

La cultura sobre seguridad informática en las redes sociales:  
el caso de los estudiantes de la Preparatoria de San Diego  
Cuentla, México

*The culture on information security in social networks: the case of students of  
San Diego Cuentla High School, Mexico*

*A cultura de segurança nas redes sociais: o caso dos alunos da Escola de San  
Diego Cuentla, México*

DOI: <http://dx.doi.org/10.23913/ricsh.v6i11.106>

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## Resumen

El objetivo de la investigación fue conocer la cultura en seguridad informática con respecto al riesgo que genera el uso de las redes sociales en estudiantes de la Preparatoria 193 ubicada en San Diego Cuentla, Estado de México, específicamente en 44 alumnos de ambos sexos de primer grado, turno matutino, con 14 y 15 años de edad.

Para ello se utilizó metodología descriptiva y un cuestionario de diez preguntas cerradas. posteriormente se procesó la información en el paquete SPSS calculando las frecuencias de uso, lo que permitió conocer cuáles eran las redes más populares entre los estudiantes y sus riesgos.

La gran mayoría de los alumnos (91 %) pertenece a alguna red social, especialmente Facebook con 48 %; asimismo, 59 % conoce los controladores de configuración, 54 % comparte información sólo con sus amigos, 36 % nunca cambia sus contraseñas y 95 % no publica dónde se ubica y qué hace. Por otro lado, 82 % dijo que no se cerciora de haber cerrado su sesión, 73 % que sí sabe de los riesgos a los que está expuesto y 66 % que ya conoce los delitos que se cometen en las redes sociales, en especial cyberbullyng (32 %).

Se detectó que a los estudiantes les falta cultura sobre el uso de las redes sociales, lo cual los pone en situación de riesgo.

**Palabras clave:** cultura, seguridad informática, factor de riesgo, redes sociales, estudiantes, preparatoria.

### Abstract

The objective of the research was to know the culture in information security with respect to the risk that the use of social networks in students of the High School #193 located in San Diego Cuentla, State of Mexico, specifically in 44 students of both sexes of Freshmen, morning shift, with 14 and 15 years old.

For this purpose we used descriptive methodology and a questionnaire of ten closed questions. Subsequently the information was processed in the SPSS package calculating frequencies of use, allowing you to know what were the most popular networks between students and their risks.

The vast majority of students (91%) belongs to a social network, especially Facebook with 48%; likewise, 59% known configuration drivers, 54% share information only with their friends, 36% never changes their passwords and 95% do not publish where they are located and what they do. On the other hand, 82% said that not sure having closed its session, 73%, who knows of the risks to which it is exposed and 66% that already knows the crimes that are committed in social networks, especially cyberbullyng (32%).

We detected that the students have a lack culture on the use of social networks, which puts them at risk.

**Key words:** culture, computer security, risk factor, social network, students, high school.

### Resumo

O objetivo da pesquisa foi conhecer a cultura em segurança de computadores em relação ao risco gerado pelo uso de redes sociais alunos da Escola 193 localizadas em San Diego Cuentla, Estado do México, especificamente em 44 estudantes de ambos os sexos de primeiro grau , turno da manhã, com 14 e 15 anos de idade.

Por esta metodologia descritiva e questionário de dez perguntas fechadas foi usado. posteriormente as informações no pacote SPSS foi processado através do cálculo da frequência de utilização, permitindo saber o que as redes mais populares entre os estudantes e seus riscos eram.

A grande maioria dos alunos (91%) pertence a uma rede social, especialmente o Facebook, com 48%; Além disso, 59% conhecem a configuração motoristas, 54% compartilha informações apenas com amigos, 36% nunca mudam suas senhas e 95% não publica onde ele está localizado eo que ele faz. Por outro lado, 82% disseram que não tem certeza de ter desconectado, 73% que sabem dos riscos aos quais está exposta e 66% já conhece os crimes cometidos em redes sociais, especialmente cyberbullyng ( 32%).

Verificou-se que os alunos não têm cultura sobre o uso de redes sociais, o que os coloca em risco.

**Palavras-chave:** cultura, segurança, fatores de risco, as redes sociais, estudantes, escola.

**Fecha recepción:** Junio 2016

**Fecha aceptación:** Diciembre 2016

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## Introduction

The Internet has grown more and more all over the world and, therefore, also the risk of that is misused due to lack of information.

The largest social network in our country is still Facebook, followed by WhatsApp, where 8 of every 10 Internet users, who, on average, are enrolled in five social networks (AMIPCI, 2016).

The management of social networks offers multiple advantages, among which is that it facilitates the search for information and interaction between students; on the other hand, a disadvantage would be that they may be victims of harassment. The use of the social network Facebook, the most popular among the students, increases the risks to which they are exposed.

San Diego high school, case study, is located on the road to Toluca-Zihuatanejo 75.5 Km with an average of 240 students, who applied to an instrument that showed that 91% use at least one social network.

## **Advantages And Disadvantages of Social Networking**

### **Disadvantages**

The book *Technological Resources in Educational Contexts* (Maria, Cristina, and Jesús, 2016) lists the following disadvantages:

- Impartiality, since anyone can easily create a false identity.
- Lack of veracity, because the information available is not always reliable.
- Lack of productivity, due to high levels of dependency and isolation.
- Numerous cases of child pornography and pedophilia.
- Harassment by persons known or unknown.
- Failure to respect laws, even in unintentional way.

### **Advantages**

The Catholic University of Valencia (2016) mentions the following advantages:

- It facilitates interaction between students: social networks can increase collaboration among different classmates, since it is very easy to establish ways of communication and dialogue that can work in a collaborative project.
- It facilitates the search for information: most blogs and websites that publish content of value spread it in social networks, by that reason can find high value information that helps in the preparation of academic papers.
- It facilitates the sharing of resources and content: social media is a fantastic vehicle so that any student can disseminate resources or content, and thus contribute to the creation of a library.
- It generates debates and activities on a specific topic: until appeared social networks was discussed online through forums, but since their arrival is the best tool for discussion. There are social networks like Twitter, where you can follow discussions according to hashtag, so anyone can weigh in on the topic.

- It allows communication with professionals of any subject: through the networks the students can communicate with teachers of their own educational institution or different ones in a matter of seconds.
- It streamlines the learning process: teachers increasingly use networks as a tool, which favors learning.
- Encourages and promotes research: access to large volumes of information generated by professors and professionals from all over the world encourages research and deepening of a specific topic.

## **MOST KNOWN SOCIAL NETWORKS**

According to Forbes (2016), the best-known social networks are:

- Facebook
- YouTube
- FacebookMessenger
- Twitter
- Google+
- WhatsApp
- Instagram
- LinkedIn
- Pinterest, etcétera.

## **RISKS IN SOCIAL NETWORKS**

According to Ellen, Temmy, and Martin (2014), risks fall into three categories:

- The first describes the content risks. A typical example of provocative content that adolescents may encounter on social networks are hate messages. These messages can be quite straightforward, like state updates or aggressive publications on someone's wall, but they can also be indirect, for example, by joining hate groups. Adolescents also need to develop critical skills to judge the reliability of information. Wrong information that could appear on the networks may be intentional, for example, a gossip posted by other users, or involuntary. The latter can occur when someone publishes a joke that can be misinterpreted as truthful information. Typical examples include articles from satirical magazines published on the wall of a social network.

- The second category of risks includes contact risks, which are those that have their origin in the fact that social networks can be used as a tool to communicate and establish contact with others. Along with instant messaging, networks are the most popular means used for cyber-harassment, whether through chat, by posting offensive messages or by creating hate group pages. In addition, they can also be used to solicit sexual services, as seen in the process of recruiting children, where an adult with sexual intentions manages to establish a relationship with a child through the Internet. On the other hand, users are faced with privacy risks given the large amount of personal information they post online. Likewise, 29% of adolescents maintain a public profile or ignore the configuration of their privacy, and 28% opt for a partially private configuration so that friends of their friends can see their profile.
- The third category of risks contains commercial risks. These include the misuse of personal data. Information can be shared with third-party companies through applications, just as you can track user behavior to provide you advertisements and social advertising targeted to your profile. All these risks pose a threat, as there are studies that indicate that exposure to online risks causes harm and negative experiences in a significant number of cases. Internet harassment is seen as a major public health problem, with perpetrators doing Faced with multiple problems, including a mediocre relationship between parents and children, drug use and delinquency. In addition, some theories predict that adolescents are less likely to recognize the risks and future consequences of their decisions. They were also found to have more difficulty controlling their impulses and to have higher levels of search for emotions and disinhibition than adults. This could increase the risk that teenagers assume, especially because posting photos and interests helps to create and reveal the identity of the individual.

## **MATERIALS AND METHODS**

The investigation of the present work was carried out in the locality of San Diego Cuentla, in the Municipality San Simón de Guerrero, State of Mexico, located to 90 Km of the capital Toluca. Official High School No. 93 is located on the Toluca-Zihuatanejo Km 75 road (googlemaps, 2016).

The size of the population of this high school is 240 students, but only those of first grade were taken into account: 44 students of both sexes in ages of 14 and 15 years (information provided by the principal).

The instrument was ten closed questions prior to the pilot test. Once it was corroborated that there was no doubt about it was proceeded to its application. Subsequently, the information was processed with the SPSS version 17 package, and the frequencies of use were calculated.

## **RESULTS**

Item 1. Do you have a social network?

40 answered yes and 4 no, representing 91 and 9% respectively.

- Item 2. In which social networks do you participate?

21 said Facebook, 4 WhatsApp and 15 more than one social network, representing 48, 34 and 9% respectively.

- Item 3. Do you know the configuration controls of your social network?

26 answered no and 18 yes, ie 59 and 41% respectively.

- Item 4. How do you share your information?

24 students answered that they do it only with their friends, 10 with the general public, 6 never publicly, 3 only I, and 1 with their family, that is, 54, 23, 14, 7 and 2% respectively.

- Item 5. How often do you change your social network passwords that you use?

10 said every year, 16 never changed, 9 every six months and 9 every month. This means 36, 23, 21 and 20% respectively.

- Item 6. Do you usually publish where you are and what you do?

42 said yes and 2 did not, which means 95 and 2% respectively.

- Item 7. Do you make sure that you have closed your session correctly?

36 students answered yes and 8 yes, that is 82 and 18% respectively.

- Item 8. Do you know the risks to which you are exposed when using social networks?

32 answered yes and 12 no, that is, 73 and 27% respectively.

- Item 9. Have you heard of the crimes that are committed in social networks?

29 students answered yes and 15 did not, representing 66 and 34% respectively.

- Item 10. Do you know or have you heard of any risk?

19 said they knew more of a risk, 15 mentioned cyberbullying, 5 cyber-harassing, 4 who did not know any and 1 grooming, representing 43, 34, 12, 9 and 2% respectively.

## **DISCUSSION**

In the present investigation it was found that Facebook is the network most used by students of the San Diego Cuentla High School. Also, the networks most visited by young people and that have grown more during the last years are: Facebook, MySpace and Twitter (Roxana, Atilio, Vanina, and Florence, 2010). The age range in which social networks are most commonly used is from 11 to 30 years, which coincides with the results of the present research carried out in high school, whose students are between 14 and 15 years of age.

According to the AMIPCI (2016), social networks have 75% of Internet users, of which 92% are on Facebook. This coincides with the result of the social network most used by high school students.

Likewise, according to studies carried out by the National Observatory of Telecommunications and S. I (ONTSI, 2011), only 10% of social network users use them frequently to share texts in Spain. If this is compared to high school research, the percentage is higher (54%) but sharing any type of information.

Users are not fully aware that their personal data will be visible to anyone (Mary, Virginia, and Emilio). If this is taken into account, students at San Diego Cuentla High School should receive information to prevent misuse of social media.



## CONCLUSIONS

It is necessary to disseminate more information in the young people about security when using the social networks, since although they affirm to know the risks the majority continues publishing its location and what it does, and does not make sure that it closed the session correctly, Which generates a situation of vulnerability.

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