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Cyberspace and Cyber Crime –towards Modeling Behavior and Controlling Action.

الفضاء السيبراني و الجريمة الإلكترونية۔ نحو نمذجة السلوك و ضبط الفعل.

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Abstract

The digital revolution has spawned public cyberspaces that have attracted many segments of society in its various sects, and social networks are a haven for these segments to guide for the purpose of accessing their media and informational contents. They have also become a platform for interaction, dialogue communication, messaging and knowledge sharing in various fields. However, despite the bridges of communication and the horizon opened by social media networks and sites, they have been used as a breeding ground for cyber crimes that translate the behavior of their visitors and arrivals. In this regard, we seek, through this research paper, to attempt to identify the negative effects resulting from the irrational and unsupervised use of users of electronic communication networks, and its outcome in perpetrating violence and cybercrime.

Keywords: **Cyberspace, Cybercrime, Violence, Negative Effects.**

ملخص

أفرزت الثورة الرقمية فضاءات سيبرانية عمومية استقطبت فئات المجتمع بمختلف أطيافه، وتشكل الشبكات الاجتماعية ملاذا تهتدي إليه هذه الشرائح للاطلاع على مضامينها الإعلامية والمعلوماتية، كما أضحت تمثل متنفسا ومنابرا للتفاعل والحوار والتواصل والتراسل وتبادل المعارف في مختلف المجالات. بيد أنه وعلى الرغم من جسور التواصل والأفق التي فتحتها هذه الشبكات والمواقع فقد تم استخدامها كمرتع ومسرح لارتكاب الجرائم الإلكترونية التي تترجم سلوكيات مرتاديها والوافدين إليها. وفي هذا المنحى نسعى من خلال ورقتنا البحثية هذه إلى محاولة الوقوف على الآثار السلبية الناجمة على الاستخدام اللاعقلاني واللارقابي لمستعملي شبكات التواصل الإلكتروني ومآل ذلك في ارتكاب العنف والجرائم الإلكترونية.

الكلمات المفتاحية: الفضاء السيبراني، الجريمة الإلكترونية، العنف، سلبيات الاستخدام.

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1. Introduction:

The electronic communication spaces are represented in those sites that form huge electronic communities, as they provide a set of services that would support communication and interaction between members of the social network through the means and services provided, such as: acquaintance, friendship, messaging, instant chat, and the creation of groups of interest and pages for individuals and institutions participating in events and occasions, and sharing media with others such as photos, videos, and software.

2. The Electronic Communication Spaces:

2.1. Cyberspace:

Cyberspace is defined as the world of a virtual computer, or the electronic means used to facilitate communication over the Internet. Cyberspace includes a large computer network consisting of several computer sun-networks spread all over the world. Cyberspace relies on the TCP/ IP protocol; to facilitate the exchange of data and files to communicate effectively between a wide range of users, allow them to exchange information and ideas; participate in various discussions or social forums, and play games through easy-to-use modes and many other services. (techopedia, 2020).

2.2. Social Networks:

Social networks is a term given to a group of websites on the Internet that emerged with the second generation of the Web or what is known as: Web 2.0 that allows communication between individuals in a virtual community environment that brings them together according to interest groups or networks of affiliation (country, university, school, company... etc.) All this is done through direct communication services, such as sending messages or viewing the personal files of others and knowing their news and information that they make available for display. Social networking sites are classified within Web 2.0 sites because they depend primarily in their operation and feeding their contents on their users. (Hosny, 2019).

2.2.1. The Emergence of Social Networks:

The late nineties is the first beginning of the emergence of social networks such as: classmates.com in 1995 between classmates, and the sixdegrees.com in 1997 which site focused on direct links between people.

The personal files of users and the service of sending private messages to a group of friends appeared in those sites.

Although these sites provide services similar to those found in current social networks. However, they were unable to generate profit for their owners and were closed. Then, a group of social networks appeared but couldn't achieve great success between the years 1999 and 2001. By the beginning of 2005, a site with more page views than Google appeared. Which is "My Space" the famous American. It is considered one of the first and largest social networks in the world, with its famous competitor "Facebook" which also began to spread parallel to "MySpac" until 2007 when Facebook made it possible to create applications for developers, and this led to an increase in the number of Facebook users. It is believed that their number currently exceeds 200 million users worldwide (Amani, 2010).

2.2.2. Social Networking Sections: It is divided into three sections: (Amani, 2010)

a- Personal Networks:

They are those that are limited to a group of friends and acquaintances that work on social communication among themselves in all forms, where files of personal photos and social events are made available between them on a regular basis to communicate and establish a social life through these networks. These sites are numerous and a lot, and you may find closed sites for a certain class of friends and for such matters. There is a site that is the first of its kind, where it was created to put the sad memories of members who lost a loved one and who can post their own elegies and upload photos and videos. This site is for the purpose of sharing sorrows and memories (tributes 5). A number of other sites specialize in a specific language, such as Hindi, Pakistani, and others.

b- Networks for Specific Subject Groups:

These networks were established in order to gather some people interested in specific subjects, such as those interested in medicine and engineering, and networks interested in books and libraries, such as: Library thing, or networks that participated in distance education for some schools and different cultural networks.

c- Professional Networks:

It has appeared and spread recently due to the presence of unemployment and the need of countries around the world to activate work and use this advanced technology to create a work environment and a useful and professional training environment, receive CVs for participants with the reception of an employment request by companies, and provide services at the level of various professions…. The most famous of these networks is Linked in.

2.2.3. The Most Important Social Networks in the World:

a- My Space:

This site provides social networking services on the web, as it provides an interactive network between friends and those registered in the service, in addition to other services such as blogs, publishing pictures, music, videos, mailing groups and profiles of registered members. The company's headquarters is located in Santa Monica, California, in the United States of America. While the headquarters of the parent company is located at: "News Corporation" in New York. According to Alexa Internet, MySpace is the sixth most popular English website in the world, and the sixth most popular website written in any language in the world. It is also the third most popular website ever in the USA. The site's popularity has gradually increased more than other similar sites, and it has won 80% almost from the calculated visits to social networking sites on the Internet, it has become an important part of contemporary popular culture, especially in English-speaking countries.

b- Facebook:

It is a social networking website that can be accessed for free, and it is managed by Facebook Limited Liability Company as a private property of it, where users can join networks organized by the city, workplace, school or region, in order to connect with others and interact with them. Users can also add friends to their friends list and send messages to them. They also update their profiles and introduce themselves to friends. The name of the site refers to the photo directory that colleges and preschools in the USA offer to faculty and new students, which includes, according to campus members, as a means of getting to know them.

Mark Zuckerberg co-founded Facebook with Dustin Moskowitz and Chris Hughes, who majored in computer science and were Zuckerberg's companions at Harvard University. The membership of the site was initially limited to students. Harvard University, but then expanded to include other colleges in the city of Boston, Ivy League and Stanford University. Then the site expanded to include any university student, then high school students. Finally, anyone aged 13 years and over the site currently has more than 750 million users worldwide.

A lot of controversy has been raised about the "Facebook" site over the past few years. The use of the site has been banned in many countries during varying periods, as happened in Syria and Iran. The use of the site has also been banned in many employers in order to urge employees not to waste time using it. Privacy was also one of the problems faced by the site's visitors. Facebook is also facing several lawsuits from a number of Zuckerberg's former associates who allege that Facebook relied on stealing their key code and some other intellectual property.

c- Twitter:

It is a social networking site that offers a microblogging service that allows its users to send updates Tweets about their status in a maximum of 140 characters per message. This can be done directly via Twitter or by sending an SMS or instant chat programs or applications provided by developers such as: Facebook, Twitterbird, Twitterrific, Twhirl and the Twitterfox. These updates appear on the user's page and friends can read them directly from their home page or increase the user's profile. Replies and updates can also be received by e-mail, and a summary of events RSS and via SMS.

The site appeared in the early 2006 as a research development project conducted by Obvious, the American company in the city of San Francisco, and then the company officially launched it for users in general in 2006. Then, the site began to spread as a new service on the scene in 2006 in terms of providing micro-blogging. In April 2006, the company, Obvious, separated the service from the company and formed a new company in the name of Twitter.

d- The YouTube:

It is a well-known website that specializes in video sharing. It allows the user to upload, watch and share videos for free. It was founded in February 2005 by three former PayPal employees: Chad Heerlin, Steve Chen, and Jawed Kremen in San Bruno and San Mateo, California. It uses Adobe Flash technology to display animated clips. The site's content varies between movie and TV clips, music clips, videos produced by amateurs and others.

e- LinkedIn:

It is a business related social network founded by Hoffman Reid. It was established in December 2002, and is headquartered in Saint Monica, California. It started its business in May 2003. It is used to establish professional networks. It is used by more than 120 million registered users in more than 200 countries and regions around the world. The site works in English, French, German, Italian, Portuguese, Spanish, Romanian, Russian, and Turkish.

f- Orkut:

It is a social network owned by Google. It was established in January 2004.

g- Wikipedia:

This term is derived from the English word Wikipedia and it is an acronym for both Wiki (means collectively edited blogs) and the word Encyclopedia (means an encyclopedia). Wikipedia is a multilingual, web-based, free-content encyclopedia that enables its users to create, edit and modify articles and materials published in the electronic encyclopedia. Articles on Wikipedia are written collaboratively by volunteers from around the world. The number of articles in March 2009 reached 10 million articles written in 270 languages.

2.2.4. Types of Social Software:

a- Blogs:

In its simplest form, it is a page from the Internet on which posts appear (entries) dated and arranged in ascending chronological order, accompanied by a mechanism for archiving old entries, and each entry has an electronic address (URL). It is permanent and does not change from the moment it is published on the network, so that the user can refer to a

specific post at a later time when it is no longer available on the first page of the blog.

They are web pages containing short general articles organized in chronological order, archived and regularly updated, containing a collection of personal opinions and comments, followed in their authorship and creation of their own programs and links to other sites.

b- Wiki:

It is a website or electronic resource that the community participates in drafting and modifying its contents, where a user allows to add new information or modify the information in it. It is based on the principle of community participation in the wealth of knowledge, and these sites are referred to as Wikis". The most famous of which is the free encyclopedia Wikipedia. However, one of its most prominent negatives is the lack of credibility and accuracy in the information. It is not required that everything on the wiki is true and accurate. However, Wikipedia imposes a kind of protection on the main topics so that it does not allow anyone to modify only by authorized member.

2.2.5. The Characteristics of Social Software: (Haidy, 2010)

a- Collaborative:

It allows sharing and connects users at multiple levels: one-to-one, Email and instant messaging (one to many), personal web pages and blogs (many to many) like a wiki.

b- Availability:

It is web-based and not desktop bound allowing users to access from multiple websites across multiple platforms, and much of this software can be accessed using mobile phones and PDAs.

c- Free:

Most social software applications are either completely free or have a free basis, or there is a free version of similar software offered by someone else.

d- Easy to Use:

It does not require a technology professional to use it, as the programming part is generally at the core of the program.

3. Cyber Crime:

3.1. The Concept of Crime:

a- Linguistically:

It is derived from the act of an offense (hitting) from guilt and gaining sin. (Ibn Mandour, 2003, p. 181).

b- Technically:

The term, crime, has two meanings:

b-1- The General Meaning:

It means every act of disobedience to the commands and prohibitions of God Almighty, and it includes every sin, whether it has a punishment in this world or its punishment is in the Hereafter.

b-2- The Special Meaning:

The crime is to do a forbidden act that the legislator forbade, or to leave an enjoined act, or money or something else. (Miloud, 2012, p. 162).

The Crime within the scope of the general criminal law is the behavior of an individual, whether an act or omission, which the society faces by applying a penal penalty, due to the disturbances that it causes in the social system (Bouskiaa, 2006, p. 03).

c- Procedurally:

It is every illegal act emanating from a sinful will for which the law determines a penalty or a precautionary measure (Al-Kaabi, 2009, p. 32).

3.2. The Concept of Cybercrime:

a- Linguistically:

There are many linguistic terms synonymous with the term cybercrime. For example, we find the term, high technology crimes, hacker crimes, Internet crimes, cyber crimes... All of this indicates information crimes committed either in a closed cyberspace or open to information networks (Derdour, 2012, p. 08).

b- Technically:

The information crime is every intentional act or omission that arises from the illegal use of information technology, and aims to attack material or moral funds (Champy, 1988, p. 03).

Tiedemann defined Information crime as: "It includes all forms of illegal behavior committed using the computer." (Tiedemann, 1984, p. 61)

The European Organization for Economic Cooperation and Development defined it as: "Any unlawful, unethical or impermissible conduct related to the automated processing or transmission of data". (Hesham, p. 06).

The Algerian legislator termed information crimes with the term crimes related to information and communication technologies and defined them according to the provisions of Article 02 of Law 04-09 as: "Crimes against the automated data processing systems specified in the Penal Code and any crime committed or facilitated by an information system or electronic communication system." (Official Newspaper, 2009).

c- Procedurally:

Crimes arising from the illegal use of the Internet depend mainly on information, and this led to the term information crime being launched on this type. From it, cybercrime can be defined procedurally as follows: "Crimes committed against individuals, groups or countries, with a criminal motive to intentionally damage the victim's reputation, or cause physical or psychological harm to the victim directly or indirectly, using modern communication networks such as the Internet (chat rooms, e-mail...), and mobile phones (SMS and MMS).

Cybercrime includes any criminal act that is carried out through computers or networks, such as hacking and hacking operations, the introduction of forged data or theft, money services, or spreading rumors against individuals or countries, or inciting prostitution and broadcasting indecent sexual films and pictures, as well as traditional forms of crimes that are carried out via the Internet.

3.3. Types of Cybercrime:

Cybercrime is categorized as follows: (Sghir, 2013, pp. 43-58.)

3.3.1. Crimes against Money:

Since the advent of the Internet, most commercial transactions are carried out through this network, such as buying and selling. In the midst of this financial trading, some criminals took advantage of the opportunity to seize them through theft of credit card numbers, illegal electronic transfer of funds, gambling and money laundering, theft and robbery of bank funds, in addition to drug dealing via the Internet.

Financial crimes include a variety of Internet fraud based on so-called "phishing", as well as "Social Engineering" aimed directly at users as well as businesses. This type of fraud also includes what corrupt employees of financial institutions do by entering wrong data or unauthorized instructions or using unauthorized operations with the aim of stealing, as well as modifying or deleting stored data, or misusing existing system tools, software packages or writing code for fraud purposes.

3.3.2. Crimes against Persons:

Among the most important of these crimes are:

a- The crime of threatening, harassment and persecution by instilling fear in the soul by pressing the will of the person and intimidating him, as if the perpetrator sends an e-mail to the victim containing frightening and horrific phrases.

b- Impersonation, deception and lure, where the criminal intends to impersonate another person to take advantage of his reputation, for example, or his money, or his powers or influence...

c- The manufacture and dissemination of pornography through sites that incite sex for adults and children alike, and these sites publish explicit sexual images of adults and children that can be circulated through various electronic media. The sexual exploitation of children on the Internet takes many forms, from pictures to video recordings of violent sexual crimes.

d- Offenses of slander, cursing and defamation, which are used to harm the honor or dignity and consideration of others. Insults and slander are done through direct lines of communication or be in writing.

3.3.3. Crimes against States:

The most notable are:

a- Terrorism:

At the present time, it has become a global cross-border phenomenon, and the culture of terrorism is broadcast electronically by establishing virtual sites that represent terrorist organizations. Through these sites, they announce their responsibility for one of the attacks that were committed or statements denying that. Terrorist groups also recruit terrorist elements through the Internet. New technologies that help them carry out their criminal acts, in addition to publishing visual materials depicting the detention or assassination of the kidnappers.

b- Organized crime:

This is done where organized crime gangs exploit the available electronic capabilities in planning, passing and directing criminal schemes and executing and directing criminal operations easily.

c- Espionage:

In this case, it is intended to see information about the unsecured in another electronic device, and it is not allowed for those who are not authorized to view it, as criminals spy on people, countries, organizations, bodies, or international or national institutions. The espionage crime also includes: military espionage, political espionage, and economic espionage.

d- Crimes against intellectual security:

It is Through the Internet and through various electronic media, cultural and civilizational attacks that may destabilize the intellectual security of oppressed peoples, and through which the dominant forces spread their thought, language and values (electronic cultural invasion).

e- Electronic Warfare:

It is already a war between many countries, but through computers and Internet networks, the most prominent example of which was the attack on the infrastructure in Estonia in 2007 by what are believed to be Russian hackers.

Analysts believe that this type of attack may become the norm in future wars between countries, where electronic armies will form with the goal of penetrating other countries and destroying their infrastructure, and military leaders may be assigned to lead such wars in the future, and among the most prominent examples of which are currently pirate groups which are called "Syrian Electronic Army", "Iranian Electronic Army", and "Chinese People's Liberation Army Unit" (Ramah, 2015).

What can be pointed out is that there are security risks to which information systems are exposed, most notably: viruses, piracy, data fraud and their use...etc.

4. Final Conclusions:

- Through what was discussed, we reach a number of conclusions that the electronic communication spaces represented in social networks have become an imminent danger threatening the social entity with its various religious and moral components and its value system.

- It is also necessary for the supervisory bodies and authorities to carefully consider the negatives of the virtual space and thus enact legislation and regulatory laws to prevent the spread of cybercrime, which has become a threat to nations, states and societies.

- Work to find oversight mechanisms that would provide the necessary measures to deal with people caught in flagrante delicate to commit criminal acts.

- The media and communication must be activated through its pioneering role in consolidating social values.

- What can be pointed out is the important role that media education must have as one of the most important requirements for social upbringing.

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