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Parental Role in Protecting Children and Dangers of Social Networks Sites

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Abstract

It becomes quite clear that the modern communication technologies have been used in different aspects of life. The fast Spread of this technology is because of the ease of use it, especially after the huge turnout on multiple social networking sites nowadays. The widespread use of modern communication techniques among male and female students has been observed, and unfortunately, the number of breaches against this category is increasing. This is because of many reasons, such as, they have been not adequately trained and there is a lack of students' concern of the seriousness of information security. Although some students have a good experience to use these techniques, they are caught up in hackers' nets. In this study, the researcher conducted a comparison between many categories of families, trained and untrained students and parents, in order to know the role of parents in protecting their children from electronic breakthroughs. The study found that there is a very important role for parents in protecting their children from the electronic threats, even in cases where the sons have a sufficient educational level in dealing with these new technologies.

I. INTRODUCTION

Youth is the foundation of society development and renaissance. They are the backbone of the future. Formulate and draw the future is in their hands. The more educated and distinctive performance the society is, the more secure the society will be.

Studies have shown that most of the children are using these technologies [1] - [4]. Social network sites give children and all users a good chance to communicate with each other in an easy way. It has become one of the basics of life nowadays. But unfortunately, these sites raise many privacy and cybercrimes problems [5]. Most of the children are uninformed that they are one of hackers' targets, and they may expose to various cyber risks and privacy violations [6]. It is a well-known that most of the children are not aware of how to configure

the privacy setting due to its complexity because it needs to be familiar with how to change many setting which is not easy for children [6]. Facebook has many privacy settings, but unfortunately, it does not inform its users to change these privacy [7]. What children may know is how to limit some users to get access to their information which is not sufficient enough to protect themselves. Moreover, it has been noted that the professional students are also caught in the nets of hackers; a clear sign that training students is not enough to meet this serious challenge. Many parents pointed out the need to involve in the process of protecting children from electronic exploitation. It has been shown through practical experiments that it is possible to manipulate the emotions of the students and then blackmail them even

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with a professional knowledge level in the use of these techniques.

The researcher has addressed essential axes and numerous questions in order to identify the level of qualification for parents in dealing with modern communication techniques, and know the parents' role in protect their children from falling into the nets of hackers. Researcher provides a questionnaire of two groups of questions.

Next section is about the methodology of performing this study. Related works is in section 3, where discussion has been shown in section 4. Conclusion and future work in the last section.

II. RELATED WORKS

By literature review, the researcher tried to find the degree of children's interest of using internet and social media in different cultures. And on the other hand, the researcher was trying to find studies which tack about parents' believes of the seriousness of their children's brows on the internet. And finally, find the role of parents in protecting the children was under the researcher's focus.

Author's in [1] mentioned that 96% of European children use the Internet permanently. In Sweden, [2] shows that more than 90% of the families and their children use the internet. Children in Turkey have the same passion, where [3] showed that most of the children in Turkey are using the internet from different places such as home, Internet cafes, school, library and while visiting their friends. In USA, the majority of the children who are not more than 18 years old are internet users, and the majority of them have a personal computer at home (Rideout, 2010) [4].

Hamade [8] Indicated that the majority of parents are moderately aware of their children's online activities, and they don't enough follow their children. This study shows that only 12% of the parents are highly mediating in their children's use of the Internet. With the increasing use of the internet by children, parents become worried and concerned about getting negative values. Many families have indicated that they are not comfortable about what their children may brows by internet such as websites showing sexual or violent content, giving their private information or pictures and exposure to extortion attempts. [3], [9],[10]. Moreover, Author's in [10], [11] conducted a survey and showed that 65% of parents are expecting that their children may see porn images and

videos on the internet, and 60% of the parents Afraid of luring their children. The previous study shows that the parents worried about expose their children to psychological harm or bullied. [11] Pointed to a very important point that parents who use the Internet are less afraid than parents who do not use this technology.

Author's in [12] shows that students suffer from week level of qualification in terms of safety. Moreover, Parents should pay more attention to students to protect them from electronic danger, the study said. In addition, teachers should allocate more time and more educational materials related to cyber bullying and how to stop the penetrations attempts in order to teach their students how to protect themselves. [L.8-10] shows that most of the parents are trying to check what their children brows on the internet. They stay near to them just to follow which website they visit or what they download from the internet. Parents need to be well qualified to get the benefits of these following up.

The fear and the worries of parents have been observed. It is clear from the previous study that parents are trying to spare their children any of the electronic hazards. Researcher believes in the importance of the role of parents in protecting their children from any electronic dangers. Next section is about the methodology of performing this study.

III. METHODOLOGY

Two groups of questions have been raised in one questionnaire. The first group of questions is to identify the level of knowledge of parents regarding the safe use of modern communication techniques, were the second group of questions is to clarify the parents' role in protect their children from falling into the nets of hackers.

The sample of this study was chosen to be multiple families that are living in Kingdom of Saudi Arabia due to the multiplicity of cultures that inhabit there. This study chose two main axes as follows:

A. the level of qualifying for parents in dealing with modern communication techniques.

B. The role of parents in following up and protecting their children from falling into the trap of infiltrators.

Several questions have been raised to answer these axes aim to find out parents' qualifications and their role in protect their children. By answering these questions, the study aims to have recommendations that will reduce the ability of hackers. These questions are described as follows:

A. What is the level of qualification of parents and



TABLE I
STUDY PROPERTIES

Educational Level	Frequency	Percent
Uneducated	40	10%
Schools	207	52%
Bachelors	153	38%
Total	400	100.0
Educational Level	Frequency	Percent
High	22	5.5%
Middle	57	14.2%
Poor	312	78%
Total	391	97.75%
Missing	9	2.25%
Total	400	100.0%

children regarding the use of modern communication techniques?

B. Is there a role for parents in following up and protecting their children from the danger of social networking sites?

According to official statistics, there are 8 million persons are living in the capital of Saudi Arabia; this mean that the number of families are almost 1.3 million. Based on monkey survey, the number of sample required to study should not be less than 390 cases, were the number of implemented samples are 400. Survey based on two characteristics; the level of parents' education and their Rehabilitation in dealing with the social network sites. Table I shows the involved numbers of these characteristics and the ratios of each property.

Characteristics of the study were analyzed. One of the most important results from this analyzing is that 52% did not complete their studies and 10% were uneducated. In addition, with regard to the rehabilitation of parents in using the internet and social networks sites in a save mode, it was found that 78% of the parents suffered from a low level of rehabilitation, were only 1.75% have been rehabilitated in how to use modern communication techniques as shown in Table I.

IV. RESULTS AND DISCUSSIONS

The first axis in this study is to know the qualification level of parents in using the internet and social networks sites. The researcher has formulated ten different questions to serve this goal. An important result from the selected sample has been

TABLE II
ANALYSIS OF AXIS ONE

Questions	Min	Max	Mean	SD
I have an account in a social networking program	1	3	2.6	0.34
I can build a new account on social networking sites	1	3	1.2	0.54
I am using a password to protect your device	1	3	1.3	0.23
I change my password periodically	1	3	1.4	0.31
I am using protection software?	1	3	1.2	0.37
I don't accept online friendship requests from anonymous people	1	3	2.6	0.29
I don't accept online friendship requests from anonymous people	1	3	2.4	0.45
I know the methods of extortion and electronic penetration	1	3	1.2	0.42
I use the free Wi-Fi internet service in public places	1	3	1.4	0.45
I use to check the device and make sure it is free of any electronic spy programs	1	3	1.5	0.31

found; more than 80% of parents have an electronic account, but unfortunately, 87% of parents cannot build an account in any of social networks sites. The majority of them do not use password, which give a very bad indication. Around 97% of parents don not know about the protection software. Most of them afraid to accept anonymous friendship, but 75% of them accept files from internet. Moreover, 89% of parents prefer to use a free wifi in public place. This percentage shows a very low level of the way of using the modern communication techniques, which will cause expose parents to many attempts of penetration and extortion.

The standard deviation is used to determine the dispersion rate of the responses, and gives indication about homogeneity of the answers. Table II shows the arithmetic mean and the standard deviation level for each question. Note that Min and Max columns Indicates the degree of approval "1" is the lowest approval score and "3" is the most approval levels. SD is Standard Deviation.

Researcher found that the level of rehabilitation for parents is very low.

As shown in Table II, the level of standard deviation refers to the one-way agreement, which is represents that most parents suffers from poor level of qualification in the use of the Internet and modern communication techniques. Fig. 1 represents a graph of the level of standard deviation where it appears in a horizontal line to a large extent, indicating the general consensus on these disaggregated answers.

Table III shows the general level of parent's rehabilitation in how to use the internet and social networks sites; it is 1.578 out of 3, which is very low. Fig. 1 also shows the general average of the standard deviation of the first axis, which is only 0.37, indicating that the amount of data dispersion was very small; the turnout shown, is very close to the truth.

The second axis focuses on role of parents in their ability to protect their children. We found that 92% of parents don't know their children's' account. In addition, most of them don't follow the activities of their children. Only 31% of parents send their children some advices related to cyber security. Only 5% of parents can follow their children's devices remotely. Only two educated families stopped attempt to extort their children electronically, were many extortion attempts have been taken place and many children have been affected. Table IV shows the arithmetic mean and the standard deviation level for each question.

As shown in Table IV, the level of standard deviation refers to the one-way agreement, which is represents that Parents are not able to monitor and protect their children despite that most of them are educated. Fig. 2 represents a graph of the level of standard deviation where it appears in a horizontal line to a large extent, indicating the general consensus on these disaggregated answers.

Table V shows the general level of parent's ability to protect their children from attaching or attempt of extortion. Their ability to help their children is 1.367 out of 3, which is very low. Fig. 2 also shows the general average of the standard deviation of the first axis, which is only 0.35, indicating that the amount of data dispersion was very small; the turnout shown, is very close to the truth.

Table VI shows the impact of the rehabilitation of parents on follow-up the online performance of their children, and their ability to help them get rid of any attempt to penetrate extortion.

From Table VI, we can see that 17 Parents know exactly the details of their children's accounts. In contrast, parents who are not rehabilitated know nothing about their children's accounts. This gives an indication of the

Table III
GENERAL AVERAGE OF AXIS ONE

Axis1	Min	Max	Mean	SD
The level of qualifying for parents in dealing with modern communication techniques	1	3	1.578	0.37073

Table IV
ANALYSIS OF AXIS TWO

Questions	Min	Max	Mean	SD
I know my children's electronic accounts	1	3	1.4	0.22
I follow the activities of your children	1	3	1.2	0.24
I used to share my children advices related to how to user the social networks program	1	3	1.3	0.23
I use electronic follow-up programs to monitor my child's device remotely	1	3	1.4	0.42
I saved my children and prevent the penetration of my child's device	1	3	1.2	0.38
I saved my children and prevent extortion attempt	1	3	0.5	0.31
I believe that my child's level of qualification is sufficient for the safe use of social networking sites	1	3	2.5	0.42
my children has been subjected to electronic extortion	1	3	1.2	0.44
My children usually tell me most of what he face on social networks	1	3	1.4	0.51
I am concerning about my children's use of social networking sites	1	3	1.6	0.29

Table V
GENERAL AVERAGE OF AXIS ONE

Axis2	Min	Max	Mean	SD
The role of parents in following up and protecting their children from falling into the trap of infiltrators	1	3.00	1.367	0.35



TABLE VI
ANALYSIS OF AXIS TWO

Questions	Parents' rehabilitation level		
	High	Middle	Middle
I know my children's electronic accounts	17	10	0
I follow the activities of your children	15	13	28
I used to share my children advices related to how to use the social networks program	20	33	102
I use electronic follow-up programs to monitor my child's device remotely	8	0	0
I saved my children and prevent the penetration of my child's device	5	1	0
I saved my children and prevent extortion attempt	5	1	0
I believe that my child's level of qualification is sufficient for the safe use of social networking sites	16	40	217
my children has been subjected to electronic extortion	12	5	3
My children usually tell me most of what he face on social networks	19	20	180
I am concerning about my children's use of social networking sites	3	43	300

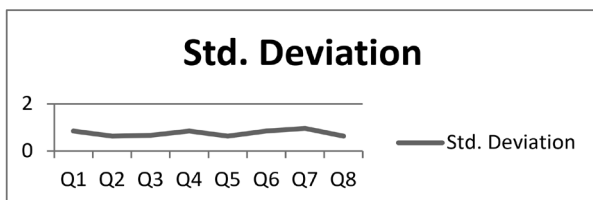


Fig. 1. Standard Deviation of axis 1.

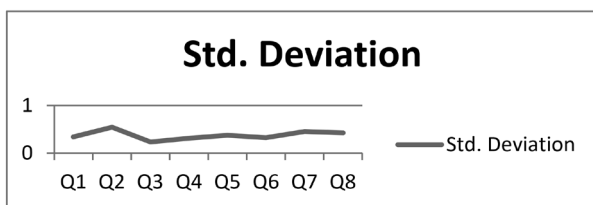


Fig. 2. Standard Deviation of axis 2.

inability of parents and the lack of their role in protection of their children because of the lack of rehabilitation. Moreover, Table VI shows that 15 of 22 rehabilitated parents can follow their children's movements on the Internet, 8 of them noted that they use electronic follow-up techniques. In contrast, only 28 out of more than 300 unqualified parents claim to be able to follow their children, and none of them uses electronic follow-up techniques. Moreover, five of rehabilitated parents indicated that they had save their children from extortion and penetration attempts, and only one parent of moderately qualified parents, while unqualified families had no role in this. This is a clear indication of the importance of the role of parents in protecting their children and the required rehabilitation. With regard to parents' confidence in their children's knowledge and behavior during the use of the Internet and modern communication techniques, 16 qualified parents indicated that their children are well-qualified, yet 12 of them have been exposed to extortion attempt. In contrast, 217 unqualified parents indicated that their children were distinguished in dealing with this technology, and 3 of them expose to extortion attempts. Fig. 2 shows that these parents are not aware of what their children are subjected to penetrate attempts. Where it is not reasonable for 22 qualified parents to be subjected to five attempts and in contrast only three attempts for more than 200 unqualified parents. It was clear from the statistics of the last question that the concern of qualified parents are far less than that of the unqualified.

The researcher had an opportunity to talk to some parents while filling in the questionnaires. And he saw the importance of presenting some of the dialogue with group of parents. As follows.

Most parents pointed out that their observation is only by seeing what their children is announced on Facebook and they do not know that his device can be monitored electronically. "We know that there is a clear risk from the internet, but we don't follow-up our children because we don't know how", most of parents said. They believe that their sons are more qualified than they are, so that "our children have a good ability to hide a lot from us", they said. These lead parents to be very worried. It was clear from the meeting with their children that the communication between parents and kids are not good as a result of children's conviction that their parents do not know how to deal with these techniques. When asked about his parents' help, he said: "They advise me many times, but in fact, they do not know how to use the details of these devices".

In a complete contrast, few parents pointed that they are fully aware of how to follow sons' devices.

Researcher found that few are qualified to follow up their children and protect them from the dangerous of the internet. Father noticed that he used some applications to remotely monitor his son's device; he could follow all the sites visited by his children in order to protect them against any extortion attempts. The father noted that he was not too afraid and things are followed very carefully and professionally. In a meeting with their children, the children indicated that they trusted their parents a lot and feel the importance of their helps. They confirmed that he turns to their parents in case of any suspicion.

It is clear that there is a positive relationship between the level of rehabilitation of parents and the level of communication between them and their children, on the other hand, the more qualified parents whenever the fear of the effects of these techniques less.

With regard to the attempts to children extort; Some children have indicated that they have been subjected to extortion attempts despite their parents' affirmation that their children are telling them all the details of these attempts, but unfortunately, this is was not right. Three children from different families indicated that they had been blackmailed while their parents were not aware of it. Fifteen families indicated that they did not know if their children had been blackmailed or not. On the other hand, qualified father pointed out that he intervened to protect his children from two attempts; some of his son's friends tried to send some malicious programs to his son's devices, and he intervened to prevent this. The father adds that I intervene directly when I notice any suspicious electronic behavior on my child's devices. He confirms that he might lose his children if he did not follow their children periodically. Researcher can confirm that despite the good son's qualification for the use of this technique, the role of the father is of great importance in protecting his children from the danger of electronic attack. Protecting children from the threat of cyber terrorism requires the involvement of both children and parents.

There are many important observations have been concluded from the previous cases. The first important observation is, although most of the parents are well educated, it difficult to find qualified families that know how to follow-up their children's online transactions. Only few qualified parents have been found. The low level of qualification for both parents and children has been observed. In addition, some of the families are not care of follow-up their children's online transaction because parents believe that build a trust between them and their children is better than watching them. Unfortunately, trust does not sufficient to protect the

children, because hackers have high skills to play with the feelings of children and luring them to what is very dangerous. This is a clear indication about the parents' lack of awareness of the danger of leniency in such a matter. It has already been clear that there is a clear separation between parents and children in many families under the meaning of trust.

V. CONCLUSION AND FUTURE WORK

The purpose of this study is to examine the importance of the parents' role in protecting their children from internet hacking and dangers of modern communications technique. To achieve this goal, the researcher conducted a questionnaire aiming to identify the rehabilitation level of parents and their role to protect their children against any penetration and extortion attempts. Parents characterized by different levels of qualification in dealing with the Internet and modern communication technologies. The researcher concluded two completely contradictory cases; the first represents families are qualified to deal with modern electronic technologies, and the second are group of families which are not qualified to deal with these technologies. After conducting comparisons and analyzes among these different families, the researcher found that parents must be involved to protect their children from the risk of penetration and eliminate the possibility of being subjected to extortion.

As a future work, the suggestion is to provide project which targets students in middle and secondary levels, as well as parents. This project aims to train students on the safe use of the social communication and the Internet through training courses designed very carefully. This program will depend on the implementation of simulated training system using several practical scenarios. On the other hand, the project will be based on qualification and training for parents on the possibility of follow-up to their children electronically.

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