how to gain more control over their procrastination.
- Having tremendous steps to acquire the desired results; assisting users to control their procrastination in different levels such as result, a more advanced stage with reminders, and then utilizing of restrictions if required.
- Flexibility to enable users to decide the appropriate techniques to overcome the negative effects such as reactance.
- Decreasing the pressure that users feel to respond to notifications while working on their responsibilities by making other contacts aware of their availability.
- Organizing other contacts' expectations, such as explaining them when they will receive a response and the time remaining for a chat.
- Monitoring and motivating users to complete the original responsibilities; for instance, using task decreasing and progress visualization.

## **Chapter3:**

### **3.1 Research Methodology**

This project has been used content analysis technique for literature review tackling the same title of project. Content analysis is commonly used methodology on these projects.

According to (Strauss and Corbin 1990, 1997) content analysis generally contains on three basic stages. The first stage begins with information about a topic such as interaction conduct in a specific context. Second is the great influence on the factors and their demands and dimensions. In the final stage, knowledge is acquired by conducting these factors and can be used to know the original behavior and make inferences about . Content analysis is a widely used technique in various

Stemler (2001) defined content analysis as “a systematic, replicable technique for compressing many words of text into fewer content kinds based on explicit rules of coding”. The purpose of content analysis is to construct the characteristics of the contents by showing who has said what, to whom and its effects (Bloor and Wood 2019). In content analysis, researchers use coding in order to identify and describe the phenomenon from the content analysis is more suited to the simple reporting of the common issues.

### **3.2 Expected Results and Their Utilization**

The main contribution of this project is to overcome the difficulties, threatening and dealing with the appropriate method with the hacking people as the result of increasing on the terror and fears among users of social networks. As the same context, this paper will help to reach at the solutions to face this phenomenon and how to appropriately

deal with the processes of cyberbullying. So I expect to show that this monitoring software informs the individuals about their using online activities by recording websites addresses and online communication (for example instant messaging). Most individual control software allows monitoring online activities. The monitoring software does not correlate with less cyberbullying victimization. On the same time, I explore that many social Web applications (e.g., Facebook and MySpace) offer the services and the possibility to report inappropriate and illegal content, for instance, by clicking a button labeled 'report abuse'. Reports are sent to community moderators that manually check the reported content and decide whether or not to remove it. Some social networking sites, chat rooms, online games, and forums also allow users to report others when they break the rules, for example, by cyberbullying. Furthermore, I will try to explore these solutions throughout the educational technology, which Education considers another approach to developing and elevating the online safety of minors.

As the same context, technology can be used to supplement education and awareness. However, it is important to emphasize that technology alone can never solve a complex problem such as cyberbullying. A combination of social, legal, and technological measures is required for best results. Technology does not have to be restrictive to influence behavior. Persuasive technology steers behavior by exerting social influence.

On the other hand, techniques contain on blocking bullying behavior online or creating panic buttons for cyber victims to use when under threat.

Price and Dalgleish found that blocking was considered as a most useful online action by cyber victims and a number of other studies have additionally found that deleting nasty messages and stopping use of the Internet were effective strategies (Price M, Dalgleish J,2010).

However, recent research by Kumazaki, Kanae Katsura et al. explained that training young people did not essentially decrease or protect cyberbullying. Clearly there is a need for further research to assess the effectiveness of different types of technological intervention (Kumazaki A, Kanae S, Katsura R, Akira S, Megumi K,2011).

Also, adults may be less effective in dealing with cyberbullying once it has occurred. Most studies confirm that it is necessary to tell someone about the cyberbullying rather than suffer in silence and many individuals report that they would ask their parents for



help in dealing with a cyberbullying incident. Some adolescents recommend not treating and discussing adults as the result of their fear of loss of advantages (for example having and using mobile phones and their own internet access), and due to their fear that their parents would simply advise them to ignore the situation or that they would not be able to help them as they are not accustomed to cyberspace.

Additionally, it is essential to take account of the bystanders who usually play a critical role as audience to the cyberbullying in a range of participant responsibilities, and who have the potential to be mobilized to take action against cyberbullying. For example, a system of young cybermartyrs, trained to monitor websites and offer emotional support to cybervictims, was positively evaluated by adolescents.

Similarly, DiBasilio explained that peer leaders in school played a part in the prevention of cyberbullying by creating bullying awareness in the environment, developing leadership skills among individuals, developing bullying intervention practices and teambuilding initiatives in the community, and facilitating individuals to behave proactively (DiBasilio A., 2008). This intervention successfully led to a decrease in cyberbullying, in that the number of individuals who participated in electronic bullying decreased, while individuals' understanding of bullying widened.

Punitive methods tend on the whole not to be sufficient in reducing cyberbullying. In fact, Interventions that work with peer group relationships and with young people's value systems have a greater likelihood of success. Professionals also need to focus on the values that are held within their organizations, in particular with regard to tolerance, acceptance and compassion for those in distress.

As Batson, Ahmad, Lishner et al. argue, empathy-based socialization practices encourage perspective-taking and elevate pro-social behavior, leading to more satisfying relationships and greater tolerance of stigmatized outsider groups. This is especially relevant to the discussion since researchers have consistently found that high quality friendship is a protective factor against mental health difficulties among bullied children (Batson CD, Ahmad N, Lishner DA, Tsang J-A, 2002).

There are many solutions to prevent the solutions, such as Report the bully to your service providers. Cyber bullying usually violates the terms of service laid out by social

media sites, cell phone providers, and other service providers. Read up on your providers' policies and take steps to report threatening behavior.

Lastly, the solutions will be within the social networks throughout searching for functionality, that increasing the possibility of happening the cyberbullying and how to replace or change or setting up the warning in order to decrease the happening of problem such as not accepting requests from strange persons, not receiving instant message, and blocking the bullies.

### **3.3 Functional feature**

There are many functions on social networks application that leading and causing the problem of cyberbullying, such as the followings: unwanted stranger contact is a traditional experience in users which may be provoked by SNS. Also, a greater ratio of SNS users explained that higher frequencies of unwanted stranger contact. It may be possible that being part of an online social network elevates the likelihood of being contacted by strangers. However, this project can't appropriately explain that SNS users who experience stranger contact, engage in further communication or build relationships with these strangers. On the same context, it is important to determine what adolescents 'do' when they are accessed by strangers online. It may be that adolescents are aware of the dangers of online strangers and simply ignore their requests for contact. So the victims must deal with these cases and taking the immediate actions to face this problem.

As the same context, some bullies start out as a friend, someone else knows well. If it seems possible to have a reasonable discussion with the person, consider asking him or her to stop. Have the conversation in person, not through email or text.

Stop responding to the bully's messages. If talking it out won't work, don't directly respond to the text messages, instant messages, emails or other communications that may have received from the bully. Bullies want to elicit a reaction from their targets, so firing back a text will only make things worse.

Block the bully. Immediately put an end to the bully's most invasive threats by blocking that person from direct communication with the victim. Once the victim made sure all prior messages have been saved.

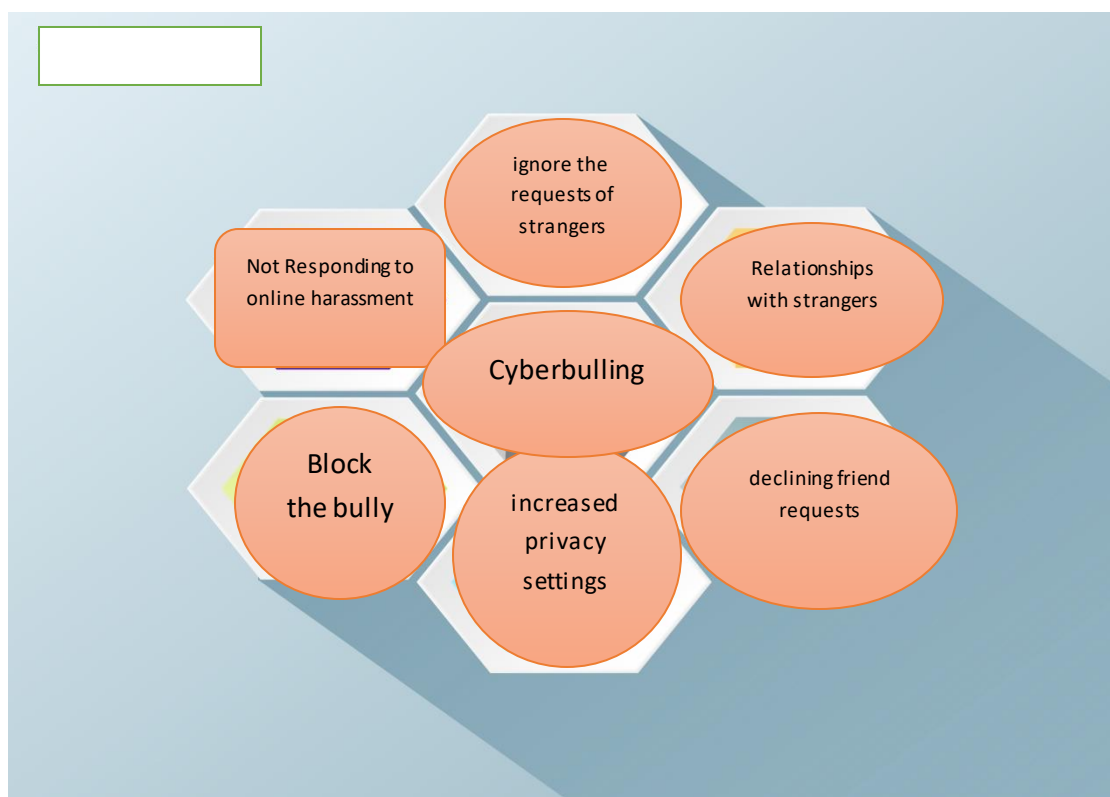
Change the account settings. Prevent the person from finding a new method to contact by restricting the amount of personal information you make available online.

Overall, the use of social media, especially SNS by teenagers, has led to an increased number of cyberbullying incidents all over the world. Many actors are involved in cyberbullying, such as the victims, peers, teachers, parents, SNS platforms and Internet providers. For cyberbullies, peer influence and possible sanctions have influence the likelihood of cyberbullying taking place (Price, M., & Dalgleish, J,2010).

Also, the internal functions of SNS, such as increased privacy settings, declining friend requests and blocking others, may offer an effective filter for controlling stranger contact. Additionally, owning a SNS profile may increase exposure to online strangers and entice youth to make more contact. As adolescence is a phase of significant vulnerability. As the same time, there is no significant relationship between time spent per day on SNS and unwanted stranger contact. Also, there are no significant correlations between SNS daily time and the frequency of other cyber-bullying actions. This suggests that the acts included in the cyber-bullying measure had no association with how much time was being spent on social networks. On the other hand, there is using SNS did not elevate the possibility of experiencing online harassment (Finger, L. R., Yeung, A. S., Craven, A. G., Parada, R. H., & Newey, K,2008). However, the cyber-bullying is a multidimensional construct. It focuses on a range of experiences from online harassment to online stalking and identity theft. Cyber-bullying is also a subjective experience; an act of cyber-bullying may induce a distressful response in one adolescent but not impact another. As such, many teens may not perceive the same actions to be acts of cyber-bullying. This is supported by the findings as many participants are unsure if being contacted by strangers was indeed an act of cyberbullying. In addition, the most frequent experiences of cyber-bullying as defined by the literature were not actually divided as cyber-bullying by the majority of participants. This focuses on the requirements of the perceptions of cyber-bullying and how it is formulated and best operationalized in adolescents. With the technology field changing so quickly, it may be difficult to find a truly appropriate measure of cyber-

bullying which explains all communication sources being used by young people and the changing movements of their social interaction. According to content analysis, determining and explaining the reactions to this experience will help reduction the potential harm related to the use of these utilities (Sengupta, A., & Chaudhuri, A,2011).

This project is to try to limit the technical functions for social networks applications, which causing the cyberbullying and finally to reach at designing interface containing the solutions and method of limiting the problem.



## **Chapter4:**

### **4.1Conclusion and Future Works**

The goal of this project is to show and explain the detection of cyberbullying on social media and how to affecting negatively on the users of these applications. Given the information overload on the web, content analysis for cyberbullying has become one of the appropriate methodologies to reach at the expected results. As the same context, this paper will help to reach at the solutions to face this phenomenon and how to appropriately deal with the processes of cyberbullying. The main contribution of this project is that it presents an interface to automatically know the cyberbullying on social media, including different types of cyberbullying, covering posts from bullies and victims. There are many functions on social networks application that leading and causing the problem of cyberbullying, such as the followings: unwanted stranger contact is a traditional experience in users which may be provoked by SNS. Also, a greater ratio of SNS users explained that higher frequencies of unwanted stranger contact. It may be possible that being part of an online social network elevates the likelihood of being contacted by strangers. However, this project can't appropriately explain that SNS users who experience stranger contact ,engage in further communication or build relationships with these strangers.

Another interesting direction for future work would be the detection of fine-grained cyberbullying categories such as threats, and expressions of racism and hate. Additionally, the dataset allows for detection of participant roles typically involved in cyberbullying.

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