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Hate speech review in the context of online social networks

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ABSTRACT

Advances in Internet Technologies (ITs) and online social networks have made more benefits to humanity. At the same time, the dark side of this growth/benefit has led to increased hate speech and terrorism as most common and powerful threats globally. Hate speech is an offensive kind of communication mechanism that expresses an ideology of hate using stereotypes. Hate speech targets different protected characteristics such as gender, religion, race, and disability. Control of hate speech can be made using different national and international legal frameworks. Any intentional act directed against life or related entities causing a common danger is known as terrorism. There is a common practice of discussing or debating hate speech and terrorism separately. In the recent past, most of the research articles have discussed either hate speech or terrorism. Hate speech is a type of terrorism and follows an incident or trigger event of terrorism. Online social networks are the result of ITs and evolved rapidly through the popularity among youth. As both the activities are near to close and makes use of online social networks, the collective discussion is appropriate. Therefore we have a review on hate speech with different classes and terrorism with cyber use in the framework of online social networks. With the help of combined effort from the government, the Internet Service Providers (ISPs) and online social networks, the proper policies can be framed to counter both hate speech and terrorism efficiently and effectively.

1. Introduction

Hate speech and terrorism are very common and closely related activities. Initially to carry out these activities messages are communicated using traditional social networks, such as broadcast television, broadcast radio, newspapers, etc. Nowadays the online social networks like Twitter, LinkedIn, Facebook, and YouTube are using for the same purpose. Speech is a nontrivial tool to communicate ideas, beliefs, feelings and any other form of information from one to another. Generally verbal and symbolic information is used to communicate over the social networks. With the intention of balancing societal betterment and individual rights, the speech can be considered as free speech and its variant as hate speech. Free speech is required to maintain democratic rights of an individual by facilitating the exchange of their opinions. Free speech provides an autonomous enjoyment to a person.

The freedom of expression may be one of the causes to occur hate speech. Therefore hate speech to be considered as a descendant of free speech. Expressing hate speech has become a trend and people are using this as a shortcut way to get instant popularity without putting more effort. Hate speech creates a situation to test the limits of free speech. Hate speech is handled by different regulations in different countries. Hate speech usually opposes freedom of speech and violates fundamental rights of a human being. The broader goal of the freedom

of expression is to assist every individual to achieve self-fulfillment, discover the truth and strengthen oneself, establish an acceptable balance between stability and changes in society. It also allows everyone to create his/her own beliefs and communicate them to others freely (Bhandari & Bhatt, 2012).

Hate speech will act as an obstacle to these goals. The impact of hate speech is not same in all instances, depends on the person involved, content, location, and circumstances. This indicates that who, what, where and a circumstance determines the impact of a hate speech and its control. Hate speech may harm the victims directly or indirectly. In direct hate speech, the victims are injured immediately by the contents of hate speech. In an indirect hate speech, the harm may be immediate or delayed, the delayed harm is perpetrated by the agents, not by an original actor. For instance, the hate speech on racism in public meetings might motivate other racists to initiate harassment, intimidation, violence and so on (Seglow, 2016).

Fig. 1 shows the role of online social networks for destructive activities such as hate speech, hate crime, extremism, and terrorism. Hate speech is made spreadable by posting a message, reposting a message and responding to a message on social networks. Hate crime is a hatemotivated physical attack and social networks are used for planning and executing the attack related activities. Extremists and terrorists use social networks for contacting and recruiting like-minded persons,

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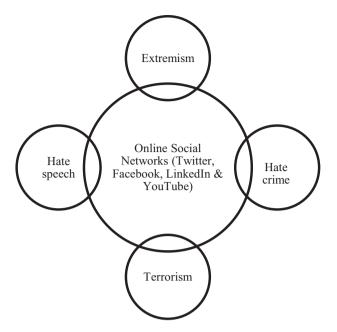


Fig. 1. Role of online social networks for destructive activities.

spreading propaganda, planning and executing the attacks.

Different stages of hate speech following a trigger event are shown in Fig. 2. Hate speech, immediately after the event (influence stage) will flow heavily on social networks, after few days (intervention stage) will get reduced, after some more days (response stage) reduces to zero level and after a long time once again it may appear. This indicates that after a particular event people will be more excited and gradually will get a normal state or behavior. The rebirth stage is shown with a dashed line to indicate as an optional stage. Based on the type and impact of an event, the hate speech may or may not appear once again after a long time.

Fig. 3 shows violent activities with tree structure. For simplicity and conciseness of the article, only a few activities are discussed here. In this article, more emphasis is given to hate speech and terrorism in the form of a review. The relationship such as $is\ a\ /\ kind$ nature moves from bottom to top of the tree.

Terrorism is a global phenomenon which results in loss of innocent lives and public properties on a larger scale than any other event. Two main objectives of terrorism are creating terror in the minds of targeted victims and attracting media and world power towards them. Terrorism presents a threat to humanity in common, without differentiating between race, gender, religion, and nationality. It is an international problem by challenging communities of the entire world. Emanuel Gross said that "The majority of the definitions have a common basis terrorism is the use of violence and the imposition of fear to achieve a particular purpose" (Gross, 2001, p. 97).

Cyberterrorism is a novel approach to making damage to the victims of the attack. It makes use of computer and related technologies to

attack a targeted one. Cyberterrorism activities are very common due to lack of international resolve. Technological tools like social networks and related websites help terrorist groups to increase and improve their terrorist activities by exchanging harmful information. Therefore, there is very much essential to develop technological methods to identify cyberterrorist groups and their related information. There are no universally accepted and unique definitions of hate speech, terrorism, and cyberterrorism.

Extremism is a political and religious ideology with an opposition towards societal norms and its nature is almost same as terrorism. According to Liebman, extremism is "a desire to expand the scope, detail and strictness of religious law, social isolation and the rejection of the surrounding culture" (Liebman, 1983, p. 75). In some countries, the violence of creating terror is called as extremism. Its extreme political and religious views lead towards hate speech and hate crimes.

Hate crime is a hate-motivated a physical attack on a person, property or group with respect to the identities like gender, race, religion, nation, and ethnicity. Walters et al. (2016, p. 11) argued that "the criminal offense, which is perceived by any person, motivated by hostility and prejudice is referred as a hate crime". Hate crimes take away the victim's civil rights. It is a kind of extremist crime and punishable by the constitutional law of each country, whereas hate speech is a verbal attack and not punishable easily with the legal framework.

Exploitation is an act of treating others by an unfair means to get benefit from them. Exploitation is made understandable by Roemer with a statement like "a group of people S is exploited by its complement S' in a society with private ownership of the means of production if S would benefit, and S' would suffer, by a redistribution of ownership in the means of production in which each owned his per capita share" (Roemer, 1989, p. 90). This is one of the common harm to the society and is practiced by unethical people. The harassments such as sexual, forced and child labor, slavery, and organs removal are the different forms of exploitation.

Online social networks are a special form of social networks and help to establish the relationship among users of the networks globally. These networks are one of the most important points of growth for the Internet. Traditionally online social networks are meant for maintaining existing relationship, enhancing the existing relationship and creating a new relationship based on common interests. Nowadays these are used as a rich set of the database for decision making and as a media for communication. As a communication media, these can be used for generating and spreading healthy and unhealthy information among connected users. A small percentage of users use a portion of the networks for unhealthy activities such as hate speech and terrorism but the impact of this small percentage of users is more and harmful.

ITs plays an important role in humanity, such as examining the determinants of e-participation by citizens, initiated by the citizen themselves and the government (Alathur, Ilavarasan, & Gupta, 2016). Online social networks incorporate the use of ITs for the purpose. The commonly used online social networks are Twitter, Facebook, YouTube and LinkedIn.

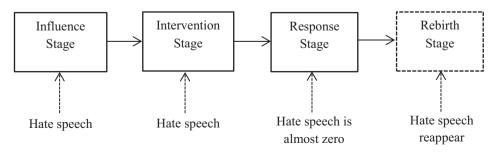


Fig. 2. Stages of hate speech following a trigger event.

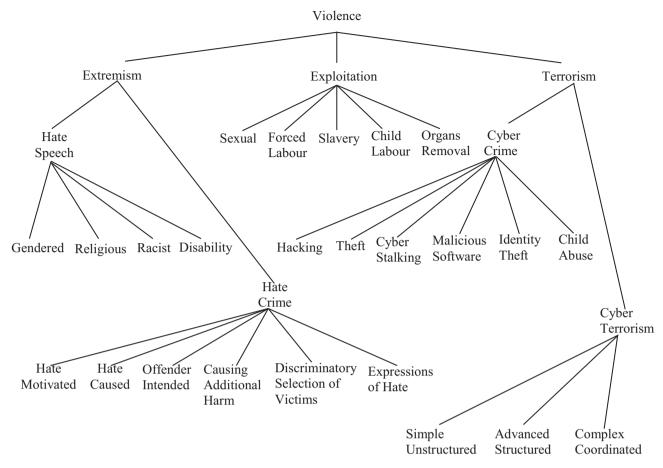


Fig. 3. Violent activities in tree structure.

1.1. Definition of hate speech

Hate speech generally targets ignorant groups to exhibit an opposing behavior on them. The superiors will forget that the ignorant group will also have an equal right while making hatred statements. Hate speech is more destructive and dangerous when it targets traditional symbol, event or an activity. The messages exchanged on individuals related to nation, race, ethnicity, religion, sexual orientation, occupation, gender or disability have a more impact than the individuals personal information. Almagor (2011, p. 1) has defined hate speech "as bias-motivated, hostile, malicious speech aimed at a person or a group of people because of some of their actual or perceived innate characteristics".

The European Court of Human Rights, adopted a definition on hate speech as "all forms of expression which spread, incite, promote or justify racial hatred, xenophobia, anti-Semitism or other forms of hatred based on intolerance, including intolerance expressed by aggressive nationalism and ethnocentrism, discrimination and hostility towards minorities, migrants and people of immigrant origin" (Council of Europe, 1997, p. 107).

With this concept, we assume that "hate speech is any speech, which attacks an individual or a group with an intention to hurt or disrespect based on identity of a person". Once the hate speech is expressed, hurting or disrespecting depends on the perception of the victim. For some, it may or may not affect. Generally, an effect of hate speech depends on the originator, content and the targeted one.

If a hate speech does not incite to discriminate (do not hurt the targeted one), then, there arises a question that whether this kind of speech is hatred or not? Here it is accepted as hate speech because of the intention and content. For clarity consider a legal framework, in

which an attempt to murder is treated as a crime, accused will be penalized and the victim will be provided more protection. Here purpose and action performed by the murderer are counted. Similar ideology is applicable in the context of hate speech.

1.2. Definition of terrorism and cyberterrorism

Several definitions of terrorism exist, based on the identities of perpetrators the same violent behavior is considered differently. The groups with similar behavior are considered as social fighters and terrorists by their sympathizers and enemies respectively. According to Ganor "terrorism is a modus operandi by which violence against civilians is created deliberately for the purpose of achieving political goals" (Ganor, 2009, p. 13). An act of terrorism through the usage of IT tools turns into cyberterrorism.

By incorporating the motivation, the purpose and the object of the attack, cyberterrorism is defined by Denning as: "cyberterrorism is the convergence of terrorism and cyberspace. It is generally understood to mean unlawful attacks and threats of attacks against computers, networks, and the information stored therein when done to intimidate or coerce a government or its people in furtherance of political and social objectives" (Denning, 2000, p. 1). From the views of Denning, the impact of cyberterrorism is treated as similar to traditional terrorism. Cyberterrorism by Pollitt is "the premeditated, politically motivated attack against information, computer systems, and data which results in violence against non-combatant targets by subnational groups and clandestine agents" (Pollitt, 1998, p. 9). This indicates that the cyber terrorism will lead to violence and description of the attacker.

With these concepts, here cyberterrorism is defined as "terrorism through utilization of internet and communication technologies and related tools. That is an attack is carried out on a targeted group, an individual, place or any object using computing systems, Internet, stored information and knowledge of software with an intention of making damage to targeted one".

With this overview of hate speech and related terms, the remaining portion of the article is structured as follows. In Section 2 legal frameworks for hate speech through national and international bodies are discussed. Section 3, provides a literature review on hatred expression on the basis of gender, religion, racism, and disability. This section also reviews on general hate speech. A review of cyberterrorism is outlined in Section 4. Finally, Section 5 concludes with the outcome of an article.

2. Legal frameworks for hate speech

As a part of the legal frameworks, some of the commonly acceptable activities related to expressions like free speech and hate speech by national and international bodies are discussed. The legal frameworks contain set of rules to permit or prohibit activities or ideas based on their nature.

2.1. International legal frameworks

The legal information on hate speech can be found by accessing international human rights law with internationally accepted declarations and conventions supporting fundamental rights to every human being. Article 19 from Universal Declaration of Human Rights (UDHR) states that "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any networks and regardless of frontiers".

The whole universe is agreed upon the freedom of expression. To make effective and appropriate use of freedom of speech, article 29(2) of the UDHR states that, "In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society." It opposes the use of text, content, theory, and practice of free speech as a liberty of an individual in the modern societies. Similarly, other international bodies stated their views on free speech rights and/or hate speech restrictions in the form of articles. A summary of articles from international bodies for free speech rights and/or hate speech restrictions is outlined in Table 1 (ECHR, 1950; ICCPR, 1976; ICERD, 1969; UDHR, 1948).

The statements made by 3 communities UDHR, European Convention on Human Rights (ECHR) and International Covenant on Civil and Political Rights (ICCPR) on free speech rights are almost same. International Convention on the Elimination of all forms of Racial Discrimination (ICERD) does not state any article on free speech rights. UDHR stated the minimum and general restrictions on hate speech. ECHR refines the conditions and expands the restrictions to cover more phrases on anti-hate speech as a threat to national security, territorial integrity, the information disclosing against the confidentiality, preserving impartiality and judicial authority. Initially, ICCPR is phrased with minimal terms on hate speech and later a paragraph is added to cover more on hate speech. Added paragraph prohibits propaganda for war and hatred advocacy on nationality basis, racism or religion. ICERD stated more on an anti-hate speech by prohibiting the ideas disseminated with racial superiority, whether this dissemination was likely to lead towards violence or hostility or not.

The discussion on legal frameworks of international bodies shows that the views of all the treaties are almost same with some added restrictions on hate speech by ICERD.

to, or acts or group of persons of one color Undertake to adopt immediate and positive measures designed to eradicate all incitement promote racial hatred and discrimination in any form Protection of national security or of public order or of public health or morals Restrictions are to attain morality, public order, and welfare of society. Preventing the disclosure of information received in confidence Retaining national security, territorial integrity or public safety meant to respect rights and freedom of others To maintain the respect for the rights or reputations of others Maintaining the authority and impartiality of the judiciary Prohibit advocacy of national, racial or religious hatred Condemn propagandas based on ideas of superiority of Protection of the reputation or rights of others or Prevention of disorder or Crime justify Law determines the restrictions Protection of health or morals Prohibit propaganda for war Condemn the attempt to Restrictions on hate speech such discrimination Restrictions are ethnic origin Hate speech article no. Receive information and ideas Receive information and ideas Impart information and ideas Receive information and ideas Impart information and ideas Impart information and ideas Seek information and ideas Seek information and ideas Rights on free speech opinions Hold opinions Free speech article 10(1) 19 International legal frameworks for hate speech. Adaptation year 948 950 926 696 International body UDHR no.

 Table 2

 Select few countries' legal frameworks for hate speech.

S. no.	Country	Constitutional role to control hate speech	Penal code role (punishment) to control hate speech
1	India	 Article 25(1) states, all are having equal freedom and the right to freely profess, practise and propagate religion. Article 19 provides the right to freedom of speech and expression to all citizens with restrictions for preserving public order, decency, and morality. According to the article 28 conveying any religious message in educational institutions are prohibited. 	 According to section 153(A), from Indian Penal Code (IPC), hatred expression against any identifiable group is accountable to punish by imprisonment of maximum 3 years or fine or both. Section 295(A) from IPC says hatred expression exclusively on religion is accountable to punish with imprisonment up to 3 years or fine or both.
2	Canada	 Article 51A (h) imposes on every citizen the duty to develop the scientific temper, humanism and the spirit of inquiry and reform. Section 2 of the Charter, grants freedom of conscience and religion, thought, belief, opinion, and expression. Section 1 restricts the granted freedoms by making them subject "only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society". 	 Section 318 states imprisonment up to 5 years for anyone who advocates genocide. Section 319 mention penalties as fine or imprisonment with maximum two years to the exhibitor of hatred towards any identifiable group. This section also nullifies the guiltiness of accused, if accused proves that the statements made were true in public interest. According to section 320, a judge can seize publications containing
3	United Kingdom (UK)	 Act 1986 prohibits racial hatred expression on the basis of group's color, nation, race or ethnicity. Section 4A inserted into the Public Order Act, 1986 by the Criminal Justice and Public Order Act, 1994 prohibits anyone from causing alarm or distress. 	 propaganda for hate. Section 18 of the Act says a person is accountable to punish with imprisonment of maximum 7 years or fine or both if he threatens, abuses or insults others. Section 4A says a person with an intention to harass, distress or alarm others is treated as guilty and will be punished with imprisonment up to
4	Poland	 Article 54 of the Constitution protects freedom of speech. Article 13 prohibits political parties and other organizations which have programmes based upon totalitarian methods. It also prohibits any programmes or activities which promote racial or national hatred. Article 35 gives national and ethnic minorities the right to establish educational and cultural institutions and institutions designed to protect religious identity. 	 6 months or fine or both. Article 196 states that anyone offending religious feelings intentionally is accountable to fine, liberty restriction or imprisonment up to 2 years. Article 256 states that, if anyone inciting hatred with respect to nationality, race, ethnicity or religion liable to fine or liberty restriction or imprisonment up to 2 years. Article 257 states that, if anyone found guilty of insulting a group or an individual publicly is liable to fine, liberty restriction or to imprisonment up to 3 years.
5	United Arab Emirates (UAE)	 The law, No. 02 of 2015, criminalizes any act that stokes religious hatred and/or which insults religion through any form of expression, be it speech or written word, books, pamphlets or via online media. 	 The law states that the penalties for violating various provisions of it are imprisonment between 6 months and 10 years with a fine of Dirham 50,000 to 2 million. The law bans promotional activities on hate speech and punishes receiving financial support for such activities.
6	United States of America (USA)	 Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech, or of the press, or the right of the people peaceably to assemble and to petition the Government for a redress of grievances. 	Public universities adopted speech codes as societal implementation for regulating discriminatory speech by faculty and students.

2.2. Select few countries' legal frameworks

Apart from the international standards to control hate speech, it is also essential to have national laws to combat hate speech. The constitutional and penal code laws of few countries to combat hate speech are discussed in this section.

The hate speech laws in India aim to avoid conflicts among the various religions in the country. These laws lead towards a punishment when a citizen unrespect the others on the basis of race, religion gender, disability, language, occupation or on any other identity. The laws of hate speech also obstruct the expressing mechanisms, which harms to the citizen. Article 19 of Indian constitution provides right to every citizen on freedom of speech and expression with the constraints to preserve morality, public interest or decorum (Indian Penal Code, 1860; Law Commission of India, 1971; The Constitution of India, 2007). Similarly hate speech laws of Canada (Walker, 2013), United Kingdom (Criminal Justice and Public Order Act, 1994; Public Order Act, 1986), Poland (The Constitution of the Republic of Poland, 1997; Penal Code of Poland, 1997), United Arab Emirates (UAE Anti-discriminatory Law, 2015) and United States of America (Office of General Counsel, 2009; Ruane, 2014) are referred and a summarization is made as shown in Table 2.

In Canada, if a person justified his hatred expression as true with faith or in public interest, then he will not be punished. Similarly, in the UK, a person will be punished if the hatred expression is threatening not just abusive or insulting. In Poland, if a person commits guilty with

hatred expression, is liable for punishments through fine, imprisonment or restriction of liberty. In UAE hate speech law is implemented recently in 2015 as an obstacle to hate speech and promotion of violence. According to this law, an accused will be punished with a fine and jail term. The constitution of USA emphasizes more on the free speech than hate speech and still, the hate speech laws are not clear. To maintain discipline at universities, authorities adopted some speech codes as societal implementation. As these speech codes oppose first Amendment of the constitution of USA, they do not stand in the courts. Freedom of speech is considered as one of the important freedoms globally.

3. Hate speech

Hate speech does not target based on only single identity. It can target on the basis of gender, religion, race, and disability (Seglow, 2016). In the following subsections, a review of hate speech based on gender, religion, race, and disability is made. Subsection 3.5 reviews the works on hybrid hate speech, a speech which does not target a particular singe identity, but can have more than one identity as targets.

3.1. Gendered hate speech

This is an expression, which is made on the grounds of gender or sex. The victims of this kind of hate speech are generally women and girls. There is an intended violence on women and girls in the world due to their gender identity. This is known as sexist hate speech and is a kind of social shaming which intends to disrespect women, introduce fear and insecurity among women in the society. Easy availability of the Internet, the rapid growth of information and communications technologies and the common use of social networks made depicting violence against women and girls much simple. These advancements are being used as tools to harm women and girls. Online violence against women and girls is considered as a global problem.

Social networks are the primary medium for an online harassment on the basis of gender. This kind of harassment with women affects personal lives and professional careers of women (Simons, 2015). Both women and Muslims are targeted by online hate than any other gender and community. For the academician who faces societal inequalities such as women or a person belonging to Muslim community, the internet may be unsafe space (Barlow & Awan, 2016). An abuse and harassment of the women and girls in the society might be the one of the reason for a female to move towards terrorist organizations (Edwards, 2017). Young women are more necessary in terrorist groups for serving as domestic servants to provide all domestic services along with sexual services needed by the men. Some women will have a marriage with a member of terrorist organization for providing sexual services to a particular person. Some women will be forced and abused for providing sexual services to more than one. This trend divides the sexual abuse of women into two different kinds, like forced marriage and sexual services to more men without marriage (Edwards, 2017).

The act of bullying, whether conventional or digital/cyber is dependent on individual personality and contextual factors (Casas, Rey, & Ortega-Ruiz, 2013). The involvement of girls in cyberbullying is more than the boys (Beckman, Hagquist, & Hellström, 2013). Both the forms of bullying, traditional as well as cyber involve changing patterns of gender. Sometimes, during bullying, bystanders are intended to help victims in case of a more severe incident and sometimes, intended to promote bullying with other friends (Bastiaensens et al., 2014). Both the behaviors of helping and reinforcing during bullying are gender dependent.

In a home of an equal number of boys and girls, children are made to socialize into different domains on the basis of gender. Females are motivated to socialize for taking care of others and better communication, whereas males motivated towards non-communal, leadership and achievement-oriented activities (Ridgeway, 2011). Based on the profession, most likely women will have contacts towards the people with jobs like teacher, cashier, nurse, and hairdresser, whereas men most likely will have contacts towards the people with jobs like computer programmer, banker, security guard and factory operator (Chua, Mathews, & Loh, 2016).

High speed evolution of online social networks has weakened the laws developed to govern and control them, resulting in a difficult situation for victims of online attacks. Feminist campaigners are also facing an abuse and harassment through the usage of online social networks (Hardaker & McGlashan, 2016). One of the solutions to online harassment such as rape threats against feminist campaigners is to adapt do-it-yourself approach (Jane, 2016). Hate crimes are increased by legal inequalities because they lead to biasing and violence. Violence can be reduced with legal equalities (Levy & Levy, 2016). A comparison of review works is made in the following paragraphs.

Simons (2015) highlighted that there is a need to have analytical research for providing insights to empower victims, to discourage perpetrators and to increase awareness among the public. Barlow and Awan (2016) suggested that the social networks companies, like Twitter, should take corrective measures to counter online abuse against women and Muslims. Edwards (2017) identified that women are recruited by terrorist organizations mainly to meet sexual requirements of the men

Based on the identified relationship among the predictors of traditional bullying and cyberbullying, Casas et al. (2013) suggested that educational programs can be used as a tool to counter abuses of both

bullying and cyberbullying. Factors involved such as personality, contextual and roles are closely related to both the acts. Beckman et al. (2013) determined the role of youngsters with gender differences engaged in traditional bullying and cyberbullying using data samples of size 2989 from school students of Sweden to control cyberbullying. Bastiaensens et al. (2014) examined the effect of contextual factors on bystander's behavioral intentions towards helping the victim or reinforcing the bully during the harassment using Facebook with the data collected from 453 secondary school students of Flemish.

After analyzing the attitude towards gender, a statement such as women are dedicated caretakers and mothers and men are facility providers are made by Ridgeway (2011). Similarly, Chua et al. (2016) identified the nature of women and men towards contact establishment with others in the society.

Levy and Levy (2016) after analyzing the effects of 3 policies on a partnership of same-sex, non-discriminated employment and laws of hate crime with annual data from 2000 to 2012, shown that hate crimes are affected by public policies related to sexual orientation. Hardaker and McGlashan (2016) investigated the sustained period of abuse and harassment towards a feminist campaigner and journalist, Caroline Criado-Perez via her Twitter account using an interdisciplinary approach with quantitative and qualitative analysis. Jane (2016) examined the responses of feminist to increasing problems of online hate with a focus on female gamers and the responses of Australian gamer Alanah Pearce with alert messages to their mothers against sexual violence threats from young male Internet users.

3.2. Religious hate speech

This is a type of hatred expression against religions such as Islam, Hindu, and Christian. As the religion contains the group of people, the hate speech against this is more harmful than against an individual. Muslims are demonized and vilified online with negative attitudes, stereotypes, discrimination, physical attacks and harassment with an intention of creating violence. Anti-Muslim abuse is increasing online, so it is required to address Islamophobia issue on social networks. An analysis of online communities is possible by observing their activities such as information they post, share and like (Awan, 2016). Muslims are being used as a model to depict homogeneous out-group which is involved in conflict, violence and extremism (Tornberg & Tornberg, 2016). The internet acts as an amplifier to reflect and reinforce available discourses into networks for stronger polarized effects.

Microblogs being posted during disasters include situational information and the emotions/opinions of the public. It is necessary to emphasize on non-situational tweets/communal tweets rather than only situational tweets, i.e., abusive posts towards a specific religion or racial group. Generally, communal tweets are made by common users and as well as popular users with more followers. Communal tweets get more exposure (retweets) than situational tweets (Rudra, Sharma, Ganguly, & Ghosh, 2016).

A style of clothing followed by an individual can provide some information on him but not complete information. Usually, the people will think that hijab is an indicator of individual integration level. This misinterpretation and confusion can be avoided by educating the general public on Islamic culture. The initiatives like art and design activities of Islam collaborated fashion projects (hijab/veil design project, fashion shows with multiple cultures) could be proposed and implemented to serve the purpose. This kind of activities can be extended to Canadian culture and values to improve overall social unity (Rahman, Fung, & Yeo, 2016). There were increased attacks on Muslims after terrorist attacks on Paris, Tunisia, and Woolwich. In these attacks mosques have been vandalized, hijab or niqab of Muslim women were pulled off, physical torture is given to Muslim men and some Muslim properties have been destroyed (Awan & Zempi, 2016).

In an online platform, hostility against Muslim is attained through the activities such as bullying, harassment, incitement and the threats

Table 3	Comparison of works on religious hate speech.

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S. no.	Authors	Year	Year Data from	Purpose of work	Methodology	The outcome of the work
1	Awan	2016	2016 Facebook	To address the issue of Islamophobia on social networks.	Mixed methodology (qualitative data collecting techniques with grounded theory).	 494 incidents of online hate targeted towards Muslim communities. Typology of five characteristics (opportunistic, deceptive, fantasists, producers and distributors) of anti-Muslim hate adopted on Farebook
7	Tornberg and Tornberg	2016	2016 Swedish Internet forum	Examining different representations of Muslim and Islam words in a large corpus of 105 million words.	 Topic modeling and discourse analysis 	 Muslims are being used as a model to depict homogeneous outgroup, involved in conflict, violence and extremism characteristics originating from Islam. Internet forum serves as an online amplifier by reflecting discourses in traditional networks.
m	Rudra et al.	2016	Twitter	To emphasize on non-situational/communal tweets rather than only situational tweets, (abusive posts towards a specific religion or racial group)	 Twitter Search API to collect tweets 10-fold cross-validation approach to build classifiers 	 Communal tweets are made by common users and as well as popular users with more followers. Communal tweets got more exposure through re-tweets than situational tweets. A technique to counter communal tweets during disasters such as anti-communal tweets by the non-communal user.
4	Awan and Zempi 2016 Twitter	2016	Twitter	To examine how Muslims are affected by online/offline hate crimes and affinity between online and offline crimes.	 Mixed methodology (qualitative data collecting techniques with grounded theory). 	 Some Muslims withdrew their presence from online social networks. Hostility towards Muslim in both the cyber and the real world is a continuous process.
rc	Rahman et al.	2016	2016 Canadian online news media	To know the relationships between the Islamic culture (attire) and the opinions of the online readers.	 Sentiment and content analysis methods 	 hijab is an indicator of individual integration level Educating policy on Islamic culture to avoid misinterpretation and

indicating offline violence. Differentiating online and offline threats are difficult for the victims. Victims will have a fear of transition of threats from online to real world/offline incidents. Due to this natural relationship between the online and offline hate crimes against Muslims, some Muslims withdrew their presence from online social networks thinking that this is the only way to protect from online threats. Hostility towards Muslim in both the cyber and the real world is a continuous process (Awan & Zempi, 2016). To summarize the review on religious hate speech a comparison is made in Table 3.

3.3. Racist hate speech

An expression towards the appearance of a person or group is known as racist hate speech. Usually, this kind of speech takes place at international level. The frequency of occurrence and impact of this speech depends on the intention and perception of the government of a particular nation and varies from one leadership to another leadership. Tatum has argued that, "racism as a system involving cultural messages and institutional policies and practices as well as the beliefs and actions of individuals" (Tatum, 2001, p. 103). Wodak and Reisigl (1999, p. 181) assumed that "racism is both an ideology of a syncretic kind and a discriminatory social practice that could be institutionalized and backed by the hegemonic social groups". This indicates that, in an environment or a system, people of one group exhibit their power against other group/individual based on physical appearance such as skin color.

The online social medium Twitter not only provides freedom of speech to its users, it also amplifies hate speech with the re-tweeting facility (Kwok & Wang, 2013). When subjects were approved by a white male having high followers, there is a significant decrease in a racist slur on Twitter (Munger, 2016). After the death event of a young Black man Mike Brown, who was killed by shooting from Darren Wilson, a number of black people tweeted than the white people (Chaudhry, 2016).

The social networks have a significant role in racism and are the sources to understand it. Social networks provide a context for learning, challenging and addressing issues related to racism. Social networks act as a platform for discussion of identity by the students and the different means for producing and consuming networks that possess and shapes societal behavior and race (Nakagawa & Arzubiaga, 2014). A brief summary of the works is outlined in the following paragraph.

The Naïve Bayes classifier used by Kwok and Wang (2013) on Twitter data produced only 76% of average classification accuracy on individual tweets because the classifier is built using only unigrams instead of n-grams. Munger (2016) identified and collected some Twitter users who harassed others and used "bots" created accounts with control for sanctioning the harassers. After analyzing the tweets following the death event of a black man Chaudhry (2016) identified that the tweets from the concerned racist community (victim group) will be more than the perpetrating group. Nakagawa and Arzubiaga (2014) discussed on how to promote racial literacy with more emphasis on intersectionality. Supervised machine learning algorithms play an important role in classifying Twitter data with specified labels (Kwok & Wang, 2013).

3.4. Hate speech on disability

The incitement made against the physical and mental conditions of a person is referred as hate speech on disability. Disability is considered as a social category like race and gender rather than perceived as an isolated entity of medical field. Disability means any health problem of an individual which limits to do some of the life activities. With the presence of advanced medical diagnosis and treatment, the people survive longer with the help of supporting tools but results in disability. Disability can be a part of any person, at any time of the life and covers all protected identities such as races, genders, nationalities, and

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Table	

Сотра	rison of works on hybri	d hate	Comparison of works on hybrid hate speech (targets multiple identities).	dentities).		
S. no.	S. no. Authors	Year	Year Data from	Purpose of work	Methodology	The outcome of the work
1	Williams and Burnap	2015	2015 Twitter	To analyze cyber hate with online social media after Woolwich terrorist attack.	Twitter streaming API to collect dataSupervised Machine Classifier	 The terrorist attack leads to hate speech After terrorist attack hate speech occurs, reduces and vanishes oradially
7	Bumap and Williams	2015	Twitter	To help decision makers by monitoring the reaction of the public during emotive events.	 Twitter API to collect data 10-fold cross-validation method for training and testing machine learning model Statistical regression models 	n-gram typed dependencies produced better results
က	Warner and Hirschberg	2012	2012 Yahoo and American Jewish Congress (AJC)	To detect hate speech in online text.	SVM classifier	 Bigram and trigram templates reduced the performance of the classifier.
4	Miro-Llinares and Rodriguez-Sala	2016	Twitter	To categorize different representations of violence and hate sneech.	Classification followed by qualitative and quantitative analysis	• The hashtag is identified as a variable for predicting violence and hate message from the tweet.
r.	Nobata et al.	2016	2016 From Yahoo	n online content.	Supervised classification with NLP features	 Hate speech detection method for online user comments.
9	Almagor	2011	1	Analysis of the ways for countering hate speech on the internet	1	 Corpus of user comments. A framework to identify problems and resolve by considering ethical and social responsibilities. Possible solutions to counter hate speech like speech vs. speech, education, hate-watch, etc.

generations. The non-disabled people are considered as temporarily able-bodied (Kudlick, 2003). Hate speech will be more common for disabled people than the able-bodied people. Hate speech on disables is due to the perception of disability by the violator but not due to actual disability of a person (Hollomotz, 2013). There are several structural barriers for denying parental rights legally and removing sexual freedom as sexual autonomy on disabled people (Stevens, 2011).

Intellectually disabled women are more vulnerable to violence at home. An able-bodied man will establish a relationship with the woman of an intellectual disability, initially, start being pleasant and gradually moves towards controlling her (McCarthy, 2017). Even though the disabled persons are more vulnerable to hate violence, the hate reporting mechanism are less and not appropriate than other protected characteristics like gender/race. To maintain the social dignity of the disabled people, the local governments are required to have proper crime reporting and controlling systems (Macdonald, Donovan, & Clayton, 2017).

The disablism and its risks could be addressed by emphasizing on their disability, family presence, perceived complexity, ignorance, and misrepresentations by perpetrators (Alhaboby, al-Khateeb, Barnes, & Short, 2016). Disabled people are victims of a hate crime because they can be targeted easily and there is the limited response to these crimes (Roulstone, Thomas, & Balderston, 2011).

Domestic violence is an issue of gender involving mostly men as perpetrators and women as victims. The domestic violence on disabled women is even more than the able-bodied women. The disabled women are tortured by their partners in multiple ways, such as denying access to transportable aids like a wheelchair or any other mobility device, avoiding access to medicines, personal care and home facilities (Thiara, Hague, & Mullender, 2011). Mate crime is an act of a crime on disabled people, which is carried out by the friends or relatives or familiar persons of the victims and is more similar to domestic violence. It is necessary to have changes with the systems which are responsible for public safety, so that hostility against disabled people can be identified and controlled (Thomas, 2011). The women with disability have been dually victimized by their partners and failed systems. These kinds of victimizations made women feel as powerless and self-blamed (Walter-Brice, Cox, Priest, & Thompson, 2012).

3.5. Hybrid hate speech

This category of hate speech is not related to a particular type. The hatred expressed in this form may be against more than one community and identity. That is the targets of a same anti-religion harassment may be Hindus and Muslims.

A terrorist attack is one of the antecedent/parental trigger events for production and dissemination of hate on online social media like Twitter. Following an attack, the hate speech will be more at the time of impact stage, will start to reduce at inventory stage and will vanish during reaction stage (Williams & Burnap, 2015). Big data plays an important role in making policy and decision. A machine learning classifier is developed to recognize hate speech through twitter data following the Lee Rigby's murder incident. Generally, a combination of words as n-gram produces better results (Burnap & Williams, 2015). The learnability of the classifier depends on the set of features used to train. There is a necessity to improve overall performance by increasing classification accuracy, changing parameters and optimal kernel functions (Warner & Hirschberg, 2012).

Online social networks being the richer sources of data are important to scientists for researching on human behavior. Following an attack on Charlie Hebdo weekly in Paris 2015, tweets were collected and classified as tweets with violent or hate and general tweets (Miro-Llinares & Rodriguez-Sala, 2016). Nowadays identification of abusive statements in online content has become a common trend. As the growth of online content is high, it is required to have accurate and automated methods to process it (Nobata, Tetreault, Thomas, Mehdad,

& Chang, 2016).

As the online hate is increased, a framework is needed to identify problems on the hate speech and can be resolved by societal and moral responsibilities. Some of the possible policy approaches like speech vs. speech, education, hate-watch, initiatives by citizens and internet users to Combat Hate, content filters, blocking programs at work and school and responsible ISPs can be used to counter hate-related problems (Almagor, 2011). Table 4 shows a comparison of works on hate speech, which targets multiple identities.

4. Cyberterrorism

The awareness announcement of the developed new technologies by the Government and communication media alerts cyber criminals and cyber terrorists for developing approaches to attack new technologies. Nowadays, cyberterrorism is an everyday activity of terrorists and will continue with the political, religious or ideological support (Awan & Blakemore, 2012). Terrorism is referred as an *upward crime*, with the perpetrator belonging to lower social group compared to a targeted group, whereas hate crimes referred to *downward crimes*, in which perpetrators belong to higher social or powerful group than the victim's group in the society (Deloughery, King, & Asal, 2012).

Cyberterrorism is a special type of terrorism with an intention to harm physically or create terror in the minds of the victim by means of electronic and internet tools. Terrorism or cyberterrorism is one of the causes for the occurrence of hate speech (Deloughery et al., 2012). Like cousins the hate crime and terrorism are very close (Mills, Freilich, & Chermak, 2017). Generally, the generation and spreading of hate speech start by following a terror event. Cyberterrorism is a global issue which disturbs the world peace and security. Terrorist organizations make use of existing cyberspace tools, like social networks and websites for posting illegal/harmful contents, sharing information and directing new members. As the nature of cyberterrorism is transactional, only local regulations cannot control its attacks, this requires a collective international solution.

Cyberterrorist networks are the kinds of social networks along with the features like high secrecy and hidden relationships of their members. Social Network Analysis (SNA) is an appropriate mechanism to analyze the nature of cyberterrorists using the concept of graph theory (Roberts & Everton, 2011). An appropriate method to counter transactional crime like cyberterrorism is to develop an international legal framework through multiple cooperating nations (Tehrani, Manap, & Taji, 2013). It is also essential to develop the effective approaches for identifying cyber terrorist organizations, to know their hierarchical structures and operating strategies (Saidi, Trabelsi, Salah, & Ghezala, 2017).

An act of violence, the narrative used as justification to attack and messages to describe the way of an organization to achieve its goals are the languages used to communicate by terrorists (Wilkinson & Barclay, 2011). Terrorist organizations would be members are persuaded using any or all of these languages. Terrorist group's positioning policy is to create a death-centered militant with struggles in life for afterlife benefits (Baines & Shaughnessy, 2014). These organizations, organizes contests by providing rewards and prizes to a terrorist group with the best performance. Members of terror organizations will feel like they are in a contest and put their full effort to attain the target of more victims. With this style of attack, the number of victims in the current year will be more than the previous year (Caruso & Schneider, 2013).

Radicalization process is a very common terrorist activity and is difficult to understand its mechanisms. Hence, there is a necessity to identify and analyze the approach used by the radical Islamic groups to attract and polarize more disaffected individuals to block or reduce spreading of extremism and terrorism (Torok, 2013). With the terrorist groups, women may be considered as active agents but voiceless victims. As their roles are situational and depend on multiple factors, cannot be judged based on current situation. Generally, the women are

undervalued with terrorist organizations (Chatterjee, 2016).

Nowadays, most of the terrorist organizations are connected to the internet through the platforms such as chat rooms, electronic mail, forums, and tools like Twitter, Facebook, and Google Earth. Youth are the target of Jihadist terrorist organizations for their criminal activities such as propaganda, incitement and recruitment purposes (Weimann, 2010). Social networks have provided a digital platform to terrorist organizations, which enables cyber-based attacks through message dissemination (Bertram, 2016). Recently Twitter is considered as terrorist's favorite online tool to propagate criminal activities to online users and enable communication among members of terrorist organizations. The Twitter social network is promoting radical Islamic activities such as propaganda and recruitment of members to the users around the world (Chatfield, Reddick, & Brajawidagda, 2015).

Currently, there is less idea of the factors related to information propagation through social networks succeeding the terrorist events. Social features of a tweeter and content features of the tweets are the most influencing factors for heavy and long lasting information flow respectively through Twitter social networks following a terrorist attack (Burnap et al., 2014).

Twitter is maliciously used to spread fake images of Hurricane Sandy 2012 disaster as rumors, which created more panic in people associated (Gupta, Lamba, Kumaraguru, & Joshi, 2013). During the terrorist event, people will use online social networks for exchanging the information, uniting against the event, pressurizing the government to punish the actors, collecting funds for recovery of victims, etc. After a terrorist attack in Kenya at Westgate shopping mall, an analysis is made for a number of tweets, geographic location of tweets, response (tweet, retweet or reply) of users in developing countries, reach and impression of the tweet (Ishengoma, 2013).

Majority of users use online social networks for good services like interactions and information exchange but a fraction of users may misuse them for terrorism. This small set of terrorists will have the worst impact on a number of people around the world, such as a 9/11 terrorist attack on USA's international trade center. Recruiting members and retaining sympathizer's loyalty, planning attacks and sharing information, gathering intelligence, training for specific attacks, raising funds for maintenance, propagating fear to enemies and engaging in counterintelligence are the online social networks activities in favor of terrorists. Some of the online social networks activities against terrorist groups are flagging based on keywords, analyzing the sentiment, honeypots and facial recognition (Mahmood, 2013).

The young people exploitation approaches such as child abusing, solicitation, and radicalization over the internet are common in nature (Quayle & Taylor, 2011). Cyberspace is a convenient and suitable venue for terrorist groups for their criminal activities. Social networks companies should know their social responsibilities like, how to filter and handle the content of terrorist groups. To manage this social responsibility it is required to have internet censorship (through ISPs and social networks companies) and government's proactive measures to prevent terrorist groups from dissemination of information (Bieda, 2015).

Terrorism and the Internet are important international phenomena, which reflects and shape different views of world politics (Conway, 2007). Evan Kohlmann cyber terrorism expert argued that, in present days, 90 percentages of terrorist activities are carried out using social media over the Internet (Noguchi, 2006). These tools safeguard the identities of participants and facilitate for contacting terrorist representatives, asking questions and contributions towards helping the cyber jihad (Weimann, 2014). All terrorist organizations are using YouTube, Twitter, Facebook, and Instagram as online platforms for their activities. Terrorists or the global jihadists use social media to perform the activities such as spreading propaganda, psychological motivation and tutoring weapons usage (Weimann, 2014).

5. Conclusion

After the review of definitions from different researchers and international bodies, the hate speech is defined as "any speech, which attacks an individual or a group with an intention to hurt or disrespect based on identity". Once the hatred is expressed, hurting or disrespecting depends on the perception of the victim. Similarly, cyber terrorism is defined as "Terrorism through utilization of internet and communication technologies and related tools. That is an attack carried out on a targeted group such as an individual, place or any object using computing systems, Internet, stored information and knowledge of software with an intention of making damage to targeted one."

While referring to the legal framework on hate speech from international bodies, it has been observed that all frameworks laws except ICERD on free speech are almost same and slightly different from hate speech. From the analysis of constitutional and legal articles of different countries, it has been found that some countries act softly and some countries act slightly harder against hate speech. This indicates that laws on hate speech are not same in all the countries. Online social networks play an important role in terrorist activities by supporting them with advertisements towards recruitments, dissemination of information and planning and executing the attacks.

The review of gender-based hate speech indicates that an abuse and harassment against female disappoint them and as a consequence, they move towards terrorist organizations to join as a member. Based on clothing style of a person, people will think that he belongs to a particular religion and start hating him verbally after a man-made or natural disaster event. Racist hate speech takes place with respect to the natural appearance of a person and the consequence is minority group will feel very bad about their natural status. Hate speech on disabled persons lead to more disability of the victim in terms of mental and physical conditions. Disabled women are more vulnerable to hatred attack than non-disabled women. A review on hybrid hate speech indicates that terrorist attacks lead to generation and propagation of hate speech over the internet. Human behavior can be predicted by analyzing social networks contents following terrorist events.

Cyber-terrorist networks contain features like high secrecy and hidden relationships of their members. Different languages like an act of violence, the narratives and messages are used by the terrorists to describe an incident or to persuade would be members of their organization. An intention of a terrorist organization is to create death centered militants with benefits in the afterlife. With terrorist groups, women are undervalued and considered differently based on the situation. Youth are used for criminal activities by terrorist organizations. Only a fraction of users misuse the benefits of social networks, which results in tremendous loss to the society with life and property related threats.

The overall conclusion is, the existence of online social networks led to increases in features such as contact establishment, message exchange, information sharing and news posting with the penalties such as hate speech, hate crime, cyberterrorism, and extremism. It has been identified that by framing proper policies from the government in association with the Internet Service Providers (ISPs) and online social networks, countering both hate speech and terrorism is efficient and effective. Therefore, there is a necessity to develop policies and methods to prevent and control these online activities.

As women are one of the targets of online hate speech, it is necessary to have mandatory gender information while creating online social network accounts. In case of any suspect, this gender identity information can be used to watch internet traffic to and from female accounts while maintaining the freedom of expression. With this knowledge, the possibility of joining a female to any terrorist organizations can be reduced. Other possible approaches to counter hate speech are speech vs. speech, education and training, public awareness meeting on hate speech, making public more tolerant, usage of hate speech monitoring systems, and television broadcast programmes. As a

future work, the researchers can work towards any of these approaches to counter hate speech efficiently.

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