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# EXTREMISM AND VIOLENCE AND THEIR RELATIONSHIP TO HATE SPEECH IN THE VIRTUAL ENVIRONMENT: AN APPLIED THEORETICAL STUDY OF THE CITY OF HAIL AS A MODEL

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## Abstract:

This study aims to investigate the relationship between online hate speech and the prevalence of extremism and violence in the virtual environment, using the city of Hail as a model case study. Hate speech, extremism and violence are interlinked with each other and effects the psychological health of an individual. The study used a quantitative approach to conduct the study. A survey was used to collect data from the participants of the study using a 5 point Likert scale. Through the use of SPSS, the data was analyzed to obtain nuanced analysis of the problem at hand. The results of the data revealed that respondents are exposed to hate speech in the virtual environments, their images and videos are used to tarnish their reputation in the virtual environment, they also observer reciprocity when exposed to virtual environments, and the respondents reported that extremism and violence had social and psychological impact. The results revealed that extremism, violence, and hate speech are observed in the virtual environment.

**Key word:** Extremism; violence; hate speech; the virtual environment; the city of Hail

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## INTRODUCTION:

The concept of hate speech, extremism, and violence are intertwined and if not well-handled, causes a lot of chaos to the affected individuals, groups, or societies (Govers et al., 2023). The use of social media platform is one of the ways through which incidences of hate speech surface since it can be easily spread through the online platform. This has in return fostered the increase in cases of extremism, radicalism, and violent incidences which threaten international security and stability. Internet and social media platforms have become a source of spreading extremist thoughts and radicalized ideas that spread massively through the audience (Ummah, 2020). The increase of digital technologies has led to an increase of extremism by serving as a platform for breeding like-minded people to connect (Sunstein, 2018). With the advent of digital methods like AI tools, doxing, and meme warfare the methods of extremism has changed and evolved (Braddock et al., 2024) and even the different and advanced forms of extremism as involuntary celibates, Groypers, and Eco fascism (Regehr, 2022). It's difficult to conceptualize extremism in general and online extremism in particular. The context-dependent character of (online) extremism makes it difficult to define in a way that is widely accepted: The term "extremism" itself describes a departure from anything that is (more) "ordinary," "mainstream," or "normal." It is value-free and intrinsically relative (Risius et al., 2024). Thereby "Online extremism or virtual extremism is related to, engaged in, or perpetrated by groups or individuals that hold views considered to be doctrinally extremist" (Winter et al., 2020). Extremism usually entails animosity for a group that is perceived as "foreign" due to a diametrically opposed trait or belief. Fundamental elements of extremism can arise from political agony, opportunities and power voids, as well as social alienation and marginalization (Kinnvall & Capelos, 2021). Extremists get together due to animosity and a sense of unfairness from a "out-group" of individuals or groups who do not share their viewpoints; this is usually done in a "us vs. them" fashion (Collins, 2022).

### The big brown

Hate speech on the other hand is defined as a means of communication that criticizes a person on the basis of religion color, race, ethnicity, or any kind of political affiliation (Zhang & Luo, 2019). Social deviance is a theory that helps explain hate speech that appears online. The word is used to describe a wide range of activities, from minor norm-violating actions to violent crimes against others. It views online hate as a form of deviant communication since it goes against social norms, common cultural standards, and rules in social group contexts (Castaño-Pulgarín et al., 2021). A consensus of several studies show that hate speech and extremism are equivalent. Therefore, researchers approach extremism as an affiliated form of hate speech (Govers et al., 2023).

Due to its cultural, social, and economic background and situation, the city of Hail can be considered as a useful case-study for investigating the tendencies of hate speech, extremism, and violence in the social network. Based on the analysis of the Main factors of Hail's disasters, as well as the experience and attitudes of its inhabitants, the findings of this study can be considered as having a certain practical value oriented to the development of effective prevention measures and policies.

The spread of the phenomenon of extremism and violence in the surrounding environment has strong implications in the virtual environments, which have become extensions of reality, and their impacts have become dire for a society in adopting violent behavior at the individual and societal levels. Therefore, an important question arises here: what are the reasons and motives that have made hate speech increase in the virtual environment?

#### **Research Problem:**

Virtual environments in today's society have become crucial means through which people communicate as well as interact. To note, these online platforms are manifold, which has enhanced social, cultural, and economic interactions; however, every digital environment has its peculiarities and limitations. Some concerns include the role of Virtual environment in the promotion of extremism and violence. The present study aims at establishing how virtual environment impacts people as interactor, sender, receiver and user, more so in political and social realms which heavily rely on soft power as compared to force. The purpose of this study is the identification of the processes, by which virtual environments promote far-right attitudes and violence in order to reveal the consequences of such findings for any human communication and societal order..

#### **1.3. Research Objectives:**

1. To assess the nature of hate speech, impersonation, and account hacking among users in the City of Hail in virtual settings.
2. To examine the emotional and psychological effects of being exposed to different types of virtual violence, such as the anxiety brought on by seeing violent messages from strangers.
3. To look into how people, react behaviorally and socially when exposed to damaging activities and violent discourse in virtual environments.

#### **1.3. Research Questions:**

To achieve the stated objectives, the study aims to answer the following questions:

1. What is the nature of hate speech, impersonation, and account hacking practiced in virtual environments?
2. What are the psychological and emotional effects faced by the user after being exposed to hate speech in virtual environments?

#### **1.4. Study Hypotheses:**

1. There is exposure to hate speech in virtual environments.
2. There is exposure to impersonation of electronic accounts in virtual environments.
3. There is a posting of pictures and videos of the user to tarnish their reputation in virtual environments.
4. There is exposure to hacking of the user account in virtual environments.
5. There is a feeling of anxiety when exposed to anonymous messages carrying violent values in in virtual environments.
6. There is reciprocity when exposed to violent speech in virtual environments.
7. Extremism and violence have a social and psychological impact in virtual environments.

## LITERATURE REVIEW

#### **Definition of Media Violence:**

Studies to define media violence as follows: "The depiction of a public physical event that harms, kills, or threatens to do so. Some acts are usually defined as involving mediated violence in order to spread fear and express a position that is usually political." Media violence is also considered psychological, intellectual and moral violence, as it includes every media work that contains appearances, actions, words, symbols, relationships, values, ideals, and principles that are incompatible with socially acceptable behavior and

common human nature (Duxbury et al., 2018). The Canadian Center for Media Studies defines media violence in a study on the depiction of violence on Canadian television as: "Any psychological or moral assault or any act that causes an undesirable psychological state such as anxiety, fear, humiliation, ridicule, loss of value, or tenderness and love", damage to reputation, feelings of guilt... that is, situations that generate a feeling of non-physical pain. Most authors consider scenes of violence as a simple phenomenon, and there may be justification for researching its meaning (Brison, 2023). Among the studies conducted on the new media and communication environment in the city of Hail is a study conducted by Abdallah Tani, 2023 on The quest for creating a new media and communication environment is at the core of the competitive advantages, merits, and marketing strengths of the so-called city economy, especially that the effectiveness of new media and institutional communication is reliant on interaction with existing or potential customers or stakeholders as well as maintaining a strong electronic reputation. Interaction can take various forms, such as trade fairs, marketing promotions, customer relation initiatives, and other efforts through which organizations interact with the public using electronic means in order to meet customer needs more effectively. As many large companies have dedicated departments for managing investor relations, a question arises: is the new institutional media and communication environment in the Hail region appropriate for promoting digital reputation and attaining local and international competitiveness in the region's development? (Abdallah Tani and Ysaad, 2023). It is sufficient to remember its importance, and from this quantity one can conclude its impact. Hemluta noticed that violence in Western films is of a neutral character, because they content adopts a unified template, and it is certain that the meaning of the violence displayed, as it is for the researchers, does not differ from its meaning in reality, as a violent act is a violent act. The only meaning for a violent act is that given to it by social ethics or other courts. Otherwise, violence becomes are just pure play (e.g., amusement, entertainment), and does not have a meaning in itself, as is the case in cartoons and some films (Glucksman, 2000).

Abdallah Tani, 2021 Conducted a study on Information Society, the term spread in the West and USA, primarily it served as a continuation of the theories that spawned the terms of the industrial society and post-industrial, as is evident from the "title" At the basis of the label technological optimism of capacity to resolve many social problems which are intractable by using the information, other than the descriptive, which codifies and inaugurates the objective spread of "computing" and "media" that interspersed with the social fabric as a whole. And often draws attention to focus on the Japanese experience, which provides an example of the information society in Japan, an ambitious program that aims to create and develop the social structure - Computers distinct include production, distribution and transportation services and management, education and livelihoods, and this social structure - Computer permeate networks télé-computing (télé in Greek meaning away and dimension) so that people can through them to solve their own professional problems by direct contact, and there is a national policy in Japan for the creation and establishment of "industry knowledge" as well as projects to reform the country's social development, including the systems of rehabilitation workforce and of re-distribution, so that the community becomes in its Supreme stages "j - Masuda," who is one of the leaders of that program - to a consumer society and prosperous of high class, and then going to solve all personal problems - according to this belief - and its requirement of creativity and self-realization through the global use of planetary information, so they attaches a great hopes on the "globalization" and "internationalization" of the trends of new information - that is for "computing" the society and its global planetary "medias" (Abdallah Tani, 2021).

#### **Symbolic Violence via Facebook:**

Today, symbolic violence is present in almost all forms and levels of media content. Violence appears in all forms of communication in modern life, and modern technology has produced new forms of communication (DeCook, 2018). It exists in mobile phones, video games, and the Internet, all of which have become carriers penetrated by violence, which is a dominant element in the content of the older forms of communication.

Among the most important risks that threaten social life and social communication in virtual societies; Violence in all its forms circulated in the virtual space. Social, communicative and psychological studies in this field showed the negative effects that society is witnessing as a result of the increasing phenomenon. These spaces have become a platform for violent and hate speech, instead of raising awareness in combating and preventing it. Manifestations of violence and hate speech have become entrenched in social networks as a result of lack of awareness on the one hand, and on the other hand, due to the user's lack of reservation to use phrases or publish pictures or contents offensive to individuals and institutions through the technique of installing photos and videos ..., as a matter of taking into account the reasons, identities have become Anonymous or borrowed default uses verbal violence to pass its agenda and tear the social and emotional fabric of society. Hate speech that is disseminated through social networks usually leads to intolerance and generates hateful speeches. Before it multiplies, it spreads and amplifies through social media channels, and sometimes these echoes resonate. Contents through TV channels and newspapers alike, and have a special capacity for existing tensions between different groups and ignite violence among their members, as they

may raise new concerns about the association of inflammatory discourse through these spaces with acts of violence. It may be a motive for accidents that contribute to psychological, social, economic, emotional, material and physical harm to people. The use of social networks has become aimed at distorting facts, spreading falsehood, and seditious violent discourse. As for the methods of preventing violence, it requires addressing the factors leading to violence and treating them in a scientific way, and preventive efforts must focus on the stages of childhood and adolescence and the role of educational institutions in this, given that the behavior of violence consists mostly of early childhood, according to psychological studies (Abdallah Tani and Alrasheed, 2023).

It is evident from previous studies concerned with violence, including linguistic, physical, and symbolic forms, violence begins with language. By examining behaviors such as spreading ideologies or profanity, slandering, cursing, sharing information, and influencing emotions, and most often in deliberative violence, it is noticed that the most commonly discussed form of violence is physical violence, followed by linguistic violence; however, the danger of spreading violence is mitigated when proper guidance and planning are practiced (Al-Tamimi, 2022). Refusing and preventing linguistic clashes comes in various forms: irrational, extended, emotional, and rational. As for the relationship of linguistic communication to digital power, studies have confirmed the relationship of power and information discourse on: the face of control and domination (physical violence), or the face of voluntary submission (symbolic violence), and it has been proven that language cannot be separated from the power held by politicians, just as knowledge cannot be separated from power to control (Kramsch, 2020).

#### **Uses and Gratifications Theory:**

The uses and gratifications theory assumes that the audience is active. Ancient theories viewed the audience as a passive recipient in the face of the power of messages and their effective influence (Haridakis & Humphries, 2019). However, recently the concept of a stubborn audience has emerged; according to this concept, the audience searches for what it wants to be exposed to and controls the choice of the means that present this content (Nelson, 2021).

In other words, the theory replaced the tradition view of the audience is passive and powerless and can easily be influenced with a new view of the audience as active, selecting the messages deemed interesting and the means of communication in order to ultimately satisfy the audience's needs (Murunga & Diang'a, 2021).

#### **The Concept of violence:**

The most basic definition of violence is that it is the causing of harm to others (Harris, 2020). Linguistically, the word "violence" may refer to verbal or physical actions violence is said with or against it, meaning to take it with force and force, so it is violent. Violence in the Arabic language means breach of command and lack of kindness towards and against others, and violent acts include taking by force, and blaming (Douki Dedieu et al., 2021). In the Cambridge Dictionary of Sociology, the essence of violence is the infliction of physical harm by one person to another; the dictionary states forms of violence that include beating, rape, torture, and murder (Dwyer, 2022)

#### **Digital and linguistic and symbolic violence:**

Violence can be practiced in various aspects of life in which language is used; in addition to daily life and individual communication, violence is practiced using contemporary technologies such as television (Woodlock et al., 2020) and informal and cultural products of society with all its literary genres, such as novels and it is also found in the largest literary product circulated among the Arabs, which is poetry (Ibn al-Walid, 2007). However, the global boom of information and communication technologies (ICTs) has made linguistic violence spread in more places, and even haunts people whether they like it or not, as social media applications and digital revolution has become closely linked to people, especially those from younger age groups, who are the backbone and backbone of societies (Agwuocha, 2019). People rely on these programs to receive information, including political information, and even receive it directly via their mobile device more than through any other means.

#### **Forms of Violence:**

Forms of violence are distinguished from non-material forms of social power, such as coercion, force, ideology, or social force. Violence is the most extreme expression of power, as it is characterized by the strongest potential for total power. Violence can also be a spontaneous expression of power relations (Barlow & Barlow, 2018). Daily verbal interactions and cultural and theatrical performances may include forms of "symbolic violence" (DeCook, 2018), and violence may be in what people are familiar with in terms of linguistic communication between themselves or between themselves and the contemporary technological innovations.

#### **Violence on Social Media:**

Violence of modern digital technology is evident in its ubiquity, the dependence of the speaker and the addressee on violence in interactions, and the appeal of using technologies that provokes communicators to use it (Sánchez Moya, 2019).

A language conveying violence through scenes or terminology during socialization stage implicitly conveys violent ideas. The negative outcomes are further exacerbated with spread of technology that facilitates the spread of disturbing images (Sánchez Moya, 2019).

## RESEARCH METHODOLOGY

The present study uses quantitative approach to explore the relationship between extremism and violence in the virtual environment. Quantitative approach is used to address the rationale of the study and to make predictions that can be generalized to a wider audience (Taherdoost, 2022). In order to achieve the objectives of the study, the researcher used the descriptive analytical method. descriptive research method is used to study an existing phenomenon and make recommendations through the collected data (Pimentel, 2018).

### Study Population and Sample:

The data was collected from the individuals residing in the city of hail, Saudi Arabia. The researcher used Random sampling technique to collect data from the individuals who uses virtual or social media platforms. Random sampling is a technique that gives every member of the population and equal chance of being selected for the research (Sharma, 2017). The sample of the current study included (130) individuals representing the population of the study.

### Data Collection

Data was collected as a primary source from the audience that uses virtual or social media platforms. A survey having 30 questions was distributed among the users of the platform. Survey questionnaire consisted of questions that aimed to identify the use of violence and extremism in the virtual platforms. A 5 point Likert scale was used as a tool to collect data.

### Data Analysis

The collected data was analysed using SPSS. Percentage of the responses was calculated to predict the outcomes of the responses

## Findings

### Characteristics of the Study Sample:

Table 1 shows the representation of respondents with respect to the gender. majority of the respondents were male with a percentage of (85.4%), while only (14.6%) were female.

M	Sex	n	Percentage
1	Male	111	85.4 %
2	Female	19	14.6 %
Total		130	100.0 %

Table 1: Distribution of sample members according to gender

Table 2 shows the distribution of sample members according to age. Majority of the respondents were between the age group of 18-24 i.e.55.4%, 15 of the respondents were from the age 25-29 i.e. 11.5%, (15.4%) were within the age range of 30-34 years old, 10.0% were within the age range of 35-40 years old, while 7.7% were over 40 years old.

M	Age	n	Percentage
1	18-24	72	55.4 %
2	25-29	15	11.5 %
3	30-34	20	15.4 %
4	35-40	13	10.0 %
5	40 and above	10	7.7 %
Total		130	100.0 %

Table 2: Distribution of sample members according to age

Table 4 shows the distribution of the respondents according to their use of internet. From 130 respondents only 106 were connected to the internet i.e.81.5%. The results also showed that majority of the respondents i.e. 66.9% spent more than 1 hour on internet or virtual environment, 10.8% of the respondents spent less than one hour, whereas, only 22.3% spent one hour on the internet. Regarding respondents online circle 58.5%of their online circle consisted of friends, 15.4% of the respondents' online circle consisted of family members, whereas, 7.7% of the online circle consisted of strangers. From 130 respondents 110 i.e. 84.6%

reported that they use pseudonym while using internet and only 20 i.e. 15.4% respondents used their original name. Also, 106 i.e. 81.5% reported that internet helped them find friends online.

M	Are you connected to the Internet?	n	Percentage
1	No	24	18.5 %
2	Yes	106	81.5 %
M	How much time do you spend on the Internet (virtual environment)	n	Percentage
1	Less than one hour	14	10.8 %
2	One hour	29	22.3 %
3	More than one hour	87	66.9 %
M	What does your online communication circle consist of?	n	Percentage
1	Friends	76	58.5 %
2	Family members	20	15.4 %
3	Colleagues	10	7.7 %
4	Strangers	10	7.7 %
5	Others	14	10.8 %
M	Do you use your real name or a pseudonym in your personal accounts in the virtual environment?	n	Percentage
1	My real name	110	84.6 %
2	My nickname	20	15.4 %
M	Did the virtual environment help you find friends with the characteristics you desire?	n	Percentage
1	No	24	18.5 %
2	Yes	106	81.5 %
Total		130	100.0 %

Table 3: Usage of Internets

Table 4 shows the respondents exposure to hate speech, extremism, and violence in the virtual environments. Exposure to hate speech has been reported by 29 respondents i.e. 22.3%, exposure to extremism in virtual environments is reported by 19 i.e. 14.6% respondents, whereas, 24 i.e. 18.5% responded to be exposed to violence in virtual environment.

M	Have you received or been exposed to hate speech in virtual environments?	n	Percentage
1	Strongly Disagree	39	30.0 %
2	Disagree	24	18.5 %
3	Neutral	33	25.4 %
4	Agree	5	3.8 %
5	Strongly Agree	29	22.3 %
M	Have you received or been exposed to extremist in virtual environments?	n	Percentage
1	Strongly Disagree	44	33.8 %
2	Disagree	14	10.8 %
3	Neutral	48	36.9 %
4	Agree	5	3.8 %
5	Strongly Agree	19	14.6 %
M	Have you received or been exposed to symbols of violence and extremism in virtual environments?	n	Percentage

1	Strongly Disagree	49	37.7 %
2	Disagree	14	10.8 %
3	Neutral	38	29.2 %
4	Agree	5	3.8 %
5	Strongly Agree	24	18.5 %
Total		130	100.0 %

Table 4: Exposure to hate speech, extremism, and violence in virtual environments

Table 5 represents the percentage of respondents whose accounts had been spoofed in virtual environments. From 130 respondents 18 i.e. 13.8% strongly agree that their accounts had been spoofed in the virtual environment, whereas, 59 i.e. 45.4% strongly disagree that their accounts had been spoofed in the virtual environment.

M	Has your account been spoofed in virtual environments?	n	Percentage
1	Strongly Disagree	59	45.4 %
2	Disagree	24	18.5 %
3	Neutral	29	22.3 %
4	Strongly Agree	18	13.8 %
Total		130	100.0 %

Table 5

Table 6 shows the results of respondents answering questions related to their image distortion in the virtual environment. Out of 130 respondents 9 i.e. 6.9% strongly agree that their pictures that defame their reputation have been used in the virtual environment. Whereas, 73 i.e. 56.2% strongly disagree that their pictures have been used to defame their reputation in the virtual environment. 6.9% of the respondents of the survey also agree that their videos have also been used to defame their reputation in the virtual environment, whereas, 63 i.e. 48.5% strongly disagree that their videos have been used to defame their reputation.

M	Have pictures of yourself, your relatives, or friends that defame your reputation been published in virtual environments?	n	Percentage
1	Strongly Disagree	73	56.2 %
2	Disagree	19	14.6 %
3	Neutral	24	18.5 %
4	Agree	5	3.8 %
5	Strongly Agree	9	6.9 %
M	Have video clips of yourself, your relatives or friends that defame your reputation been published in virtual environments?	n	Percentage
1	Strongly Disagree	63	48.5 %
2	Disagree	29	22.3 %
3	Neutral	22	16.9 %
4	Agree	7	5.4 %
5	Strongly Agree	9	6.9 %
Total		130	100.0 %

Table 6: Distorting reputation in virtual environments

When asked about the being hacked in the virtual environment, 10 i.e. 7.7% strongly agree that their accounts have been hacked in the virtual environment, (23.1%) moderately disagree on the statement, (15.4 %) do not agree or disagree, (5.4%) agree, whereas, 63 i.e. 48.5% strongly disagree that their accounts have been hacked in the virtual environments.

M	Have you been hacked into your account in virtual environments?	n	Percentage
1	Strongly Disagree	63	48.5 %
2	Disagree	30	23.1 %
3	Neutral	20	15.4 %
4	Agree	7	5.4 %
5	Strongly Agree	10	7.7 %
Total		130	100.0 %

Table 7

Table 8 shows the results of respondents who feel afraid of violence, hate speech, and extremism in the virtual environments. Majority of the respondents i.e. 52.3% strongly disagree that they felt afraid when exposed to extremism and violence, 18.5% disagree that they felt afraid, 18.5% do not agree or disagree, 7.7% agree, while 3.1% strongly agree. Anxiety level of the respondents increase when they are exposed to anonymous messages in virtual environments, 49.2% of the respondents strongly disagree with the statement that their anxiety increases when they are exposed to anonymous messages of violence and extremism in virtual environments, 22.3% moderately disagree on the statement, 14.6% do not agree or disagree, 6.9% agree, while 6.9% strongly agree. It is evident from the responses that 45.4% of the respondents strongly disagree with the statement that they feel nervous when they witness manifestations of violence in the virtual environment, 10.8% moderately disagree on the statement, 21.5% do not agree or disagree, 15.4% agree, 6.9% strongly agree.

M	I feel afraid while being exposed to extremism and violence in virtual environments	n	Percentage
1	Strongly Disagree	68	52.3 %
2	Disagree	24	18.5 %
3	Neutral	24	18.5 %
4	Agree	10	7.7 %
5	Strongly Agree	4	3.1 %
M	My anxiety increases when I am exposed to anonymous messages of violence and extremism in virtual environments	n	Percentage
1	Strongly Disagree	64	49.2 %
2	Disagree	29	22.3 %
3	Neutral	19	14.6 %
4	Agree	9	6.9 %
5	Strongly Agree	9	6.9 %
M	I get nervous when I see manifestations of violence in the virtual environment	n	Percentage
1	Strongly Disagree	59	45.4 %
2	Disagree	14	10.8 %
3	Neutral	28	21.5 %
4	Agree	20	15.4 %
5	Strongly Agree	9	6.9 %
Total		130	100.0 %

Table 8: Feeling of anxiety after exposed to anonymous messages

It is evident from Table No. 9 that 36.9% of the respondents strongly disagree with the statement that they reciprocate and respond to violent speech in virtual environments, 22.3% moderately disagree on the statement, 22.3% do not agree or disagree, 11.5% agree, while 6.9% strongly agree. Whereas, 34.6% of the respondents strongly disagree with the statement they defend themselves with violence and extremism after being exposed to forms of violence in the virtual environment, (10.8%) moderately disagree on the statement, (28.5%) do not agree or disagree, (15.4%) agree, while (10.8%) strongly agree.



M	I reciprocate and respond to violent discourse in virtual environments	n	Percentage
1	Strongly Disagree	48	36.9 %
2	Disagree	29	22.3 %
3	Neutral	29	22.3 %
4	Agree	15	11.5 %
5	Strongly Agree	9	6.9 %
M	I defend myself with violence and extremism after being exposed to forms of violence in virtual environments	n	Percentage
1	Strongly Disagree	45	34.6 %
2	Disagree	14	10.8 %
3	Neutral	37	28.5 %
4	Agree	20	15.4 %
5	Strongly Agree	14	10.8 %
Total		130	100.0 %

Table9: Reciprocity in virtual environments

Table 10 shows that 15.4% of the respondents strongly deny that they defend themselves politely and calmly after being exposed to forms of violence in the virtual environment, 14.6% moderately disagree on the statement, 21.5% do not agree or disagree, 19.2% agree, 29.2% strongly agree.

M	I defend myself politely and calmly after being exposed to forms of violence in the virtual environment	n	Percentage
1	Strongly Disagree	20	15.4 %
2	Disagree	19	14.6 %
3	Neutral	28	21.5 %
4	Agree	25	19.2 %
5	Strongly Agree	38	29.2 %
Total		130	100.0 %

Table 10

Table 11 shows that 38.5% of respondents strongly disagree with the statement that extremism and violence in virtual environments have a social impact on them and the environment in which they live, 11.5% moderately disagree on the statement, 35.4% do not agree or disagree, while 14.6% strongly agree

M	Does extremism and violence in the virtual environment have a social impact on you and the environment in which you live?	n	Percentage
1	Strongly Disagree	50	38.5 %
2	Disagree	15	11.5 %
3	Neutral	46	35.4 %
4	Strongly Agree	19	14.6 %
Total		130	100.0 %

Table 11

Table 12 shows that 30.0% of the respondents strongly disagree with the statement that extremism and violence in virtual environments contribute to the spread of violence and extremism in society, 3.8% moderately agree, 28.5% do not agree or disagree, 11.5% agree, while 26.2% strongly agree.

M	Does extremism and violence in the virtual environment contribute to the spread of	n	Percentage
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	<b>violence and extremism in society? extremism and violence in the virtual environment contribute to the spread of violence and extremism in society?</b>		
1	Strongly Disagree	39	30.0 %
2	Disagree	5	3.8 %
3	Neutral	37	28.5 %
4	Agree	15	11.5 %
5	Strongly Agree	34	26.2 %
Total		130	100.0 %

Table 15

### DISCUSSION OF RESULTS AND HYPOTHESES:

S.no	Hypotheses	Accepted/Rejected
1.	There is exposure to hate speech in virtual environments	Accepted
2.	There is exposure to symbols of violence and extremism in virtual environments.	Accepted
3.	There is exposure to impersonation of electronic accounts in virtual environment.	Rejected
4.	There is a dissemination of pictures and videos of the user to distort his reputation in virtual environment.	Accepted
5.	There is a feeling of anxiety when exposed to anonymous messages carrying violent values in virtual environments.	Rejected
6.	There is reciprocity when exposed to violent speech in virtual environments.	Accepted

1. First hypothesis: There is exposure to hate speech in virtual environments.

It is evident from Table 4 that (30.0%) of the sample members strongly disagree that they have received hate speech from users in the virtual environment, (18.5%) disagree, (25.4%) do not agree or disagree, (3.8%) agree, while (22.3%) strongly agree.

Conclusion: The hypothesis is confirmed by evidence of the presence of hate speech by users in virtual environments, with (22.3%) of the sample members strongly agreeing, which is an expressive percentage of the presence of hate speech in virtual environments.

2. The second hypothesis: There is exposure to symbols of violence and extremism in virtual environments.

It is clear from Table 4 that (37.7%) of the sample members strongly disagree that they have received symbols of violence and extremism from users in virtual environments, (10.8%) disagree, (29.2%) do not agree or disagree, (3.8%) agree, while (18.5%) strongly agree.

Conclusion: The hypothesis is confirmed with evidence of exposure and receipt of symbols of violence and extremism by users in the virtual environment, with (18.5%) of sample members strongly agreeing. This is an expressive percentage of the presence of symbols of violence and extremism in virtual environments.

3. Third hypothesis: There is exposure to impersonation of electronic accounts in virtual environment.

It is clear from Table 5 that (45.4%) of the sample members strongly disagree with the statement that their accounts being impersonated in the virtual environment, (18.5%) disagree, (22.3%) do not agree or disagree, while (13.8%) strongly agree.

Conclusion: This hypothesis was not confirmed on the grounds that the recorded percentage was small to confirm the hypothesis, with only (13.8%) of sample members strongly agreeing that impersonation of their accounts in the virtual environment. It is a small relativity that refutes the hypothesis.

4. Fourth hypothesis: There is a dissemination of pictures and videos of the user to distort his reputation in virtual environment.

It is clear from Table 6 that (56.2%) of sample members strongly disagree that they have experienced publishing photos of themselves or of their relatives or friends that tarnish reputation in the virtual environment, (14.6%) disagree, (18.5%) do not agree or disagree, (3.8%) agree, while (6.9%) strongly agree. Conclusion: The hypothesis is confirmed with evidence that (6.9%) of sample members agree that they have been exposed to and received strongly agreeing to publish pictures of themselves, their relatives, or friends that distort reputation in the virtual environment. This is a significant percentage of people publishing pictures of themselves, their relatives, or their friends that tarnish their reputation in the virtual environment.

5. Fifth hypothesis: There is a feeling of anxiety when exposed to anonymous messages carrying violent values in virtual environments.

It is evident from Table 8 that (49.2%) of sample members strongly disagree with the increase in their anxiety when exposed to anonymous messages of violence and extremism in virtual environments, (22.3%) disagree, (14.6%) do not agree or disagree, (6.9%) agree, while (6.9%) strongly agree.

Conclusion: This hypothesis was not confirmed on the grounds that (6.9%) of sample members have been exposed to and received anonymous messages of violence and extremism, and they strongly agreed that their anxiety increased when they were exposed to anonymous messages of violence and extremism in the virtual environment. This is a percentage that expresses the increase in user anxiety when they are exposed to anonymous messages of violence and extremism in the virtual environment.

6. Sixth hypothesis: There is reciprocity when exposed to violent speech in virtual environments.

It is evident from Table 9 that (36.9%) of sample members strongly disagree with reciprocating and responding to violent speech in virtual environments, (22.3%) agree, (22.3%) do not agree or disagree, (11.5%) agree, while (26.2%) strongly agree.

Conclusion: The hypothesis is confirmed with evidence that (26.2%) of sample members agree that there is reciprocity when exposed to violent speech in virtual environments.

## CONCLUSION

This study focuses on the interaction between extremism, violence, and hate speech and addresses the problem using Hail as an example. The study demonstrates a strong correlation in having the radicalization of the extremists regarding the use of online hate speeches to incite violence. This exemplifies that extremism is not only a phenomenon arising out of the online milieu, or space, but can be given birth and nurtured in it and translated into operations in the physical world. Thus, by presenting case study of Hail, the investigation offers a concrete example of the tendencies happening globally and stresses the importance of creation of the efficient approaches to combat the threats resulting from use of the hate speech in the social networks and the propaganda of the violence.

### Strengths and Limitations

The study tackles a topic that is very relevant to modern society and offers insightful information about the dynamics of violence, extremism, and hate speech in the internet era. Focusing on the city of Hail, the study provides in-depth, context-specific results that improve comprehension of local dynamics and add to the international conversation on the subject. The study uses a strong theoretical framework that combines ideas from communication studies, psychology, and sociology to provide a thorough examination of the problems at hand. The study's conclusions are reinforced by the inclusion of actual data, which offers verifiable proof of the connections between extremism, violence, and hate speech. The findings' applicability to other areas or nations with distinct geopolitical situations and internet surroundings may be limited by their exclusive emphasis on Hail. Due to the size and extent of the data collection, the study may be limited and may miss larger trends or less obvious manifestations of hate speech and extremism on the internet.

### Recommendation

Governments and tech firms should work together to improve online content regulation and monitoring in order to quickly detect and eliminate hate speech. Develop educational initiatives that support critical thinking and digital literacy, enabling people to identify and reject extremist propaganda. Promote neighborhood-based programs that increase communication and understanding between various communities, which will lessen the attractiveness of radical ideas. To confirm the results and deepen our understanding of the worldwide effects of hate speech on the internet, carry out additional study in other geographic situations.

Credit authorship contribution statement

**Mohammed EL Nadir Abdallah Tani**, zahia El-ssaid Yssaad: Conceptualization, Methodology, Software, Validation, Formal analysis, Resources.

**Arif Juma Biro Trouk, Amira Mohammed Al-Khidir**: Supervision, writing – original draft

**Nassredine Cheikh Bouhenni, Maha Thaid Al-Shammari**: Writing – review & editing, Visualization.

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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#### Data availability

No data was used for the research described in the article.

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