

# Media and Communication Review (MCR)

Volume 4 Issue 1, Spring 2024

ISSN (P): 2790-8356, ISSN (E): 2790-8364

Homepage: <https://journals.umt.edu.pk/index.php/mcr>



Article QR



**Title:** Cultivation of Religious Extremism through Facebook: The Case of Pakistan

**Author (s):** Abid Ali Butt<sup>1</sup>, and Ayesha Ashfaq<sup>2</sup>


**Affiliation (s):** <sup>1</sup>University of Punjab, Lahore, Pakistan  
<sup>2</sup>University of Punjab, Lahore, Pakistan

**DOI:** <https://doi.org/10.32350/mcr.41.06>

**History:** Received: January 14, 2024, Revised: May 23, 2024, Accepted: May 27, 2024,  
Published: June 29, 2024

**Citation:** Butt, A. A., & Ashfaq, A. (2024). Cultivation of religious extremism through Facebook: The case of Pakistan. *Media and Communication Review*, 4(1), 115–146. <https://doi.org/10.32350/mcr.41.06>

**Copyright:** © The Authors

**Licensing:**  This article is open access and is distributed under the terms of [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

**Conflict of Interest:** Author(s) declared no conflict of interest



A publication of  
The School of Media and Communication Studies  
University of Management and Technology, Lahore, Pakistan

# Cultivation of Religious Extremism through Facebook: The Case of Pakistan

Abid Ali Butt<sup>1\*</sup>, and Ayesha Ashfaq<sup>2</sup>

<sup>1</sup>School of Communication Studies, University of Punjab, Lahore, Pakistan

<sup>2</sup>School of Communication Studies, University of Punjab, Lahore, Pakistan

## Abstract

The study aims to examine the role of Facebook in cultivating religious extremism among its users in Pakistan. A major portion of existing literature presents social media, specifically Facebook as a tool used by extremists and terrorist groups in igniting and spreading extremist views around the world, however little research has been done to evaluate the effects of religious content on the Facebook on its users in Pakistan. A quantitative research design has been applied to answer a multidimensional range of questions covering various effects of religious content on Facebook users and the factors involved in the usage of Facebook for religious extremism. A comprehensive nationwide survey from systematically selected 1250 Facebook users from four (04) provincial and one (1) federal capitals of Pakistan under the broader theoretical foundations of Cultivation Theory has been conducted to study the desired effects. The findings of the study showed a higher probability of religious extremism including hate speech, sectarianism, and radicalization with the higher usage of Facebook among Pakistani users.

**Keywords:** Facebook, online hate speech, religious extremism, radicalization, sectarianism

## Introduction

In today's digitally connected, highly interlinked yet equally polarized world, social media platforms have become the foundations of modern-day communication. Social media have practically revolutionized the way human beings interact with each other. With its power to overcome distance barriers, cross border controls, and tackle real-world communication hurdles, this digital link has gained phenomenal importance in our lives (Banks, [2010](#)).

---

\*Corresponding Author: [abidali.buic@bahira.edu.pk](mailto:abidali.buic@bahira.edu.pk)

Social media apps create a virtual fantasy or at least create an illusion of it, where a user can express himself more freely and with more power than he can in the real world. The wide global range, elements of anonymity and immediacy, and providing a platform to be heard have made social media even more wanted tool of expression in modern times. With the elements of speed, ease of access for everyone, and wide reachability, social media have changed the dimensions of public communication at a very fast pace (Memon et al., [2015](#)).

The growth of Social media users in Pakistan is no different story as there has been a rapid growth of Facebook and Twitter users across the country in the last 5 years (Ittefaq et al., [2022](#)). This trend of social media usage has practically replaced the traditional media of communication as it is no longer just a platform to create and share content for information and entertainment.

This new era of information sharing and freedom of speech does not come without a price, however, it brings new threats along with opportunities (Soral et al., [2020](#)). Due to social media's infiltration, many democratic societies are becoming more and more polarized in terms of "us and them". Some other significant effects of social media are the trolling of online victims, cyberbullying, vile and abusive comments, and online hate speech and harassment (Abbasi, [2018](#)).

### **Social Media and Religious Extremism**

Social media provides a restriction-free platform with anonymity to its users, which tempts them to use it more radically (Koehler, [2014](#)). Social media, like a double-edged sword, can create a faster, easier, restriction-free environment that enables the users to utilize it as a critical social change agent. However, this also gives rise to some newer challenges, such as, misuse by the criminally minded personnel for destructive and divisive agendas (Guiora, [2013](#)). Social media provides channels that are informal, large group-based, cheaper, anonymous, and decentralized (Hale, [2012](#); Neumann, [2013](#)). This enables the extremist networks to bypass the time and space barriers (Weimann, [2015](#)).

It is ironic to see that most of the ideologically motivated groups who are against social media and freedom of expression, in general, have a strong presence on Social media themselves and use it for their agendas effectively. Facebook has been excessively used in the past by young

sympathizers and supporters of extremist groups to share videos and images furthering their agendas (Wacks et al., [2021](#)).

Social media platforms like Twitter are even more useful for the online extremist elements as the originator of such tweets is often more difficult to locate making it easier for such extremist communicators to remain anonymous (Crettiez, [2011](#); Saltman & Russell, [2014](#)). The ability to tweet and comment in local languages also makes it easier for these extremist elements to use these platforms for their campaigning (Saltman & Russell, [2014](#)).

### **Social Media in Pakistan**

In January 2024, there are around 111 million people in Pakistan in January 2024 who have internet access (broadband, 3G, 4G, cellular data), which makes up around 45.7 % of Pakistan's total population and this number has increased by 24 million or 27 % in last 1 year (Kemp, [2024](#)). About 71.70 million Pakistanis that is 29.5 % of Pakistan's total population use various social media platforms to get information, entertainment, and to express their ideas. Facebook with more than 44.5 million users in February 2024 is found to be the biggest social media platform in Pakistan. This number increased by 7.2 million or 19.3% between 2023 and 2024 the resounding majority of 80.1% of Facebook users of Pakistan consists of male and only 19.9% of users are females. Around 72% of total Facebook users of Pakistan are between the ages of 18 to 34 making it the youth-dominated social media platform (Ittefaq et al., [2022](#)).

According to Kemp, there are around 4.50 million X (previously Twitter) users in Pakistan in early 2024 with 80% male and 20% female users. X is not as popular as Facebook in Pakistan, yet its popularity is increasing every day and more and more prominent figures are using X to express their ideas online. Other popular social media platforms in Pakistan include Tik Tok with 54.38 million users, Instagram 17.30 million, Snapchat with 30.21 million users, and LinkedIn with 12 million users in January 2024 (Kemp, [2024](#)).

Religious Extremism has been on the rise in Pakistan for almost half a century now, especially with a significant upsurge after 2000 (Arshad, [2023](#)). According to United States International Commission on International Religious Freedom, Pakistan is ranked amongst the worst countries in the religious freedom index in the world. Pakistan was placed

on the list of “Countries of particular concern (CPCs) by the USCIRF in 2024 (United State Commission International Religious Freedom [USCIRF], [2024](#)). This becomes even more crucial considering that 96.28 % of the Pakistani population consists of Muslims amongst whom 87% identify as true practicing Muslims (PBS Census, [2023](#)) This phenomenon had a huge impact on the social fabric of Pakistan as how people behaved in terms of their religious beliefs, especially after the advent of social media in the country.

As per Data Reportal 2024, 71.70 million Pakistanis actively use social media daily primarily for their political, social, and religious interactions. Facebook with more than 44.5 users is the most popular and most frequently used platform in the country. Multiple recent studies show that Facebook has been used for spreading hate speech, religiously extremist views, and questionable content to further the violent agendas of certain sections of society (Hasangani, [2022](#)). Considering the recent acts of religious extremism such as Sialkot lynching case, Jaranwala blasphemy case etc. either initiated or fueled by the social media campaigns in Pakistan, this becomes even more important to understand.

Despite the growing concern about the role of social media in the promoting religious extremism, there is a lack of empirical research on the specific ways in which Facebook usage influences the beliefs of its users.

Thus, the aim of this study is to understand the relationship between Facebook usage and its effects on religious extremism among its users in Pakistan. Collecting quantitative data from active Facebook users across the country through a nationwide survey is an attempt to understand the relationship between Facebook usage and religious extremism. The study is expected to serve as a significant addition to the existing literature in order to understand the crucial phenomenon of social media's effects on religious behaviors in Pakistan.

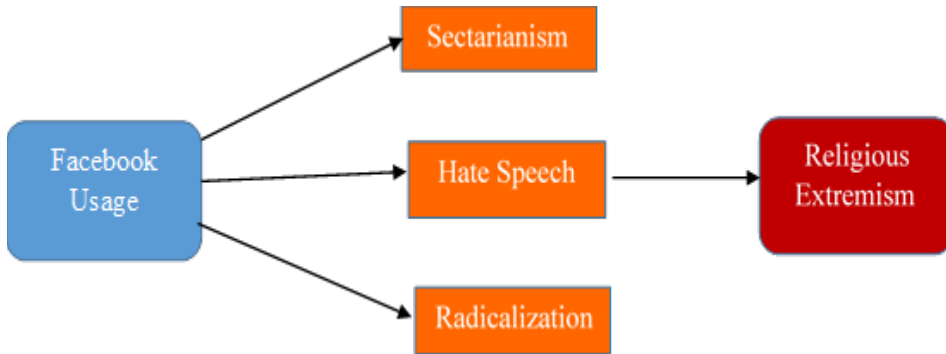
### **Hypotheses of the Study**

H<sub>1</sub>. Facebook usage is positively related to the higher level of sectarianism.

H<sub>2</sub>. Facebook usage is positively related to the higher level of hate speech.

H3. Facebook usage is positively related to the higher level of radicalization.

**Figure 1**  
*Conceptual Framework*



### Literature Review

Social media through its ability to connect a wide audience in cheaper, faster, and restraint-free mechanisms has become a central part of modern-day communication patterns involving all walks of life. Social media has enabled its users to create content making them proactive members of this structure rather than just being the audience which makes it even more powerful (Lietsala & Sirkkunen, [2008](#)).

### Social Media and Religious Extremism

Religious extremism is the exaggeration, abundance, or lack of moderate views, intolerance regarding diversity in religious opinions, or using force or fanatic behavior either in words or actions in any religious thought. (Al-Shamsi, [2019](#)).

Many scholars have defined religious extremism and multidimensional ideas relating to this concept in various ways. Radicalism or extremism (Kruglanski et al., [2018](#); Simon et al., [2013](#); Webber et al., [2017](#)) and religious fundamentalism (Altemeyer & Hunsberger, [1992](#); Liht et al., [2011](#); Williamson, [2010](#)), have been used by scholars in synonymous ways. However, many believed that there is a difference between these ideas where being fundamentalist means to be a rigid interpreter of ideas and extremism is usually associated with political ideas.

The extremists have repeatedly been attributed as certain groups fighting for their own political as well as ideological agendas against the widely accepted mainstream systems in the world such as ISIS in Syria and Iraq (Wibisono et al., [2019](#)). Silber and Bhatt ([2007](#)) also presented a model to explain religious extremism as turning extreme religious ideologies and ideas into violence against people.

Religious extremism can take many forms and shapes and can be triggered through various seemingly normal behaviors. Violent extremism can be mapped through attributes ranging from attitudes and emotions to certain beliefs and behaviors of individuals (Baruch et al., [2018](#)).

Pakistan since its inception has been fighting this menace of extremism in its quest to become a moderate Islamic state (Abbas, [2021](#)). Pakistan is among the top 5 major states that have been highly affected by extremism globally (Global Terrorism Index, [2023](#)). Pakistan through its various phases of political and military rule has been fighting the devil of extremism.

These extremists have been hurting Pakistan in marinating relations with other nations, national integration as well as economic stability (Abbas, [2021](#)).

Islam discourages any kind of distinction or discrimination based on gender, race, color, or nationality (Chahudhry, [1993](#)). It directs its followers to be moderate in their lifestyles and avoid extremes. Even in matters of religion, there is no compulsion in Islam (Holy Quran 2: 256).

Social Media's enormous influence on youth empowers it to shape their mindsets on a mass scale. Youngsters who spend excessive amounts of time on social media are more prone to social media's effect. The sociopolitical behaviors of youth and their actions are mostly shaped by their responses to social media's content and popular views presented on it (Siddiq-Agha, [2010](#)).

The double-edged sword of social media has also created a constant trouble for law enforcement agencies and governments across the globe in countering the presence of online extremist content and real-time planning of creating civil unrest. This has resulted in a swift tilt by social media towards the dark side of information dissemination to promote hate speech, extremist ideas through fake news, and intergroup conflict (Lovink, [2013](#); Morozov, [2012](#)) giving governments a justification to scrutinize tight

control over previously constraint-free media and legitimizing their acts for national security and community safety (Amoore & Goede, [2008](#)).

### **Social Media and Hate Speech**

A problematic yet highly prevalent form of religious extremism is hate speech. Hate speech can be defined as any type of speech, in whole or in part, to harm a specific group of people with an offense motivated approach by the offender. In this broader understanding, hate speech has a wide scope and can be instigated by many factors such as race, religion, sexual orientation, disability, nationality, gender, ethnicity, and even physical characteristics (Silva et al., [2016](#))

Hate speech is also defined as any statement that is designed or intended to defame or harm another person using inferior language and curial or hurtful words (Hamidu, [2019](#)).

Over time, technological advancement is intensifying the new forms of hate and online bullying and abuse (Naz et al., [2021](#)). The power of online or social media helps its users to remain hidden while expressing hate speech against anyone whom they disagree with (Durrani et al., [2021](#)). Such hate speech can be used to target, dehumanize or degrade its victims online, both individually and in groups (Cohen, [2011](#)).

Furthermore, it may also be categorized as dangerous speech, that is a speech that can result in physical violence (Brubaker & Cooper, [2000](#)), or fear speech, that is a speech that can induce feelings of fear (Buyse, [2014](#)). Such categories can help understand the underlying conditions for hate speech and can help society to act when there is a need to encounter such hate speech (Pohjonen & Udupa, [2017](#)).

A social media message can be termed as offensive if it attacks a minority, includes racial slurs, tries to silence a minority or certain group, promotes offensive and hate content, or even shows support to distasteful and offensive materials (Waseem & Hovy, [2016](#)).

Major Social media giants such as Facebook and X defined Hate speech as "content that attacks people based on their actual or perceived race, ethnicity, national origin, religion, sex, gender, sexual orientation, disability or disease". In many ways, it is a very comprehensive definition of hate speech and is a quote close to the legal definition of creating or sharing any



content targeting individuals or groups because of any characteristics they share (Saleem et al., [2017](#)).

Studies have shown that spending more time online, particularly on social media and expressing more political ideas with close online friends results in more vulnerability and chances of being a victim of online hate which further induces many negative outcomes for the individuals (Costello et al., [2018](#)).

Keeping in view the interactive nature of social media, a variety of studies have been conducted to investigate the contents of abusive or offensive language used on social media (Badjatiya et al., [2017](#)).

This online hate and abuse have a massive impact on the social, mental, and psychological health of the society. Various studies have proven the damaging effects of social media hate speech on society in various ways the trend is increasing day by day (Charitidis et al., [2020](#)).

The effects of online hate speech through social media are manifold. Online Hate speech marginalizes and dehumanizes the communities and it is a historical fact that discriminated, marginalized, and dehumanized communities are more and frequent targets of insult, prejudice, offense, and often violence (Cotik et al., [2020](#)).

Many surveys have concluded that online hate speech has strong offline consequences on both individuals and groups. There exists a strong relationship between online hate speech and hate crime in society as well (Del Vigna, et al., [2017](#)).

### **Social Media and Radicalization**

Radicalization is an extreme and advanced stage of extremism. Religious radicalization makes it an even more lethal form of extremism. Radicalization can be defined as a gradual and refined long-term process of persuasion occurring over time (Kursuncu et al., [2019](#)).

Digital media has been playing a significant role in expanding the horizons for the extremists to propagate, recruit and connect these like-minded extremists which result in the radicalization of the society (Mueller, [2010](#)).

A previous research shows that social media can work as a channel for radicalization in the following three (3) ways. First, it can be used to

illustrate and reinforce the ideas of extremism. Second, it can be used to create an easy pathway for like-minded hate mongers or form hate networks, and third, it normalizes the otherwise unacceptable hate speech in society (Denoeux & Carter, [2009](#); Hassan et al., [2020](#))

It is important to encounter radicalization through careful digital strategy and mechanism as encountering such hate material can cause emotional harm (Lee & Leets, [2002](#); Leets, [2002](#); Tynes, [2006](#)) and increase the risks of violent engagement (Foxman & Wolf, [2013](#)).

### **Social Media and Sectarianism in Pakistan**

A sect is a group or body of people who subscribe to a divergent or different path from other groups of the same religion (New Oxford dictionary). Mariam Webster Dictionary defines sectarianism as a narrow, bigoted, or limited scope or character which generally uses some sort of discrimination or prejudice from belonging to a particular group or sect where an individual considers himself superior from other groups. These sects are generally associated with religious, political, or ethnic groups (Malik, [2020](#)).

This sectarian violence in Pakistan is usually referred to as the famous majority Sunni and minority Shia sects of the country. There have also been various cases of sectarian violence among two major Hanafi groups, namely Barelvis and Deobandis over the years (Azad & Haidar, [2021](#)).

The Sunni Shia sectarian violence has been the most lethal and brutal sectarian conflict in Pakistan for the last 30 years with disproportionate consequences for the Shia minority (Kalin & Siddiqui, [2014](#)). State funding of major Sunni groups by Saudi Arabia and Shias by Iran in the regions is also a major element of conflict between the two groups (Fernandez & Farkas, [2021](#)).

As per the Pakistan Bureau of Statistics, Sunnis make up for 76.5 % of the Pakistani Muslim population whereas Shia is the second biggest group with around 15 % Population as per the 2017 census of Pakistan.

At the time of independence, the non-Muslim minority was about 23% of Pakistan which has now been reduced to a mere 3.7% due to extreme discrimination, separation of Bangladesh, intimidation, and occasionally forced conversions (Manchanda, [2009](#)). As per Census 2017, the Muslim

population of Pakistan is 96.47% with less than 4 % minorities in Pakistan Sookhdeo (2002) which is not very different from census 2023.

Unfortunately, Sectarian violence has taken on new and dangerous forms in recent times. Barelvis were considered to be the soft and moderate group (Modha et al., 2020). They have now transformed into a major intolerant group in recent times especially after the hanging of Mumtaz Qadri and the emergence of the new right-wing extremist religious political party Tehreek e Labaik Pakistan which is a visibly violent and extremist Barelvi group (Khan & Uzzaman, 2020).

The media's role in spreading sectarian hate and calling for minorities' persecution has been massively negative in Pakistan. A famous anchor of the religious program aired on 30<sup>th</sup> September, which called for the killing of Ahmadis in the name of Islam and within 48 hours two Ahmadis were shot dead after that program.

## **Theoretical Framework**

The theoretical foundations and framework for this study are based on the Cultivation Theory.

### ***The Cultivation Theory***

Cultivation Theory, also known as cultivation hypothesis or cultivation analysis was first proposed by George Gerbner in 1976. The theory is thoroughly effects-centric and proposes that TV viewing has long-term effects on the thinking patterns, ideas, and perceptions of its viewers which can be small, gradual, indirect but significant and cumulative (Morgan et al., 2014) stated that cultivation is a method of assessing the impact of TV on our beliefs and behaviors.

### ***Social Media and Cultivation***

Although cultivation theory was initially proposed for TV effects yet there have been numerous studies that prove the existence of cultivation effects on new media including social media. For Facebook, a similar synthetic world appears as TV and it is therefore quite logical to find a similar cultivation effect on Facebook as well. Whatever is posted on social media generates public debate and forms public opinion which makes it logical to fall into the cultivation analysis domain (Nevzat, 2018)

As TV, all social media sites are storytelling platforms just like TV. So even in the age of YouTube, Facebook or Instagram cultivation by Gerbner will persist as long as the storytelling genres are there (Morgan et al., [2014](#)).

Although being published 6 decades ago, the Cultivation theory is still among the most cited and used theoretical frameworks in the world. There have been more than 1500 studies citing cultivation theory after the year 2000 which was predominantly the era of new media. This shows the enormous ability of cultivation theory to adapt to the changing media landscape (Mosharafa & Eman, [2015](#)).

Several findings have been supportive of the fact that social media, specifically Facebook support the cultivating effects on its users globally in terms of varying variables. (Tsay-Vogel et al., [2018](#)).

## **Research Methodology**

### **Research Design**

A comprehensive quantitative research design has been used to test the research hypotheses at hand.

### **Sample Size**

Survey data has been collected from a nationwide purposively selected sample of 1250 Facebook users from the provincial capitals of Punjab, Sindh, KPK, Baluchistan and Federal Capital of Islamabad.

### **Sampling Technique and Frame**

To ensure the maximum generalizability and proper representation of the whole population a systematic sampling technique was used to collect data. The data was gathered from five (05) major public sector universities and their affiliated schools and colleges where every 2<sup>nd</sup> student was selected in the sample from schools and colleges and every 3<sup>rd</sup> student were opted from the selected universities. The institutions were chosen on the criterion based on the academic assumptions of maximum diversity and representation of the whole Pakistani population. The sample also provided sufficient diversity of level of education and financial status which are important variables of the current study.

## Data Collection Method

The semi-structured survey method was used to collect the data. This method helped to comprehensively answer the quantitative aspects of the study and to justify the findings with empirical data. A well-published valid questionnaire tool was redesigned with certain modifications to gauge the increasing religious extremism due to the usage of social media.

## Data Collection Tool

In order to measure the meaningful Facebook usage by the respondents, the Facebook intensity scale by Nicole. B Ellison was used (Ellison et al., 2011). Ellison's Facebook intensity scale is the most cited tool to gauge the meaningful usage of Facebook by its respondents.

Similarly, to measure the level of religious extremism, a comprehensive tool inspired by the tool of religious fundamentalism by Altemeyer and Hunsberger (2004), with certain modifications and updates as per the Pakistani socio- religious landscape was used.

## Results

### Descriptive Data

**Table 1**

*Demographic Profile of Survey Respondents*

Sample Characteristics	Frequency ( $n = 1062$ )	Percentage (%)
Gender		
Male	533	50.2
Female	529	49.8
Age		
15-20	707	66.6
21-26	265	25.0
27-32	70	6.6
Above 32	20	1.9
Religion		
Muslim	1062	100
School of Thought (Firqa)		
Deobandi	65	6.1
Barelvi	125	11.8
Ahl e Hadith	135	12.7

Sample Characteristics	Frequency ( <i>n</i> = 1062)	Percentage (%)
Ahl e Tashi	100	9.4
Other	175	16.5
None (No Firqa)	462	43.5
Where do you Belong to		
Punjab	212	20.0
Sindh	212	20.0
KPK	212	20.0
Baluchistan	213	20.1
Islamabad	213	20.1
Institute Level		
School	252	23.7
College	255	24.0
University	555	52.3
Level of Education		
Matric	252	23.7
Intermediate	255	24.0
Graduation (BS)	440	41.4
MPhil	65	6.1
PhD	50	4.7
Family Income		
Less than 2500	300	28.2
26000-40000	190	17.9
41000-70000	165	15.5
Above 100000	407	38.3
Have you ever faced discrimination, hate speech or violence in your life based on your religious beliefs?		
Yes	450	42.4
No	612	57.6
Number of hours you spend on Facebook daily		
Less than 1 Hour	630	59.3
1 Hour	237	22.3
2 Hours	140	13.2
3 Hours	55	5.2
Number of hours you daily spend on Facebook pages of religious parties / personalities		
Less than 1 hour	972	91.5
1 Hour	65	6.1

Sample Characteristics	Frequency ( $n = 1062$ )	Percentage (%)
2 Hour	25	2.4
Prior Religious Affiliation		
Yes	714	67.2
No	348	32.8

## Measurement Model

The evaluation of the measurement model is used to assess the quality of the study's constructs. The factor loadings are evaluated first, and then construct reliability and construct validity are established.

## Reliability and Validity of the Tool

### *Reliability*

Reliability means the accuracy of the measurement scores of your tool and how accurately they can be reproduced with repeated measurements (Dillon et al., [1994](#)).

### *Indicator Reliability*

To determine the measurement model's indicator reliability, the loadings of the items are examined. When the loading estimates for each item are higher than 0.5 to 0.7, a measurement model has a satisfactory indicator reliability (Hair et al., [2021](#)).

The Table 2 shows that all of the items in this measurement model had loadings generally greater than 0.5 as a result, the indicator reliability of this study is satisfactory.

### *Factor Loading*

The extent to which each of the items in the correlation matrix correlates with the given principal component is the term used to describe factor loading. Higher the absolute values indicate a higher correlation of the item with the underlying factor (Pett et al., [2003](#)). Factor loadings can range from -1.0 to +1.0. None of the items in this study are in the range of less than recommended factor loading value of .50, and no items have been removed. The factor loading results have been presented below in the Table 2.

**Table 2**

*Factor Loadings for the Facebook Usage and Religious Extremism Questionnaire*

Item	Component 1 Facebook Usage	Component 2 Hate Speech	Component 3 Sectarianism	Component 4 Radicalization
1 FBU13	.793			
2 FBU11	.789			
3 FBU10	.798			
4 FBU9	.689			
5 FBU8	.693			
6 FBU7	.821			
7 FBU6	.708			
8 FBU5	.664			
9 FBU3	.628			
10 FBU2	.617			
11 HS1		.745		
12 HS2		.688		
13 HS4		.708		
14 HS5		.710		
15 HS7		.671		
16 HS8		.741		
17 ST1			.927	
18 ST2			.940	
19 ST3			.594	
20 ST6			.512	
21 ST7			.452	
			.927	
22 RD12				.706
23 RD11				.764
24 RD10				.748
25 RD9				.873
26 RD8				.864
27 RD7				.785
28 RD6				.628
29 RD5				.521
30 RD4				.448

**Note.** FBU = Facebook Usage, HS = Hate Speech, ST = Sectarianism, RD = Radicalization



The reliability test showed that these measurements demonstrated adequate levels of internal consistent reliability with alpha values well above the suggested cut-off of .70

### ***Construct Validity***

In statistical Analysis, Construct Validity is established is established when both convergent and discriminant validities are formed.

### ***Convergent Validity***

Convergent validity is the degree to which different approaches for measuring the same idea are in agreement. The idea is that if two or more measures of the same thing are valid measures of the concept, they should very significantly overly (Bagozzi et al., [1991](#)). If the AVE (Average Variance Extracted) value is greater than or equal to the recommended value of .50, convergent validity is established. This signifies that items are converging to measure the underlying constructs significantly (Fornell & Larcker, [1981](#)). The Table below shows that average variance scores of all the constructs in this study were greater than the recommended value of .50. Hence convergent validity was achieved in this study. Table 3 shows AVE variance of each of the constructs.

**Table 3**

*Construct Convergent Validity*

	Average Variance Extracted
FB Usage	0.524
Hate Speech	0.506
Sectarianism	0.513
Radicalization	0.515

### **Hypotheses Verification**

H<sub>1</sub>. Facebook usage is positively related to the higher level of sectarianism.

To test the H<sub>1</sub>, Simple Linear Regression was computed. The hypothesis tests if Facebook Usage, carries as significant impact on Sectarianism. The

dependent variable that is Sectarianism was regressed on the predicting variable Facebook Usage to test the hypothesis H<sub>1</sub>.

Facebook Usage significantly predicted sectarianism among Facebook users,  $F = 27.977$ ,  $p < 0.001$ , which indicates that the Facebook Usage can play a significant role in instilling Sectarianism ( $\beta = .160$ ,  $p < .001$ ). These results clearly direct the positive affect of the Facebook Usage on Sectarianism. Moreover, the  $R^2 = .026$  depicts that the model explains 26 % of the variance in sectarianism is due to Facebook usage.

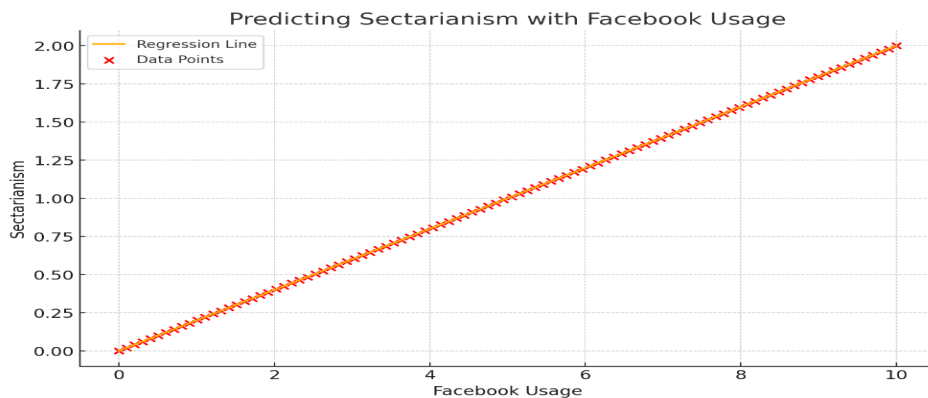
Table 4 shows the summary of the findings

**Table 4**  
*Predicting the Sectarianism with Facebook Usage*

Variable	<i>B</i>	$\beta$	<i>SE</i>	<i>p</i>
(Constant)	-2.368E-15		.030	
FB Usage	.200	.160	.038	.001
$R^2$	.026			

*Note.*  $N = 1062$

**Figure 2**  
*Linear Regression Analysis of Facebook Usage and Sectarianism*



The graph represents the linear regression model for predicting sectarianism with Facebook Usage. The red points represent the data points, and the orange line represents the regression line based on the slope and intercept provided in the table.

H<sub>2</sub>. Facebook usage is positively related to the higher level of hate speech.

To test the H<sub>2</sub>, Simple Linear Regression was computed. The hypothesis tests if Facebook Usage, carries as significant impact on Hate Speech of Facebook users. The dependent variable Hate Speech was regressed on the predicting variable that is Facebook Usage to test the hypothesis H<sub>2</sub>.

Facebook Usage significantly predicted Hate Speech,  $F = 718.243$ ,  $p < 0.000$ , which indicates that the Facebook Usage can play a significant role in instilling Religious Extremism ( $\beta = .636$ ,  $p < .000$ ). These results clearly direct the positive affect of the Facebook Usage on Hate Speech. Moreover, the  $R^2 = .404$  depicts that the model explains 40 % of the variance in Hate Speech is due to Facebook usage.

Table 5 shows the summary of the findings.

**Table 5**

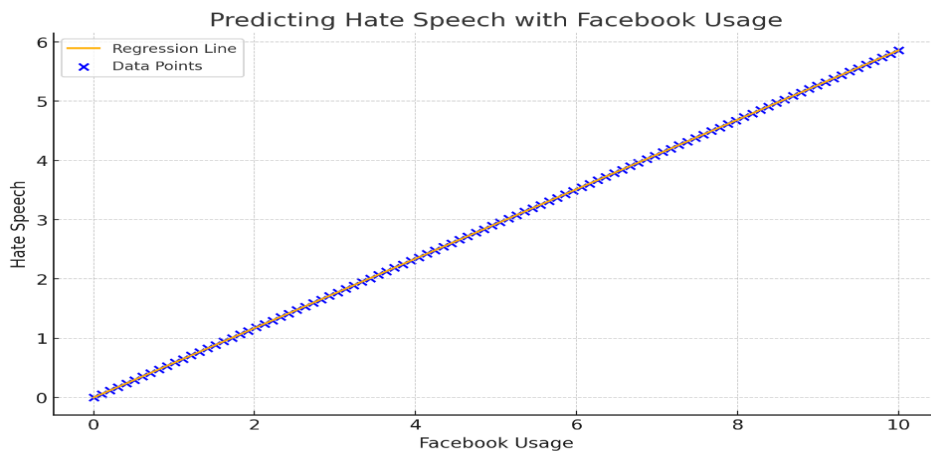
*Predicting the Hate Speech with Facebook Usage*

Variable	<i>B</i>	$\beta$	<i>SE</i>	<i>p</i>
(Constant)	1.805E-16		.018	
FB Usage	.586	.636	.022	.000
$R^2$	.404			

*Note.*  $N = 1062$

**Figure3**

*Linear Regression Analysis of Facebook Usage and Hate Speech*



The graph represents the linear regression model for predicting hate speech with Facebook Usage. The blue points represent the data points, and

the orange line represents the regression line based on the slope and intercept provided in the table.

H3. Facebook usage is positively related to the higher level of radicalization.

To test the H3, Simple Linear Regression was computed. The hypothesis tests if Facebook Usage, carries as significant impact on radicalization. The dependent variable that is radicalization was regressed on the predicting variable Facebook Usage to test the hypothesis H3.

Facebook Usage significantly predicted radicalization among Facebook users,  $F = 296.104$ ,  $p < 0.001$ , which indicates that the Facebook Usage can play a significant role in instilling radicalization ( $\beta = .467$ ,  $p < .001$ ). These results clearly direct the positive affect of the Facebook Usage on radicalization. Moreover, the  $R^2 = .218$  depicts that the model explains 21 % of the variance in radicalization due to Facebook usage.

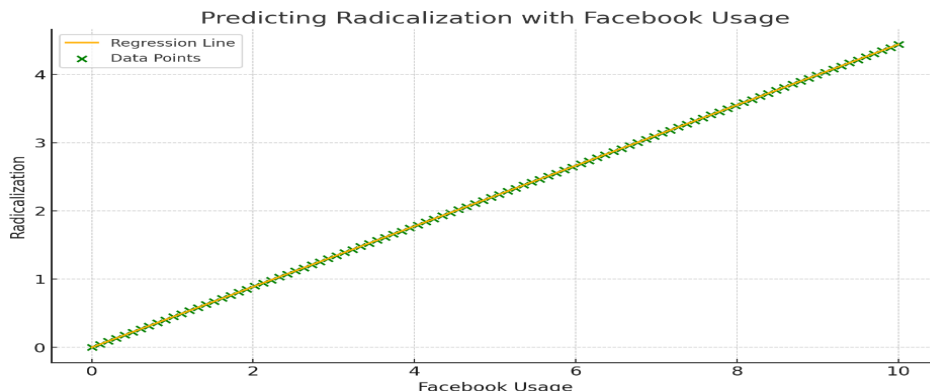
Table 6 shows the summary of the findings.

**Table 6**  
*Predicting the Radicalization with Facebook Usage*

Variable	<i>B</i>	$\beta$	<i>SE</i>	<i>p</i>
(Constant)	-1.056E-16		.021	
FB Usage	.444	.467	.026	<.001
$R^2$	.218			

*Note.*  $N = 1062$

**Figure 4**  
*Linear Regression Analysis of Facebook Usage and Radicalization*



The graph represents the linear regression model for predicting radicalization with Facebook Usage. The green points represent the data points, and the orange line represents the regression line based on the slope and intercept provided in the table.

## Discussion

The first hypothesis of this study deals with the effects of social media usage on the overall scores of religious extremism among its users across Pakistan. Religious extremism or extreme religious ideas with no tolerance for any opposing ideas that usually lead to radicalized incidents can be expressed in many ways as clear from the literature (Dwiningrum, [2023](#)). For this study, the construct of religious extremism has been built with three major concepts that is hate speech, radicalization, and sectarianism. The investigation supports the H<sub>1</sub> as the findings in shown in Table 4 proves that Facebook usage is positively related to the higher levels of religious extremism among its users in Pakistan ( $\beta = .520, p < .001$ ). Moreover, the  $R^2 = .270$  clearly explains a 27 % variance in religious extremism due to Facebook usage in Pakistan which is a significant value.

The findings strengthen the pre-established idea of higher levels of social media usage on behavioral change in its audience (Mahoney & Tang, [2024](#)). The regular and higher levels of Facebook usage do have a significant impact on the mindset and thought process of the users who are exposed to it for longer periods (Omar & Casero-Ripolles, [2023](#)). The mediated ideas constructed by social media can play an important role in shaping, reshaping, and strengthening the socio-psychological ideas among its users (Feng & Luo, [2023](#)).

The results of H<sub>1</sub> confirm the significant effects of social media usage on religiously extreme ideas among the users (Ghafar & Rashid, [2024](#)). The findings highlight that excessive usage of social media and exposure to a certain type of religious agenda and content can lead to an amplified level of religious extremism among social media users (Pauwels et al., [2018](#)). The findings also confirmed that the higher levels of social media usage of religious content may lead to violent and extremist ideas in the minds of its users (Khan et al., [2023](#)).

Several authors have confirmed that social media's exposure to religiously violent or igniting content can lead to active acts of violence or radicalization (Akers & Silverman, [2004](#)).

These findings also confirmed the theoretical foundations of cultivation theory that exposure to certain content for an extended period of time may lead to believing the mediated realities presented there (Hermann et al., [2023](#)).

The current research highlighted a complex and much more sophisticated relationship dynamics between social media usage and its effects on human behavior, in this case, the levels of religious extremism in the presence of various moderating and mediating variables as predicted by the cultivation theory are explored (Tylka et al., [2023](#)). The findings suggested that there is a strong causal relationship between exposure to extremist elements and religious aggression (Akers & Silverman, [2004](#)).

Youngsters spending excessive amounts of time on social media are more prone to its effects. The sociopolitical behaviors of youth and their actions are mostly shaped by their responses to social media's content and popular views presented on it (Siddiqa-Agha, [2010](#)). This mediated effect may lead to the committing of an actual act of religious extremism as a strong causal relationship is found between such exposure and the actual commitment of the offense (Akers & Silverman, [2004](#)). Therefore, the results confirmed this relationship as explained in cultivation theory as well as in the social cognitive model (Bandura, [1990](#)).

One of the most significant ideas to understand is the social media's feature of anonymity and the vastness of this domain which makes this plague of hate speech even more dangerous (Lapidot-Lefler & Barak, [2012](#)). The findings of the study also strengthen the idea that a majority or significant part of the majority of Facebook users have been exposed to some sort of hate speech regularly, focused mainly on their ethnic, physical, or religious orientation and this phenomenon is even more prevalent in the younger generation (Winiewski et al., [2017](#)).

## Conclusion

The study explores the correlation between Facebook usage and its ability to cultivate religious extremism among its users affecting them in real life. It hypothesizes that increased interaction on Facebook can amplify extremist views due to its unique communication dynamics and algorithms.

The study employs a quantitative approach, while combining quantitative data analysis with structural equation modeling to test the given

hypotheses. The findings show a significant and positive relationship between Facebook usage and religious extremism among Facebook users.

The study concludes that Facebook usage and social dynamics such as financial status and real life extremism, can inadvertently facilitate the expression and spread of religious extremism among its users. The study calls for a multi-faceted approach involving policy changes, improved content moderation, Better education system, mitigating financial stress and enhancing user education to address this issue effectively.

### **Recommendations**

In light of the findings of the study, following recommendations can be made.

1. The findings suggest the need for comprehensive regulations on social media platforms to mitigate the spread of extremist content. Platforms should enhance their content moderation policies and employ advanced algorithms to detect and limit the reach of extremist posts.
2. Promoting counter-narratives and diverse perspectives within these online communities can help reduce polarization.
3. Encouraging critical thinking and media literacy among users can also combat confirmation bias.
4. Social media is a reflection of society. People get highly affected by the real-life incidents and then translate that anger and frustration into virtual and online extremist ideas. Society in general must be transformed into a more cohesive and less extremist environment.
5. Strict regulations and checks must be employed to counter echo chambers and mainstreaming groups formed to spread religious violence online.
6. Hate speech, sectarianism, and radicalization must be combated on societal level in the country.
7. Religious groups and schools of thought must be regulated and under strict observation and the impact of excessive religious affiliation with certain groups and its transformation of it into religious hate among its users must also be monitored.

## Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

## Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

## References

- Abbas, H. (2021). Extremism and terrorism trends in Pakistan: Changing dynamics and New challenges. *CTC Sentinel*, 14(2), 44–50.
- Abbasi, H. K. (2018, September 21). Toxic trolls of Pakistan. *Friday Times*. <https://thefridaytimes.com/21-Sep-2018/toxic-trolls-of-pakistan>
- Akers, R. L., & Silverman, A. (2004). Toward a social learning model of violence and terrorism. In M. A. Zahn, H. H. Brownstein, & S. L. Jackson (Eds.), *Violence: From theory to research* (pp. 19–30). Matthew Bender/LexisNexis.
- Al-Shamsi, M. (2019). Religious extremism in Arab societies: The leading factors, consequences, and confrontation, analytical study. *Al-Adab Journal*, 1(130), 609–634.
- Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *The International Journal for the Psychology of Religion*, 2(2), 113–133. [https://doi.org/10.1207/s15327582\\_ijpr0202\\_5](https://doi.org/10.1207/s15327582_ijpr0202_5)
- Amoore, L., & Goede, M. D. (2008). *Risk and the war on terror*. Routledge.
- Arshad, M. (2023). Increasing extremism and religious intolerance in Pakistan. *European Journal of Philosophy, Culture and Religion*, 7(1), 42–55. <https://doi.org/10.47672/ejpcr.1441>
- Azad, T. M., & Haider, M. W. (2021). The threat of post 9/11 sectarian violence to the national integration of Pakistan: A critical appraisal. *The Islamic Shariah & Law*, 1(3), 23–38
- Badjatiya, P., Gupta, S., Gupta, M., & Varma, V. (2017, April 3–7). *Deep learning for hate speech detection in tweets* [Paper Presentation]. Proceedings of the 26th international conference on World Wide Web companion. Perth, Australia.



- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36(3), 421–458.
- Bandura, A. (1990). Mechanisms of moral disengagement in terrorism. In W. Reich (Ed.), *Origins of terrorism: Psychologies, ideologies, states of mind* (pp. 161–191). Cambridge University Press.
- Banks, J. (2010). Regulating hate speech online. *International Review of Law, Computers & Technology*, 24(3), 233–239. <https://doi.org/10.1080/13600869.2010.522323>
- Baruch, B., Ling, T., Warnes, R., & Hofman, J. (2018). Evaluation in an emerging field: Developing a measurement framework for the field of counter-violent-extremism. *Evaluation*, 24(4), 475–495. <https://doi.org/10.1177/1356389018803218>
- Brubaker, R., & Cooper, F. (2000). Beyond “identity.” *Theory and Society*, 29(1), 1–47.
- Buyse, A. (2014). Words of violence: “Fear speech,” or how violent conflict escalation relates to the freedom of expression. *Human Rights Quarterly*, 36(4), 779–797.
- Chahudhry, M. S. (1993). *Human rights in Islam*. H. Y. Printers.
- Charitidis, P., Doropoulos, S., Vologiannidis, S., Papastergiou, I., & Karakeva, S. (2020). Towards countering hate speech against journalists on social media. *Online Social Networks and Media*, 17, Article e100071. <https://doi.org/10.1016/j.osnem.2020.100071>
- Cohen, J., & Weimann, G. (2000). Cultivation revisited: Some genres have some effects on some viewers. *Communication Reports*, 13(2), 99–114. <https://doi.org/10.1080/08934210009367728>
- Costello, M., Barrett-Fox, R., Bernatzky, C., Hawdon, J., & Mendes, K. (2020). Predictors of viewing online extremism among America’s youth. *Youth & Society*, 52(5), 710–727. <https://doi.org/10.1177/0044118X18768115>
- Cotik, V., Debandi, N., Luque, F. M., Miguel, P., Moro, A., Pérez, J. M., Serrati, P., Zajac, J., & Zayat, D. (2020, July 9–10). *A study of Hate Speech in Social Media during the COVID-19 outbreak* [Paper presentation]. NLP COVID-19 Workshop, Washington, United States.

- Crettiez, X. (2011). High risk activism: An essay on the process of violent radicalization (first part). *South Pole*, 34(1), 45–60.
- Del Vigna, F., Cimino, A., Dell'Orletta, F., & Petrocchi, M. (2017). Hate me, hate me not: Hate speech detection on Facebook [Paper presentation]. Proceedings of the First Italian Conference on Cyber security (ITASEC17), Venice, Italy.
- Dillon, W. R., Madden, T. J., & Firtle, N. H. (1994). *Marketing research in a marketing environment*. Irwin Publishing Company
- Denoeux, G., & Carter, L. (2009). *Guide to the drivers of violent extremism and terrorism*. USAID. <https://www.cvereferecneguide.org/sites/default/files/resources/USAID%20Guide%20to%20the%20Drivers%20of%20Violent%20Extremism%20%281%29.pdf>
- Durrani, H & Naseer, M. (2021). Hate speech and culture of trolling on social media. *Hate Speech and Culture of Trolling on Social Media*. Advance online publication. <https://doi.org/10.13140/RG.2.2.16077.56806>
- Dwiningrum, N. R. (2023). Religious radicalism behavior: The role of pro-violence and dark personality. *International Journal of Multicultural and Multireligious Understanding*, 10(12), 133–143. <https://doi.org/10.18415/ijmmu.v10i12.5181>
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society*, 13(6), 873–892. <https://doi.org/10.1177/1461444810385389>
- Feng, H., & Luo, X. (2023). Boy's love drama exposure and attitudes toward same-sex relationships: Applying a moderated mediation model in the Chinese context. *Chinese Journal of Communication*, 16(2), 168–185. <https://doi.org/10.1080/17544750.2022.2153890>
- Fernandez, A., & Farkas, J. (2021). Racism, hate speech, and social media: A systematic review and critique. *Television & New Media*, 22(2), 205–224. <https://doi.org/10.1177/1527476420982230>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>

- Foxman, A. H., & Wolf, C. (2013). *Viral hate: Containing its spread on the Internet*. St. Martin's Press
- Ghafar, M. U., Khan, M. A., & Rashid, A. (2024). Role of social media applications in creating intolerance among Pakistani youth. *Online Media and Society*, 5(1), 12–24.
- Global Terrorism Index, (2023). *Global terrorism index 2023, Top 50 countries*. Statista. <https://www.statista.com/statistics/271514/global-terrorism-index/>
- Guiora, A. N. (2013). *Tolerating intolerance: The price of protecting extremism*. Oxford University Press.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial Least Squares Structural Equation Modeling (PLS-SEM) using R. *Classroom companion: Business*. Springer. <https://doi.org/10.1007/978-3-030-80519-7>
- Hale, W. C. (2012). Extremism on the World Wide Web: A research review. *Criminal Justice Studies: A Critical Journal of Crime, Law & Society*, 25(4), 343–356. <https://doi.org/10.1080/1478601X.2012.704723>
- Hamidu, A. (2019). Hate speech, twitter and 2019 Election: Analysis of tweeting habits of selected politicians in Kaduna state. *Communication & Media Studies*. Advance online publication. <https://doi.org/10.31124/advance.7325756.v1>
- Hasangani, S. (2022). Religious identification on Facebook visuals and (online) out-group intolerance: Experimenting the Srilankan case. *Journal of Asian and African Studies*, 57(2), 247–268. <https://doi.org/10.1177/00219096211008466>
- Hassan, T., Alam, M. M., Wahab, A., & Hawlader, M. D. (2020). Prevalence and associated factors of internet addiction among young adults in Bangladesh. *Journal of the Egyptian Public Health Association*, 95, 1–8. <https://doi.org/10.1186/s42506-019-0032-7>
- Hermann, E., Morgan, M., & Shanahan, J. (2023). Cultivation and social media: A meta-analysis. *New Media & Society*, 25(9), 2492–2511. <https://doi.org/10.1177/14614448231180257>
- Ittefaq, M., Seo, H., Abwao, M., & Baines, A. (2022). Social media use for health, cultural characteristics, and demographics: A survey of Pakistani

- millennials. *Digital Health*, 8, 1–12.  
<https://doi.org/10.1177/20552076221089454>
- Kalin, M., & Sidique N. (2014). *Religious authority and the promotion of sectarian tolerance in Pakistan*. United States Institute of Peace.  
[https://www.usip.org/sites/default/files/SR354\\_Religious-Authority-and-the-Promotion-of-Sectarian-Tolerance-in-Pakistan.pdf](https://www.usip.org/sites/default/files/SR354_Religious-Authority-and-the-Promotion-of-Sectarian-Tolerance-in-Pakistan.pdf)
- Kemp, S. (2024). *Digital 2024: Pakistan*. Datareportal.  
<https://datareportal.com/reports/digital-2024-pakistan>
- Khan, M. S., & Uzzaman, M. S. (2020). Sectarianism and Social Identity in Pakistan. *Pakistan Review of Social Sciences*, 1(1), 9–25.
- Khan, M., Mahmood, T., & Rasool, S. (2023). Dynamics of violence in Pakistan: A mixed method study. *Global Educational Studies Review*, 8(1), 287–296. [https://doi.org/10.31703/gesr.2023\(VIII-I\).25](https://doi.org/10.31703/gesr.2023(VIII-I).25)
- Koehler, D. (2014). The radical online: Individual radicalization processes and the role of the Internet. *Journal for Deradicalization*, 15(1), 116–134.
- Kruglanski, A., Jasko, K., Webber, D., Chernikova, M., & Molinario, E. (2018). The making of violent extremists. *Review of General Psychology*, 22(1), 107–120. <https://doi.org/10.1037/gpr0000144>
- Kursuncu, U., Gaur, M., Castillo, C., Alambo, A., Thirunarayan, K., Shalin, V., Sheth, A. (2019). Modeling Islamist extremist communications on social media using contextual dimensions. *Proceedings of the ACM on Human-Computer Interaction*, 3, Article e151  
<https://doi.org/10.1145/3359253>
- Lapidot-Lefler, N., & Barak, A. (2012). Effects of anonymity, invisibility, and lack of eye-contact on toxic online disinhibition. *Computers in Human Behavior*, 28(2), 434–443.  
<https://doi.org/10.1016/j.chb.2011.10.014>
- Lee, E., & Leets, L. (2002). Persuasive storytelling by hate groups online: Examining its effects on adolescents. *American Behavioral Scientist*, 45(6), 927–957.  
<https://doi.org/10.1177/0002764202045006003>

- Leets, L. (2002). Experiencing hate speech: Perceptions and responses to anti-Semitism and antigay speech. *Journal of Social Issues*, 58(2), 341–361 <https://doi.org/10.1111/1540-4560.00264>
- Lietsala, K., & Sirkkunen, E. (2008). *Social media. Introduction to the tools and processes of participatory economy*. University of Tampere.
- Liht, J., Conway, L. G., Savage, S., White, W., & O'Neill, K. A. (2011). Religious fundamentalism: An empirically derived construct and measurement scale. *Archive for the Psychology of Religion*, 33(3), 299–323. <https://doi.org/10.1163/157361211X594159>
- Lovink, G. (2013). *Hermes on the Hudson: Notes on media theory after Snowden*. E-Flux. <https://www.e-flux.com/journal/54/59854/hermes-on-the-hudson-notes-on-media-theory-after-snowden/>
- Mahoney, L. M., & Tang, T. (2024). *Strategic social media: From marketing to social change*. John Wiley & Sons.
- Malik, M. Z. (2020). Sectarianism and difference of opinion: An Islamic perspective. *Ma'Arif-e-Islami*, 19(1), 59–69.
- Manchanda, R. (2009). *Living on the Margin*. European Commission.
- Memon, S., Mahar, S., Dhomeja, L. D., & Pirzado, F. (2015, June 8–9). *Prospects and challenges for social media in Pakistan* [Paper presentation]. International Conference on Cyber Situational Awareness, Data Analytics and Assessment (CyberSA). London, UK
- Modha, S., Majumder, P., Mandl, T., & Mandalia, C. (2020). Detecting and visualizing hate speech in social media: A cyber Watchdog for surveillance. *Expert Systems with Applications*, 161, Article e113725. <https://doi.org/10.1016/j.eswa.2020.113725>
- Morozov, E. (2012). *The net delusion: The dark side of Internet freedom*. Public Affairs.
- Mosharafa, E. (2015). All you need to know about: The cultivation theory. *Global Journal of Human-Social Science: Arts & Humanities*, 15(8), 22–38
- Mueller, R. S. (2010, September 22). *Statement before the Senate Committee in Homeland Security and Governmental Affairs*. The Federal Bureau of Investigation. <http://www.fbi.gov/news/testimony/nine-years-after-9-11-confronting-the-terrorist-threat-to-the-u.s>

- Naz, S., & Shafique, O. (2021). Hate speeches on Twitter and Facebook in South Asia: A case study of Malala Yousufzai. *Pakistan Journal of International Affairs*, 4(1), 328–351. <https://doi.org/10.52337/pjia.v4i1.124>
- Neumann, P. R. (2013). Options and strategies for countering online radicalization in the United States. *Studies in Conflict & Terrorism*, 36(6), 431–459. <https://doi.org/10.1080/1057610X.2013.784568>
- Nevzat, R. (2018, October 9–11). *Reviving cultivation theory for social media* [Paper presentation]. The Asian Conference on Media, Communication & Film Conference. Tokyo, Japan.
- Omar, R. G. A. S., & Casero-Ripollés, A. (2023). Impact of influencers' Facebook pages in cultivating fear and terror among youths during the COVID-19 pandemic. *Online Journal of Communication and Media Technologies*, 13(2), Article e202314. <https://doi.org/10.30935/ojcm/13005>
- Pauwels, L. J., Hardyns, W., Scheithauer, H., Leuschner, V., Böckler, N., Akhgar, B., & Nitsch, H. (2018). Endorsement for extremism, exposure to extremism via social media and self-reported political/religious aggression. *International Journal of Developmental Science*, 12(1-2), 51–69. <https://doi.org/10.3233/DEV-170229>
- Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. Sage Publisher.
- Pohjonen, M., & Udupa, S. (2017). Extreme speech online: An anthropological critique of hate speech debates. *International Journal of Communication*, 11, 1173–1191
- Population Census. (2023). *Population and housing census 2023 digital census*. Pakistan Bureau of Statistics. <https://www.pbs.gov.pk/content/announcement-results-7th-population-and-housing-census-2023-digital-census>
- Saleem, H. M., Dillon, K. P., Benesch, S., & Ruths, D. (2017). A web of hate: Tackling hateful speech in online social spaces. *ArXiv*, Article e1709.10159. <https://doi.org/10.48550/arXiv.1709.10159>

- Saltman, E. M., & Russell, J. (2014). *White Paper—The role of prevent in countering online extremism*. Quilliam Publication.
- Siddiqa-Agha, A. (2010). *Red hot chili peppers Islam: Is the youth in elite universities in Pakistan Radical?* Heinrich Boll Stiftung.
- Silber, M. D., & Bhatt, A. (2007). *Radicalization in the west: The homegrown threat*. NYPD Intelligence Division.
- Silva, L., Mondal, M., Correa, D., Benevenuto, F., & Weber, I. (2016, May 17–20). *Analyzing the targets of hate in online social media* [Paper presentation]. International AAAI Conference on Web and Social Media. Cologne, Germany
- Simon, B., Reichert, F., & Grabow, O. (2013). When dual identity becomes a liability: Identity and political radicalism among migrants. *Psychological Science*, 24(3), 251–257. <https://doi.org/10.1177/0956797612450889>
- Sookhdeo, P. (2002). *A people betrayed: The impact of Islamization on the Christian community in Pakistan*. Isaac Books.
- Soral, W., Liu, J., & Bilewicz, M. (2020). Media of contempt: Social media consumption predicts normative acceptance of anti-Muslim hate speech and islamoprejudice. *International Journal of Conflict and Violence*, 14(1), 1–13. <https://doi.org/10.4119/ijcv-3774>
- Tsay-Vogel, M., Shanahan, J., & Signorielli, N. (2018). Social media cultivating perceptions of privacy: A 5-year analysis of privacy attitudes and self-disclosure behaviors among Facebook users. *New Media & Society*, 20(1), 141–161. <https://doi.org/10.1177/1461444816660731>
- Tylka, T. L., Rodgers, R. F., Calogero, R. M., Thompson, J. K., & Bandura, J. A. (2023). Integrating social media variables as predictors, mediators, and moderators within body image frameworks: Potential mechanisms of action to consider in future research. *Body Image*, 44, 197–221. <https://doi.org/10.1016/j.bodyim.2023.01.004>
- Tynes, B. (2006). Children, adolescents, and the culture of hate online. In N. Dowd, D. Singer & R. F. Wilson (Eds.), *Handbook of children, culture, and violence* (pp. 267–289). Sage Publisher

- United State Commission International Religious Freedom. (2024). *Highlights from USCIRF's 2024 annual report*. <https://www.uscirf.gov/publication/2024-annual-report>
- Wacks, Y., & Weinstein, A. M. (2021). Excessive smartphone use is associated with health problems in adolescents and young adults. *Frontiers in Psychiatry*, *12*, Article e669042. <https://doi.org/10.3389/fpsy.2021.669042>
- Waseem, Z., & Hovy, D. (2016). Hateful symbols or hateful people? Predictive features for hate speech detection on twitter [Paper presentation]. *Proceedings of the NAACL student research workshop* (pp. 88–93). San Diego, California
- Webber, D., Babush, M., Schori-Eyal, N., Vazeou-Nieuwenhuis, A., Hettiarachchi, M., Bélanger, J. J., Moyano, M., Trujillo, H. M., Gunaratna, R., Kruglanski, A. W., & Gelfand, M. J. (2018). The road to extremism: Field and experimental evidence that significance loss-induced need for closure fosters radicalization. *Journal of Personality and Social Psychology*, *114*(2), 270–285. <https://doi.org/10.1037/pspi0000111>
- Weimann, G. (2015). Terrorist migration to social media. *Georgetown Journal of International Affairs*, *16*(1), 180–187.
- Wibisono, S., Louis, W. R., & Jetten, J. (2019). A multidimensional analysis of religious extremism. *Frontiers in Psychology*, *10*, Article e2560 <https://doi.org/10.3389/fpsyg.2019.02560>
- Williamson, W. P. (2010). Book reviews: Religious fundamentalism: global, local and personal by Peter Herriot. *Journal for the Scientific Study of Religion*, *49*(3), 579–581. <https://doi.org/10.1111/j.1468-5906.2010.01530.8.x>
- Winiewski, M., Hansen, K., Bilewicz, M., Soral, W., Świdarska, A., & Bulska, D. (2017). *Contempt speech, hate speech. Report from research on verbal violence against minority groups*. Stefan Batory Foundation. [www.ngofund.org.pl/wp-content/uploads/2017/02/Contempt\\_Speech\\_Hate\\_Speech\\_Full\\_Report.pdf](http://www.ngofund.org.pl/wp-content/uploads/2017/02/Contempt_Speech_Hate_Speech_Full_Report.pdf)