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Issue ***12*** of ***Revue ITEC***, entitled **"*Inclusive Education and Innovative Technologies,"*** brings together a collection of scholarly contributions that explore emerging approaches, policies, practices, and innovative technologies that contribute to creating more inclusive, accessible, and learner-centred educational environments. At a time when educational systems are undergoing profound transformations, the intersection between inclusion and technological innovation has become increasingly significant.

Inclusive education extends beyond ensuring access to learning; it encompasses the creation of equitable educational environments that recognise learner diversity, reduce barriers to participation, and respond to different needs, abilities, and backgrounds. At the same time, the rapid development of digital and emerging technologies is creating new possibilities for enhancing teaching and learning, expanding access to educational resources, and responding to diverse learner needs.

The contributions in this issue address a range of topics, including inclusive education, special needs education, innovative pedagogies, teacher education and professional development, as well as the role of emerging technologies in expanding learning opportunities and addressing the diverse needs of learners. Collectively, the articles underscore the importance of combining pedagogical innovation with inclusive practices to promote equity, active participation, learner empowerment, and lifelong learning.

By bringing together perspectives from different disciplines and educational contexts, **Issue 12** seeks to contribute to current discussions on how innovation and technology can be harnessed to address contemporary educational challenges and foster more inclusive and learner-centred educational environments.

Inclusive Digital Learning in Practice: How Mohammed I University Students Respond to Online Hate Speech

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Abstract

Digital learning spaces have expanded opportunities for interaction in higher education. These same spaces also expose students to online hate speech that targets individuals or groups on the basis of race, culture, identity and social differences. This challenges the conditions needed to sustain inclusive and respectful learning environments. Thus, this study examines how Critical Digital Literacy (CLM) and inclusive attitudes toward diversity shape university students' responses to online hate speech in digital learning spheres. The study uses a mixed method design and prioritizes quantitative findings. There were 79 undergraduate students from the English Studies Department, Mohammed I University, completed a questionnaire that measured CML, inclusive attitudes toward diversity, and rejection of online hate speech. The quantitative data was analyzed in JASP and focuses on reliability, correlation, and mediation analyses. In the qualitative phase, where participants talked about experiences facing hate speech and their reactions, the data was analyzed through Braun and Clark's (2006) thematic analysis. Results showed that CML effectively predicted inclusive attitudes toward diversity and directly predicted rejection of online hate speech. Qualitative findings complemented these results and explain that students drew on both analytical recognition of group-based stereotyping and openness to difference when dealing and identifying hate speech. The findings suggest that students' rejection of online hate speech is shaped by both critical-analytical skills and inclusive attitudes, which operate as complementary but only partially overlapping pathways. The study contributes to research on inclusive digital learning by demonstrating the combined role of CLM and diversity related attitudes in supporting respectful and inclusive online learning interactions. The study also suggests the integration of critical media literacy and diversity-oriented pedagogy in higher education curricula and digital citizen initiatives.

Keywords: digital learning environments, inclusive education, online hate speech, higher education, critical media literacy

Review of Literature

The following review aims to shed light on three strands of scholarship that frame the present study, namely CML in digital learning environments, inclusive attitudes toward diversity, and online hate speech in digital contexts. These areas are selected for their relevance to students' engagement with digital academic spaces and their role in shaping how such spaces are interpreted and navigated. The discussion proceeds by situating each strand within its theoretical foundations while also drawing on empirical work that has examined these constructs in educational and digital settings. In doing so, the section does not merely review existing research but also establishes the conceptual grounding of the study and identifies the relationships among the variables under investigation.

CML in digital learning environments

Different definitions of media literacy have been proposed in the literature, and in most instances, it has been defined as an umbrella term that encompasses the study of mass media, popular culture, digital technologies, as well as issues concerning civic society and justice. Often, media literacy and media education have been used interchangeably, although David Buckingham, one of the leading theorists in children's media cultures, has offered clear distinction between the two concepts while pointing out how they are interconnected. Buckingham has defined media literacy as "the knowledge, skills and competencies that are required in order to use and interpret media" (2003, p. 36). Media education, according to him, "is the process of teaching and learning about the media, while media literacy is the outcome – the knowledge and skills learners acquire" (Buckingham, 2003, p. 4).

To the purpose of this study, we highlight, as many scholars have done, the term *critical* in media literacy to emphasize the individual's active and thoughtful engagement with media, in its broadest sense. Livingstone (2004) from the London School of Economics stresses the importance of evaluation in literacy. She explains that a person who uses the web without the ability to judge information may struggle to tell whether sources are outdated, biased, or misleading. Such a user may also find it difficult to make informed choices when faced with a large amount of information and online services (p. 5).

The goal of critical media literacy is to engage in media in ways that involve critically examining representations, systems, structures, ideologies, and power relationships that constitute and reproduce culture and society. It is an inquiry-based practice for analyzing and creating media that involves critically examining the relationships between power and knowledge. Critical media literacy is a dialogical project for social and environmental justice that includes Paulo Freire's (1970) concept of praxis, "reflection and action upon the world in order to transform it" (p. 36). This is a pedagogical project that involves examining representations of class, gender, racial, and sexual identities and other social identities, and it challenges representations in the media that promote oppression and discrimination. It also celebrates representations and aspects of media that are positive and beneficial while at the same time examining problems and negative consequences in the media, because media are always problematic. Critical media literacy is a transformational pedagogy for critical, caring, nurturing, and conscientious people.

Moreover, Albardía et al. (2025) argue that the integration of technology tools such as AI has, on the one hand, made it easier for individuals to access information and has offered other advantages such as collaborative learning. On the other hand, it has presented numerous challenges such as the problem of misinformation (Marta-Lazo, 2023) or fake news (Pérez Forteza & Izquierdo Cuellar, 2020), which have highlighted the need to ensure that both teachers and students receive critical training. In this regard, in the educational sphere, it is important to recognize that the ability of students to distinguish between true and false information is vital to their development as critical and responsible citizens (Marta-Lazo, 2023).

Another challenge that is presented in the use of advanced technologies in the classroom is the management of information overload that has been defined as an infodemia (Sánchez-Reina & González-Lara, 2022) or infoxication (a portmanteau of information and intoxication) (; Gómez Nieto, 2016). The latter term refers to the situation where society in general and students in particular are constantly subjected to information that may make it difficult to digest and understand its effects and to distinguish between information that is considered trustworthy and that which is considered untrustworthy. Therefore, educommunication or critical media literacy is crucial in this regard as it equips students with the tools, they need to filter information critically (González-Mohíno et al., 2023).

In this regard, some approaches to educommunication have been limited to digital literacy and have concentrated on the mere use of technology tools without delving into the critical analysis of information. However, beyond this, there is the need to adopt an approach that combines both media and information literacy and digital literacy in such a way that both aspects are included in a critical way to enable students to use technology and information contained within it in an effective and critical way in their learning processes (Mesquita-Romero et al., 2022).

Due to the predominant ecosystem of our time that is shaped by the convergence of information, media, and technology, Douglas Kellner and Jeff Share (2019) propose "a theoretical framework and practical applications for educators and teacher education programs to transform education by putting critical media literacy into action in classrooms with students from kindergarten to university" (p. 1). Their work builds on the tradition of critical pedagogy (CP) and aims to help learners question media messages rather than accept them as neutral. CP "is an approach to language teaching and learning which…is concerned with transforming relations of power which are oppressive and which lead to the oppression of people" (Aliakbari et al., 2011, p. 77). Kellner and Share argue that media education should not be limited to the acquisition of media literacy skills. They explain that "critical media literacy involves an understanding of ideology, power, and domination" (2007, p. 4). This indicates that learners should be encouraged to analyze the ways in which media texts portray the real world and the ways in which these portrayals may be biased. In the digital media, this is especially relevant since learners are bombarded by so much information.

Table 1

Critical Media Literacy Framework (Adapted from Kellner & Share, 2019)

Conceptual Understandings	Guiding Questions
Social Constructivism: All information is co-constructed by individuals and/or groups within social contexts.	Who are the people who made choices that helped create this text?
Languages / Semiotics: Each medium has its own language with specific grammar and semantics.	How was this text constructed and delivered or accessed?
Audience / Positionality: Individuals and groups understand media messages differently depending on context.	How could this text be understood differently? How does my identity influence my understanding of the text?
Politics of Representation: Media messages reflect bias and may support or challenge power structures and privilege.	What values, points of view, and ideologies are represented or missing from this text?
Production / Institutions: Media texts have purposes shaped by creators and institutional systems.	Why was this text created or shared?
Social and Environmental Justice: Media culture can reinforce or challenge ideas about people and social issues; it is not neutral.	Who does this text advantage or disadvantage?

This framework provides some insight into how students respond to harmful discourse online by promoting critical inquiry into how digital texts are constructed, what values they embody, and whose interests they serve. It also helps students look beyond the surface of what is being said in online discourse and become more aware of bias, stereotypes, and power relations embedded in what they read and encounter online. This helps students become more capable of identifying harmful discourse and dealing with it more thoughtfully and responsibly.

While foundational theoretical frameworks predominantly reflect Western socio-technological environments (eg, Buckingham, 2007; Kellner & Share, 2007; Livingstone, 2004), recent empirical literature emphasizes the necessity of contextualizing Critical Media Literacy (CML) within the specific institutional and socio-cultural dynamics of North Africa. In Morocco, higher education institutions are undergoing rapid digital transformation, driven by national strategic agendas such as the PACTE ESRI-2030 reform, which positions digital literacy as an

indispensable "catalyst for student success" and essential professional skill (El Messaoudi, 2024, p. 2). Nevertheless, scholars argue that media literacy integration in Morocco remains structurally fragmented; Chalfaouat and Essoufi (2023) note that despite growing academic and grassroots initiatives, the absence of a unified, cross-sectoral national policy leaves official regulatory promises and practical educational efforts looking discrepant, shambolic and limited in impact. This institutional vacuum forces Moroccan universities to bear the primary responsibility of fostering students' critical engagement with digital platforms without standardized national curricular guidelines.

This structural challenge is further compounded by the socio-digital realities facing Moroccan university students, who increasingly navigate online ecosystems characterized by algorithmic amplification, unvetted content, and online toxicity. Investigating this digital landscape among higher education students, Mrah (2022) established a direct empirical link between Moroccan undergraduates' digital media literacy skills and their ability to identify information disorder online and rigorously evaluate source credibility. In a regional context where social networking platforms serve as the primary arena for youth civic participation, academic exchange, and peer interaction, a lack of critical evaluative skills heightens student vulnerability to digital hostility and discriminatory rhetoric. consequently, grounding media literacy research within the Moroccan higher education context requires examining how students' localized critical competencies function as essential cognitive mechanisms to evaluate online content, challenge hateful rhetoric, and foster inclusive digital spaces.

Inclusive attitudes toward diversity

There is a consensus that education should be sensitive to diversity and promote inclusion (Enslin & Hedge, 2010), therefore the term of "inclusive attitudes" has emerged. Inclusive attitude can thus be seen as people's openness towards diversity, their respect for others, and their positive approach towards inclusive interaction (Busciantella-Ricci et al., 2022). In this research, inclusive attitudes can be understood in terms of the concept of universality-diversity orientation in accordance with the views of Marie L. Miville and Lisa E. Guzman, who described the concept of universality-diversity orientation as "an attitude of awareness and acceptance of both the similarities and differences that exist among people" (Miville et al., 1999, p. 292). Inclusive attitudes can thus be described in terms of the tendency of individuals to appreciate diversity and inclusiveness in society and in learning settings.

That is being said, we assume that those who hold stronger inclusive attitudes are generally more open to diversity and more sensitive to issues of inequality and discrimination. As a result, they are more likely to recognize exclusionary or harmful discourse and view it as unacceptable. For instance, Marolla-Gajardo and Lozano-Mas (2025) examined hate speech in teacher education using a correlational design. The findings show that students who value diversity and inclusion are more likely to support actions that prevent hate speech and promote respectful interaction. The study concludes that "hate speech cannot be addressed solely from the standpoint of individual harm; it must be understood as a structural phenomenon that jeopardises the educational project as a whole" (p. 15). Likewise, Lo Cricchio et al. (2023) found that tolerance toward diversity moderates the effects of exposure to online hate speech. Students with higher tolerance were less likely to engage in harmful behaviors, even when exposed to hate content. This suggests that inclusive attitudes can act as a protective factor against reproducing or accepting hate speech; therefore, orientation toward respect and inclusion may therefore be associated with lower tolerance for hate speech and a stronger tendency to reject such discourse in digital environments.

Online hate speech in digital learning environments

Online hate speech refers to the use of offensive, aggressive, or violent language directed at a specific group of people who share a common characteristic, such as gender, ethnicity, race, religion, beliefs, or political views (Watanabe, Bouazizi, & Ohtsuki, 2018, as cited in Castaño-Pulgarín et al., 2021). Online hate speech has been proven to influence interaction, a sense of belonging, and inclusion in online spaces in a negative manner. In their study, Saha et al. (2019) established that online hate speech in university communities was linked to higher stress and emotional distress among students. Such psychological impacts of online hate speech on students would deter their involvement in online discussions and lower their engagement in online learning spaces. In a similar manner, Marolla-Gajardo (2025) indicates how online hate speech is a barrier to inclusive education and how it makes people anxious and causes them to avoid interaction, leading to a lack of a sense of belonging. Saha et al. (2019) have found that in university settings, hate speech in online platforms impacts self-esteem levels and academic engagement. In that sense, it can be argued that students' response to hate speech should be conceptualized in terms of a pedagogical concern that impacts academic participation and inclusion. The discussion of online hate speech within the present study is based upon the notion of digital citizenship and the broader literature associated with cyberhate. In terms of defining the notion of digital citizenship, Ribble states that it is the norms of appropriate, responsible behavior with regard to technology use.

In the same vein, cyberhate research explores how discriminatory and hostile content is disseminated in online environments and how individuals perceive and act upon it. In this sense, Suler, J. (2004) proposes what she calls "the Online Disinhibition Effect". He describes how certain characteristics of online communication, such as anonymity and invisibility, can lead to a lack of self-restraint and an increase in extreme expression. As he states, "people say and do things in cyberspace that they wouldn't ordinarily say and do in the face-to-face world" (Suler, 2004, p. 321). Suler describes disinhibition as having two forms: benign disinhibition and toxic disinhibition. On this basis, and in accordance with the relevant cyberhate literature (Celuch et al., 2022; Obermaier et al., 2023; Wachs et al., 2023), this study focuses on the construct of rejection of hate speech online, which is defined by four dimensions: (1) disapproval of hateful discourse, (2) perceived harm of hate speech online, (3) rejection of its normalization in online environments, and (4) support for respectful and ethical communication. These dimensions of rejection of hate speech online can be viewed as a reaction to the conditions described by Suler.

Conceptual Framework

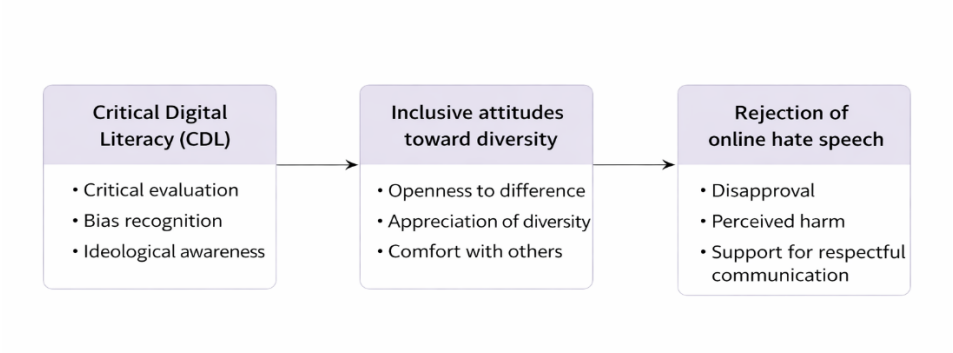
This research integrates the concept of CML, inclusive attitudes towards diversity, and students' responses towards online hate speech within a single a conceptual framework. CML is meant to help students develop the capacity to think critically about digital media content and helps them recognize biases and discrimination in the online environment. This capacity to think critically about digital media content has the potential to affect students' attitudes towards social differences and diversity. Students with more inclusive attitudes towards diversity and social differences are more likely to reject hate discourse. Therefore, it is suggested that inclusive attitudes towards diversity could affect students' responses towards hate discourse in the online environment in the context of rejection of hate discourse and promotion of respectful discourse.

As illustrated in Figure 2, the conceptual model proposes a specific pathway. First, Critical Digital Literacy (CDL); which encompasses critical evaluation, bias recognition, and ideological awareness, acts as the independent predictor. It is hypothesized to shape 'Inclusive attitudes toward diversity,' measured through openness to difference, appreciation of diversity, and comfort with others. In turn, both CDL and these inclusive attitudes point toward the

'Rejection of online hate speech,' a construct defined by disapproval, perceived harm, and support for respectful communication.

Figure 1

Conceptual Framework



Research gap

A substantial body of research has investigated CML as a way in which learners acquire the skills to critically engage with digital texts, detect bias, and challenge dominant representations in a mediated context (Kellner & Share, 2007; Hinrichsen & Coombs, 2014). At the same time, attitudes toward diversity have also been widely researched in the context of education/intercultural studies, where a positive attitude toward diversity has been linked to empathy, social skills, and positive social interaction (Miville et al., 1999). Moreover, studies of online hate discourse have also shown its prevalence, its effects, and its impact on individuals' online behavior, as well as individuals' responses to hate discourse (Suler, 2004; Saha et al., 2019; Celuch et al., 2022; Wachs et al., 2023).

In spite of the richness of these constructs, they have so far developed independently of each other. There is a lack of empirical research that explores CML, positive attitudes towards diversity, and responses to hate speech online under a common analytical umbrella. This is particularly evident in the context of HE, in which digital learning environments play a vital part in the academic life of students. In addition, little research has focused on the interplay of these constructs among university students in their natural digital academic environments.

The present study addresses this gap by examining these relationships within a single conceptual model. In doing so, it offers a more integrated account of how students' critical engagement with digital content and their orientations toward diversity are associated with their responses to harmful discourse in HE contexts.

Methodology

Research Design

This study adopted a mixed-methods design with priority given to the quantitative component and it follows an explanatory sequential design in which the quantitative phase addresses the main research questions. The qualitative phase is used to explain and contextualize the statistical findings (Creswell & Plano Clark, 2018). The quantitative component examins the relationships among Critical Media Literacy (CML), inclusive attitudes toward diversity, and the rejection of online hate speech. The qualitative component then explored how students described their experiences with online hate speech. The focus is on how they recognized it, and how they responded to it within digital learning environments.

Participants

The sample included 79 undergraduate students from the English Studies Department at the Faculty of Letters and Human Sciences, Mohammed First University, Oujda, Morocco. Participants were recruited through convenience sampling across three academic levels: Semester 2 (n= 37,46.8%), Semester 4 (n = 36,45.6%), and Semester 6 (n = 6,7.6%). The sample included 46 female students (58.2%) and 33 male students (41.8%). The vast majority of participants (n = 76,96.2%) were between 18 and 24 years of age, with the remaining participants (n = 3,3.8% aged between 25 and 29.

As a behavioral indicator of digital technology engagement and functional digital literacy, participants reported their frequency of generative AI tool usage for academic purposes: 19.0% (n = 15) reported using AI "Always," 32.9% (n = 26) "Often," 40.5% (n = 32) "Sometimes," 6.3% (n = 5) "Occasionally," and 1.3% (n = 1) "Never Overall" , 92.4% of respondents actively engaged with digital AI tools in their studies at least "sometimes," reflecting high routine exposure to digital academic platforms. Detailed socio-economic status (SES) metrics and formal prior media literacy course completed were not explicitly collected in this initial survey round, though participants represent a broadly uniform demographic of public university students in regional Morocco.

Table 2

Demographic Profile and Digital Tool Engagement (N = 79)

Demographic Variable	*Category / Level*	*Frequency (n)*	*Percentage (%)*
Gender	Female	46	58.2%
	Male	33	41.8%
Age	18–24 years	76	96.2%
	25–29 years	3	3.8%
Academic Level	Semester 2 (S2)	37	46.8%
	Semester 4 (S4)	36	45.6%
	Semester 6 (S6)	6	7.6%
Academic AI Tool Usage (Digital Tool Engagement)	Always	15	19.0%
	Often	26	32.9%
	Sometimes	32	40.5%
	Occasionally	5	6.3%
	Never	1	1.3%

Note. N = 79. Percentages may not sum to 100.0% due to rounding.

Instruments

Data were collected through a structured questionnaire that combined quantitative scales with qualitative prompts. The quantitative section included five-point Likert-scale measures. Critical Media Literacy was assessed using an instrument adapted from Kellner and Share's (2019) framework, which measures students' ability to critically analyze digital information and

recognize bias, ideology, and media representation. Inclusive attitudes toward diversity were measured using items adapted from the Miville-Guzman Universality-Diversity Scale Short Form (Miville et al., 1999). The scale assesses four dimensions of diversity orientation: diversity of contact, relativistic appreciation, comfort with differences, and tolerance toward diverse social groups. Rejection of online hate speech was measured using items adapted from previous research (Celuch et al., 2022; Obermaier et al., 2023; Wachs et al., 2023). The instrument captured four dimensions: disapproval of hateful discourse, recognition of its harmful effects, rejection of its normalization, and support for respectful online communication. To complement the quantitative data, the questionnaire concluded with two open-ended prompts. Students were asked to describe a specific encounter with online hate speech in a digital learning environment and explain the criteria they used to identify it as hate speech.

Data Analysis

Descriptive statistics and Cronbach's alpha were computed first. McDonald's omega could not be estimated because the confirmatory factor analysis (CFA) models did not converge. This non-convergence is likely attributable to the small sample size ($\eta = 79$) relative to the complexity of the models and the number of parameters being estimated. The implication of this non-convergence is that the structural validity of the survey constructs could not be statistically confirmed for this specific dataset; therefore, analyzes rely solely on Cronbach's alpha for internal consistency, and the relationships among variables should be interpreted with caution. Normality was assessed using the Shapiro-Wilk test, and since all variables departed from normality, Spearman's rank-order correlation was used to examine the relationships among CML, inclusive attitudes, and rejection of online hate speech. Mediation was tested using the causal-steps approach proposed by Baron and Kenny (1986) through three linear regression models estimating paths a, b, c, and c'. Qualitative data were analyzed using Braun and Clarke's (2006) six-phase thematic analysis. Coding was conducted at the semantic level, and it focused on the explicit meanings in students' responses. Initial codes reflected recurring ideas such as stereotyping, discrimination based on religion, ethnicity, identity, gender-based prejudice, and social exclusion before being grouped into themes that explain how students recognized and responded to online hate speech. Finally, the quantitative and qualitative findings were integrated during interpretation to explain the statistical relationships alongside students' accounts of recognizing and responding to hate speech in digital learning environments.

Results & Discussion

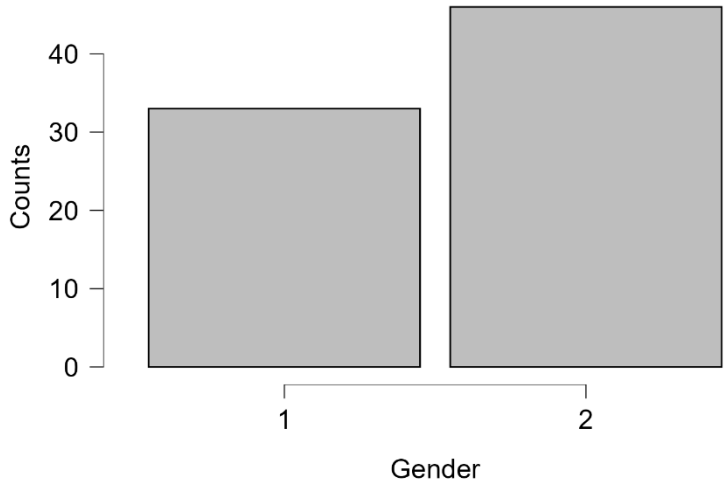
Quantitative Findings

Descriptive Results

The study involved 79 participants, among whom females (57.3%, n = 43) outnumbered males (42.7%, n = 32). The gender distribution is relatively balanced and is unlikely to create problems in terms of gender as an influencing variable in the later stages of the analysis. Of these participants, 76 were aged between 18 and 24, while the remaining three were between 25 and 29 years old.

Figure 2

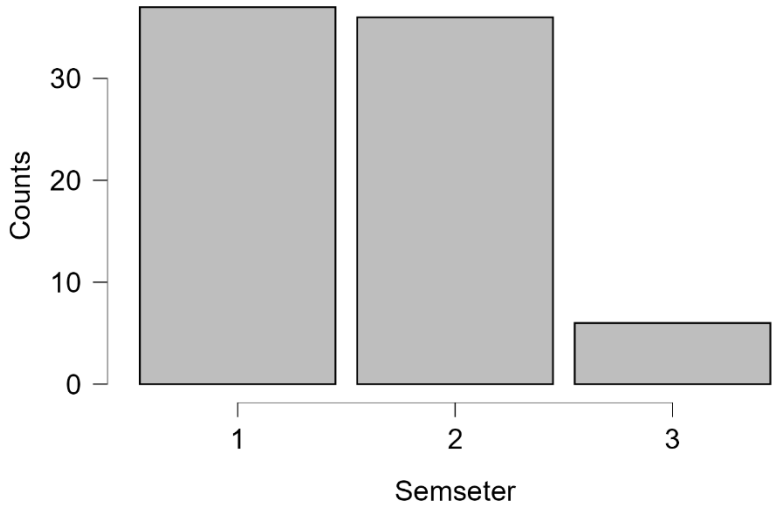
Gender Distribution



The study attempted to cover a diverse sample of undergraduate students; therefore, the questionnaire was distributed to all students regardless of the semester in which they were enrolled. Those who participated in the study were enrolled in S2 (n = 37), S4 (n = 36), and S6 (n = 6).

Figure 3

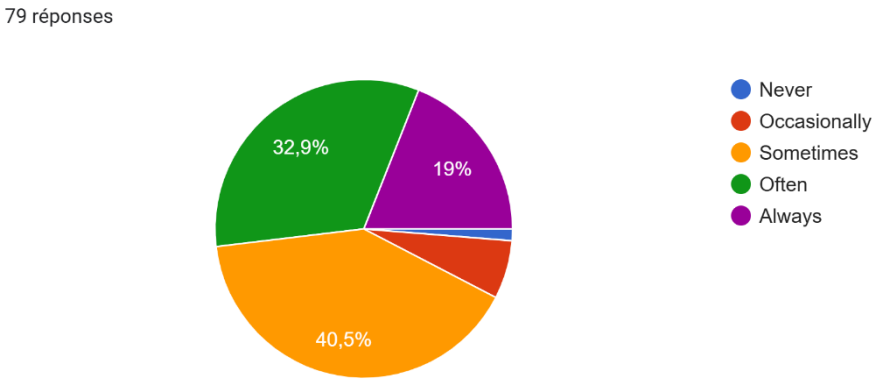
Semester Distribution



Upon being requested to grade their usage of AI in their academic life, the majority admitted high usage of generative AI software. Notably, only five admitted that they occasionally used AI, while only one student stated that he/she never used them.

Figure 4

Frequency of AI Use for Study



Moreover, descriptive statistics concerning all three constructs demonstrated rather positive and high mean values among the respondents. In particular, with regard to Critical Media Literacy, students showed an ability to evaluate online information critically, with mean values ranging from 3.55 to 4.08. These scores indicated that the participants were aware of bias and stereotypes, as well as the ideological nature of the Internet. As regards Inclusive Attitudes Toward Diversity, respondents demonstrated open and positive attitudes toward cultural differences, with mean values ranging from 4.04 to 4.24, indicating an interest in intercultural communication. Lastly, concerning Rejection of Online Hate Speech, students expressed disapproval of hate speech and offensive online content, with mean values ranging from 3.72 to 4.19, while also demonstrating awareness of its consequences.

Prior to conducting the inferential analyses, it was necessary to assess the reliability of the three constructs employed in the online survey, as reliable instruments allow for more accurate interpretation of the results. The reliability of all constructs was evaluated using Cronbach's alpha coefficients because McDonald's omega could not be estimated, as the CFA models failed to converge for all three constructs. The results revealed that CML exhibited the lowest level of reliability (α = .627, 95% CI [.510, .743]) among the three measures, falling within the questionable-to-acceptable range. In contrast, Inclusive Attitudes Toward Diversity demonstrated high reliability (α = .822, 95% CI [.734, .911]), while Rejection of Online Hate

Speech showed good reliability (α = .783, 95% CI [.703, .864]). While two of the measures demonstrated satisfactory internal consistency, the CML construct exhibited lower reliability (α= .627, 95% CI [.510, .743]), falling below the conventional threshold. This low reliability indicates that the CML scale items may not consistently measure a single underlying construct within this specific sample, and this variance must be explicitly considered when interpreting its predictive power. Future research should focus on refining the CML instrument, potentially by revising ambiguous items or developing a scale specifically tailored to the Moroccan higher education context.

Table 3

Reliability Statistics for the Study Constructs

Construct	Cronbach's α	SE	95% CI LL	95% CI UL
Critical Media Literacy (CML)	.627	.059	.510	.743
Inclusive Attitudes Toward Diversity	.822	.045	.734	.911
Rejection of Online Hate Speech	.783	.041	.703	.864

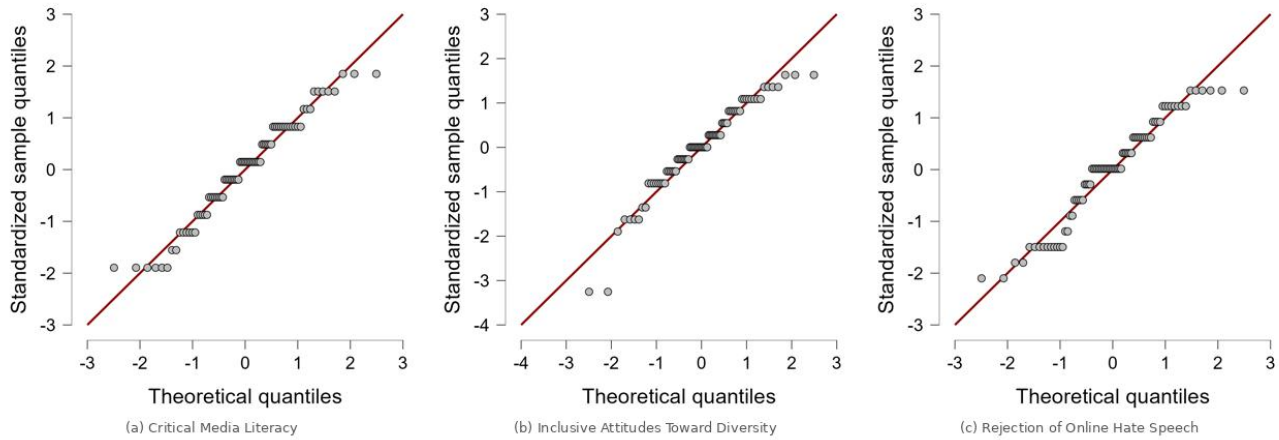
Note. α = Cronbach's alpha; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit.

Inferential analysis

In order to conduct inferential analyses confidently, it is imperative to assess the assumption of normality. That is, each dataset has its own characteristics that need to be understood before selecting the most appropriate statistical tests for further analysis. For this purpose, the Shapiro–Wilk test was conducted. The results indicated that all three variables violated the assumption of normality: Critical Media Literacy (W = .965, p = .027), Inclusive Attitudes Toward Diversity (W = .943, p = .002), and Rejection of Online Hate Speech (W = .940, p = .001). Since all p-values were below .05, the null hypothesis of normality was rejected. These findings suggest that parametric inferential tests based on normality assumptions may not be appropriate in this case. Therefore, non-parametric alternatives were employed, particularly Spearman's rank-order correlation.

Figure 4

Q-Q Plots for Normality Assessment of Study Constructs



RQ1. How do CML and inclusive attitudes toward diversity shape university students' responses to online hate speech in digital learning environments?

The study' first research question requires that an investigation be done into how the variables, namely CML and inclusivity towards diversity, affect the reaction of university students to online hate speech in digital educational settings. To investigate this, three linear regression analyses were performed using the Baron and Kenny (1986) steps to mediation method. The findings are presented below.

H1: CML and Inclusive Attitudes Toward Diversity

Hypothesis 1 was tested using Model 1 in order to test whether CML significantly predicts inclusive attitudes towards diversity (path a). The results from the analysis were statistically significant and accounted for 23.8% of the variance in the inclusion attitude ($R^2 = .238$, $F(1, 77) = 23.99$, $p < .001$). The variable CML proved to be a significant positive predictor ($\beta = .487$, $B = 0.611$, $SE = 0.125$, $t = 4.898$, $p < .001$). This finding supports H1.

H2: Inclusive Attitudes Toward Diversity and Rejection of Online Hate Speech

Model 3 evaluated the impact of CML on the rejection of hate messages on the Internet without mediation. CML explained 15.5% of the variation ($R^2 = .155$, $F(1, 77) = 14.10$, $p < .001$), and had a significant positive impact ($\beta = .393$, $B = 0.443$, $SE = 0.118$, $t = 3.755$, $p < .001$). H2 is therefore supported.

H3: Mediation of Inclusive Attitudes Toward Diversity

Model 2 included both CML and inclusive attitudes toward diversity as predictors of rejection of online hate speech (paths b and c′). The model was statistically significant and explained 33.4% of the variance in rejection of online hate speech ($R^2 = .334$, $F(14, 64) = 2.289$, $p < .05$). CML remained a significant predictor after controlling for inclusive attitudes toward diversity ($B = 0.403$, $SE = 0.145$), indicating that its direct effect on rejection of online hate speech persisted. These findings suggest partial mediation, whereby inclusive attitudes toward diversity partially explain the relationship between CML and rejection of online hate speech. Therefore, H3 received partial support. However, a bootstrapped analysis of the indirect effect is recommended to formally confirm the mediation effect.

Table 4

Summary of Regression Models for RQ1

Model / Predictor	***B***	***SE***	**β**	***t***	**R^2**
Model 1: CML → Inclusive Attitudes (a path)					.238
CML_TOTAL	0.611	0.125	.487	4.898***	
Model 3: CML → Rejection (total effect, c path)					.155
CML_TOTAL	0.443	0.118	.393	3.755***	
Model 2: CML + Inclusive Attitudes → Rejection (b path & c' path)					.334
CML_TOTAL (c' path)	0.403	0.145	—	2.776*	

Inclusive Attitudes (b path)	*varies*	*varies*	—	—	

*Note. *** p < .001, * p < .05. Inclusive Attitudes item-level coefficients (b path) varied across individual items; the overall model R^2 = .334 is reported. Bootstrapped indirect effects are recommended to formally confirm mediation.*

Qualitative Findings

To further investigate how students experience this hate speech phenomenon in practice, the qualitative analysis is organized into three core themes derived from Braun and Clarke's (2006) thematic framework. The systematic classification that is offered by this framework allowed for a structured exploration of the participants shared meanings and linguistic patterns. The process of systematic categorization provides an analysis that can dissect the multifaceted nature of student responses to digital hostility. Thus, this analysis allows for identifying the explicit ways through which learners deal with exclusionary discourse in their online educational environments.

Theme 1: The Cognitive and Analytical Deconstruction of Ideological Discourse

The first theme highlights the cognitive and analytical processes students used to recognize online hate speech, which aligns with CML. In their responses, several students said that they identified hate speech by its focus on attacking others cultures, traditions and social identities rather than engaging with ideas. They described messages that target "*a whole group of people based on their race*" or individuals "*based on their religious and cultural identity only rather than discussing ideas or opinions.*" These responses show that students could distinguish between criticism of viewpoints and discrimination against people, which is a key objective of Critical Media Literacy (Kellner & Share, 2019). One participant demonstrated a deeper level of analysis by linking hostility toward Arabs and Muslims to the historical narratives surrounding 9/11. They recognize these messages not as isolated incidents, but as a component of an ideological discourse (Kellner & Share, 2007), that base hate full language on historical events. These findings support the quantitative results, which suggest that students with stronger critical media literacy are better able to identify and reject online hate speech independently of their general inclusive attitudes.

Theme 2: Affective Registering of Harm vs. Systematic Critical Analysis

In contrast to the analytical processes related to CML in the previous theme, an emotional dimension of recognizing online hate speech emerges within the second theme. Some students described feeling uncomfortable or sensing that the classroom or online environment had become hostile without explicitly explaining the ideological or structural reasons behind the harmful content. These responses reflect inclusive attitudes that are characterized by openness to diversity and sensitivity to the mistreatment of others (Miville et al., 1999). These emotional responses work in tandem with critical analysis and helps explain why inclusive attitudes only partially mediated the relationship between critical media literacy and the rejection of online hate speech. The findings are consistent with Lo Cricchio et al. (2023), who argue that tolerance toward diversity functions as an independent protective factor, and with Marolla-Gajardo and Lozano-Mas (2025), who suggest that valuing diversity encourages people to reject hate speech because they recognize its broader impact on educational and social environments.

Theme 3: Online Disinhibition, Bystander Reactions, and Effects on the Learning Environment

The final theme focuses on the digital environments in which online hate speech occurred and their impact on students' learning experiences. Most participants reported that they encountered

hate speech in online spaces with light moderation, including class chat groups, Discord servers, Facebook groups, and WhatsApp groups. These online settings reflect the conditions that associated with the online disinhibition effect, where reduced social cues encourage people to express hostility they would be unlikely to display in face-to-face interactions (Suler, 2004). Several students also described bystander behavior. This means that peers often laughed at or reinforced hateful comments instead of challenging them. This pattern is consistent with research on bystander responses to cyberhate (Obermaier et al., 2023). Participants further reported that some students withdrew from online groups and avoided academic discussion. They also reported that similar disengagement spread among their peers. These outcomes demonstrate the harmful effects of online hate speech on students' well-being and sense of belonging, as well as its impact on academic participation (Saha et al., 2019; Marolla-Gajardo, 2025). Thus, these findings suggest that online hate speech harms individual students and weakens the inclusiveness of digital learning spaces.

Conclusion

This study examines how critical media literacy (CML) and inclusive attitudes toward diversity shape university students' responses to online hate speech in digital learning environments. The study uses a mixed-methods approach and it combines survey data with students' qualitative accounts about their lived experience with online hate speech in online learning environments. The findings suggest a potential positive association between CML and inclusive attitudes toward diversity, as well as a link between these variables and the rejection of online hate speech. Furthermore, inclusive attitudes appeared to partially mediate this relationship, implying that CML might influence hate speech rejection both directly and indirectly. However, given the study's methodological limitations, specifically the small sample size, the low reliability of the CML scale, and the absence of bootstrapped mediation, these conclusions should be interpreted as suggestive and exploratory rather than definitive. The qualitative findings complement these results by showing that students rely on both critical analysis and affective sensitivity when identifying and responding to online hate speech. At the same time, their responses suggest that this ability is not equally developed across all forms of group-based discrimination.

The study addresses an important gap in the literature by bringing together three constructs that have largely been examined separately: critical media literacy, inclusive attitudes toward diversity, and online hate speech. This integrated perspective provides a clearer understanding of how students' critical engagement with digital content and their attitudes toward diversity jointly shape their responses to harmful online discourse within digital learning environments.

The findings also have practical implications for higher education. Reducing online hate speech in academic digital spaces requires more than moderation policies or disciplinary measures. Universities should also strengthen students' critical media literacy and foster inclusive attitudes through curricula and digital citizenship initiatives that encourage critical reflection on bias, stereotyping, discrimination, racism and respectful online communication, which will foster an inclusive environment for learners from diverse cultural backgrounds.

Several limitations must be acknowledged and considered when interpreting these findings. First, the reliance on a small convenience sample ($\eta = 79$) drawn from a single department at Mohammed First University limits the statistical power of the analysis and the generalizability of the findings to broader or more diverse student populations. Second, the CML scale demonstrated low internal reliability ($\alpha = .627$), which weakens the confidence in the observed statistical relationships involving this construct, as the measure may not accurately capture students' critical digital skills. Furthermore, the lack of Confirmatory Factor Analysis (CFA)

convergence means the structural validity of the constructs remains unconfirmed for this sample. The cross-sectional design inherently precludes any causal inferences between variables. Finally, because the mediation effect was not confirmed through bootstrapping, the indirect effects cannot be rigorously verified. Future research must address these issues by utilizing larger samples, refining the CML instrument, and employing bootstrapped mediation analyses.

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Appendix A

CML & Online Hate Speech

Thank you for taking part in this study. Your participation is highly appreciated.

The aim of this research is to examine how university students engage with digital environments, with a focus on critical digital literacy, attitudes toward diversity, and responses to online hate speech. The study seeks to understand how students evaluate digital content, how they perceive diversity, and how they respond to harmful or discriminatory discourse online.

Your responses will remain anonymous and will be used only for research purposes.

For the purpose of this study, *critical media literacy* refers to your ability to critically evaluate online information, recognize bias, and reflect on how digital content shapes understanding. *Inclusive attitudes toward diversity* refer to your openness to differences and your respect for people from diverse backgrounds. *Online hate speech* refers to harmful or offensive content that targets individuals or groups based on aspects such as identity, culture, or beliefs.
Please indicate your level of agreement with each statement using the following scale:

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

There are no right or wrong answers. Please respond honestly based on your own experience.

* Indicates required question

Demoghraphics

1. **Gender** *

Mark only one oval.

Male
Fem

a
l
e

2. **Age** *

Mark only one oval.

18-24

25-29

30 or above

3. **Semseter** *

Mark only one oval.

S2 S4 S6

4. **Frequency of AI use for study** *

Mark only one oval.

Never

Occa
sionally

Some
times

Often

Always

Critical Media Literacy (CML) (Kellner & Share, 2019)

5. *Critical Evaluation of Online Content1:*

*

I check the credibility of online sources before trusting the information.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

6. *Critical Evaluation of Online Content2:*

*

I check the credibility of online sources before trusting the information.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

7. *Recognition of Bias and Stereotypes1:* *

I can identify biased or one-sided information in digital content.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

8. *Recognition of Bias and Stereotypes2:*

*

I notice when online content presents stereotypes about certain groups.

Mark only one oval.

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

9. *Ideological Awareness and Reflection1:* *

I reflect on how digital media can shape opinions about society.

Mark only one oval.

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

10. *Ideological Awareness and Reflection2:*

*

I understand that online content may reflect power or political interests.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Inclusive Attitudes Toward Diversity (Miville & Guzman – Universality–Diversity Orientation)

11. *Diversity of Contact1:*

*

I enjoy interacting with people from different cultural backgrounds.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

12. *Diversity of Contact2:* *

I am interested in learning about cultures different from my own.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

13. *Relativistic Appreciation1:* *

I value perspectives that are different from mine.

Mark only one oval.

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

14. *Relativistic Appreciation2:*

*

I believe that differences between people enrich our understanding.

Mark only one oval.

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

15. *Comfort with Differences1:*

*

I feel comfortable communicating with people from different backgrounds.

Mark only one oval.

Strongly

Disagree
Disagree

Neutral

Agree
Strongly Agree

16. *Comfort with Differences2:*

*

I feel comfortable communicating with people from different backgrounds.

Mark only one oval.

Strongly
Disagree
Disagree

Neutral

Agree
Strongly Agree

Rejection of Online Hate Speech Suler (2004) + cyberhate literature (Celuch et al., 2022; Obermaier et al., 2023; Wachs et al., 2023)

17. *Disapproval of Hate Speech 1:*

*

I disapprove of offensive or hateful comments directed at individuals or groups online.

Mark only one oval.

Strongly
Disagree
Disagree

Neutral

Agree
Strongly Agree

18. *Disapproval of Hate Speech 2:* *

I believe that hateful language online is unacceptable.

Mark only one oval.

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

19. *Perceived Harm of Hate Speech1:* *

I believe that online hate speech can harm individuals emotionally.

Mark only one oval.

Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree

20. *Perceived Harm of Hate Speech2:* *

I think that hate speech can negatively affect online communities.

Mark only one oval.

Strongly Disagree
Disagree

Neutral

Agree

Strongly Agree

21. *Rejection of Normalization1:* *

Hate speech should not be normalized in digital environments.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

22. *Rejection of Normalization2:*

*

I believe users should challenge hateful content when they see it online.

Mark only one oval.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Appendix B

Students' Experiences with Online Hate Speech in Digital Learning Environments

Thank you for taking part in this study. Your participation is highly appreciated.

The purpose of this research is to explore how university students recognize and respond to online hate speech in digital learning environments. We are interested in understanding students' experiences with harmful online discourse, the ways they identify such content, and the factors that influence their responses to it. We also seek to explore how critical engagement with digital content and attitudes toward diversity may shape these experiences.

This questionnaire contains open-ended questions. We invite you to share your thoughts, experiences, and perspectives as openly as possible. There are no right or wrong answers; we are interested in your personal views and experiences.

Your participation is entirely voluntary. All responses will remain anonymous and confidential and will be used solely for academic research purposes. No information that could identify you personally will be collected or reported.

For the purpose of this study, *online hate speech* refers to harmful or offensive content that targets individuals or groups based on aspects such as identity, culture, ethnicity, religion, gender, or beliefs.

Thank you for your contribution to this research.

* Indicates required question

1. Can you describe a situation in which you encountered what you considered to be online hate speech in a digital learning environment? *

2. How did you recognize it as hate speech, and what made you view it that way? *