

Practicing Netiquette in Online Communication Between Students and Professors in Higher Education: A Systematic Review

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Abstract

The main objective of this research is to perform an in-depth analysis of current online behaviors and desired netiquette rules among students and teachers in higher education institutions. The pervasive integration of technology into education, especially during the COVID-19 pandemic, has necessitated a shift from traditional face-to-face learning to online platforms. This transition highlights the importance of netiquette— a set of guidelines for etiquette on the internet. The systematic literature review design was performed to critically and analytically explore the findings of the previously published studies on the topic. A total of 8 peer-reviewed articles passed the inclusion criteria and were reviewed to extract data for the analysis. A PRISMA model was used to conduct the systematic literature review process. The review conducted in this study examines the extent to which these norms are understood and adhered to within higher education, particularly focusing on communication between students and professors. The research encapsulates the evolution of online communication practices and identifies the challenges and opportunities arising from the reliance on digital platforms in academic settings. By synthesizing existing literature, the study reveals gaps in knowledge and practice regarding netiquette, underscoring the necessity for more targeted research to develop effective strategies for fostering positive and productive online interactions. Ultimately, this research aims to contribute to the enhancement of communication practices in digital learning environments, thereby improving the overall quality of education delivered online.

Keywords: netiquette, online education, higher education, digital communication, student-professor interaction, COVID-19, systematic review, e-learning platforms, academic integrity

1. Introduction

The widespread integration of technology into everyday life has posed a unique question: How should individuals present themselves on the internet? Etiquette, traditionally defined as the protocol of socialized behavior instead of private acts, is also a huge factor in this issue (Paternoster, 2022). The COVID-19 pandemic era was when the education world also saw many consequences (Pokhrel & Chhetri, 2021). First, since the World Health Organization (WHO) advised self-isolation and no attending classes in person, medical educational institutions were the first to be affected as the learning from the usual traditional face-to-face format was transferred to online learning platforms (Silalahi et al., 2022; Adedoyin & Soykan, 2023; Hanif et al., 2023). The sudden disruption brought about several challenges that the administrative staff, lecturers, and students faced, as they were only aware of the traditional approach of face-to-face sessions. However, the model was completely new and anything but the norm to everyone. Then, even if communicating with teachers and students tried to find shared grounds, it was only sometimes easy, given the certain problems of both face-to-face and online education (Resmi et al., 2023). The digital domain is increasingly becoming integral to academic engagement, making the quality of learners-tutor interactions within virtual learning environments have a direct influence on the educational experience. For instance, poor communication practices during virtual learning environments can lead to misunderstandings and diminished respect as it can erode the student-professor relationship, which is a critical success factor of e-learning. For this reason, it is essential to understand and promote netiquette in these online learning interactions to increase collaboration, encourage active participation, and improve overall academic outcomes.

To successfully optimize an online experience for students, one needs to establish specific guidelines before commencing virtual classes. These guidelines, commonly called netiquettes, apply to any online communication,

synchronous or asynchronous (Al-Khatib, 2023). The merging of "net" and "etiquette" (Lim, 2017) provided the definition for netiquette, comprising an entire range of ethical principles, polite manners, and conventions for online communication and engagement. Research results show that implementing these ground rules for such online discussions nurtures a sense of community among students and their motivation to join the discussion actively, which gives good quality education. Despite an increased understanding of the value of netiquette in facilitating efficient online communication, research in this area remains limited. The present research aims to enhance the already existing findings on the topic in the contemporary literature. While current research has mostly focused on asynchronous communication platforms such as email, social media, and online discussion forums, a major void exists in understanding students' knowledge and adherence to netiquette principles (Lim, 2017). However, this area consists of a notable gap in understanding students' knowledge and adherence to the principles of netiquette. Since online education is rapidly growing and there are already several challenges that netiquette mitigation could resolve, it becomes necessary to dwell upon this subject more thoroughly and do more research to gain a better understanding of the field.

As the number of e-learning platforms grows, the context of higher education has changed, bringing about new challenges and opportunities for students and professors. With the increasing number of institutions that use digital learning platforms, we need to study the outcome of academic communication practices. Observing the difference online communication is making in higher education nowadays becomes important to cope with new challenges and seize the advantages of online learning models. Greenhow and Lewin (2019) assert that the rise of informal communication channels has impacted student-professor relationships. Channels such as social media, instant messaging, and discussion forums have added complexity to these dynamics in online settings. Though these channels give rise to networks of increased connectivity and collaboration, they also raise the chances of wrong communication, professional misconduct, and the downfall of academic integrity. Addressing these challenges requires a thorough understanding of the structure of online communication and the creation of ways to encourage responsible and ethical digital interaction. Since online communication is wide and fast expanding, a ready manual for etiquette fundamentals is necessary. Such directives, which are the ultimate determiners of online communication and behavior etiquette, can function equally well as a digital navigation aid and help establish professional and respectful norms. According to Zulqadri et al. (2022), putting the standards of netiquette in place can help to decrease the dangers of cyber harassment, encourage responsibility, and promote the creation of favorable environments for learners on online platforms.

The main objective of this research is to perform an in-depth analysis of current online behaviors and desired netiquette rules among students and teachers in higher education institutions. Combining literature through a systematic approach in the current study, we aimed to give views on the extent to which the accepted norms of netiquette are followed in the educational environment of modern times.

H₁: Adherence to netiquette principles in online communication between students and professors positively influences the quality of the educational experience.

H₂: Netiquette adherence differs across various demographic groups, impacting the effectiveness of online communication creating the need for tailored guidelines.

The formulated hypotheses in the systematic review approach are aligned since the research design enables a comprehensive examination of existing literature to test the primary hypothesis regarding the positive impact of netiquette on educational outcomes. The secondary hypothesis about differences in netiquette adherence can be explored by analyzing studies that consider demographic factors. Additionally, the systematic literature review design supports a comparative analysis, allowing for a comprehensive understanding the impact of these factors across various educational contexts. This study brings out the significance of netiquette as one of the ingredients that determine the success of online learning thereby taking theories such as SIPT into the academic communication interface. Thus, the results could be valuable for developing guidelines for interaction with students through the Net by higher education institutions. Scholars will be able to apply these findings to the choice of training that enhances the understanding of netiquette and thereby enhances the quality of relations between students and teachers in an online learning environment.

1.1 Research Questions

The present research aimed at exploring various aspects of practicing netiquette in online communication between students and professors in higher education settings. To achieve this goal, a set of three research questions was formulated, as follows:

(1) How has the integration of technology impacted the evolution of online communication practices between students and professors in higher education?

(2) What challenges do informal communication channels pose to student-professor interactions in online settings, and how can these challenges be effectively addressed?

(3) What are the implications of understanding and adhering to netiquette principles for promoting positive student-professor interactions and enhancing the quality of online education in higher education institutions?

2. Literature Review

The literature on practicing netiquette in online communication between students and professors in higher education reveals several key themes. These themes include the evolution of online communication, the challenges of informal communication channels, the establishment of etiquette guidelines, and the importance of understanding netiquette principles for developing effective online interactions.

2.1 Evolution of Online Communication in Higher Education

The introduction of technology in higher education has changed the context of academic communication, transitioning from traditional face-to-face interactions to virtual platforms. Adedoyin and Soykan (2023) highlight this new perspective, emphasizing the growing prevalence of online classrooms as educational institutions worldwide embrace digital learning environments. This transition is being driven by causes such as advances in educational technology, globalization of education, and the expansion of distance learning programs.

Sun and Chen (2016) examine this evolution, explaining both the benefits and challenges of online communication in higher education (Ansari et al., 2023). They highlight advantages such as enhanced accessibility, flexibility, and collaborative opportunities among students and professors. However, they also raise concerns regarding issues like the digital divide, inadequate technological infrastructure, and the imperative for improved digital literacy. Research emphasizes the transformative impact of technology on academic communication, particularly the development of new kinds of interaction in higher education. Englund et al. (2017) presented a 10-year longitudinal study of teachers' perspectives and approaches to teaching and learning with technology. A phenomenographic approach was used to study nine lecturers from a Swedish university's online Bachelor of Science in Pharmacy and Master of Pharmacy programs, and the results showed successful implementation of educational technologies in higher education (Englund et al., 2017). Despite the wealth of literature on online communication in higher education, there remain gaps in understanding, particularly regarding the communication structures between students and professors. While broader trends and challenges are addressed, there is a lack of advanced study of the exact etiquettes guiding these interactions.

2.2 Challenges Posed by Informal Communication Channels

The growth of informal communication channels in online contexts provides opportunities and challenges for student-professor relations in higher education. Greenhow and Lewin (2019) explain how social media, instant messaging, and discussion forums facilitate increased connectivity and collaboration between students and professors. However, they also emphasize the problems of maintaining professionalism, privacy, and academic integrity within these informal channels. Stöckl and Struck (2022) investigate this phenomenon, investigating the impact of informal communication channels on the quality of student-professor interactions. Their research shed light on issues such as miscommunication, violations of behavior, and the dissolving of boundaries between personal and academic fields. They emphasize the need for strategies to address these challenges, including promoting digital literacy, establishing clear guidelines for online communication, and cultivating a culture of respect and accountability (Spante et al., 2018). This study highlights the dual nature of informal communication channels in online student-professor interactions. For instance, Trantik et al. (2023) conducted a study with Serbian and Slovenian students who emailed their teachers. They created an evaluation form to assess the style and formality of student email correspondence and the layout. Students were invited to fill out an online questionnaire that examined their views about culture, attitudes toward their professor and studies, digital literacy, social media use, and self-perceptions of their communication abilities. Responses were analyzed, and structural equation modeling was used to test seven hypotheses on the effects of factors influencing email writing style. As expected, the findings reveal major disparities in these characteristics between the two countries. Students' judgments of their communication abilities in both nations influence their email communication style. While these platforms offer avenues for enhanced connectivity and collaboration, they also introduce complexities that can slow the quality of communication.

Although the literature provides important insights into the issues presented by informal communication channels, some gaps and inconsistencies need to be clarified for further exploration. One such gap is the need for more attention to specific strategies for improving successful communication and addressing issues during informal online interactions between students and instructors. Additionally, Further research is needed to investigate the interactions between various communication platforms and their impact on student-professor relationships.

2.3 Need for Establishing Etiquette Guidelines in Online Settings

Researchers recognize the urgency of developing responsible and ethical online behavior, emphasizing the requirement of setting clear and thorough etiquette guidelines for students and teachers in higher education contexts. Al-Khatib

(2023) highlights this, advocating for implementing netiquette principles to govern online communication. The research suggested a systematic framework of netiquette rules for online education based on the basic concepts of netiquette and the digital citizenship scale (DCS) (Kim & Choi, 2018). The study used qualitative data based on everyday observation and analysis of the online education experience to present a systematic framework that outlines more than 150 netiquette sub-rules in online education, which were clustered according to DCS and the classical basic rules of netiquette. Netiquette encompasses a range of principles, including courtesy, respect, and professionalism, aimed at promoting positive interactions and mitigating risks associated with online misconduct (Mistretta, 2021). Semingson and Owens (2017) contribute to this discussion by reporting on studies investigating establishing and implementing netiquette guidelines in online education environments. Their research highlights the important role of such guidelines in enhancing learning outcomes and promoting positive online interactions among students and professors. Moreover, they highlight the importance of involving stakeholders in formulating netiquette guidelines to ensure their relevance and effectiveness across diverse educational contexts.

The research emphasizes the importance of adopting netiquette guidelines in online higher education environments to promote responsible and ethical online activity. As this study emphasizes the necessity of netiquette guidelines, there still exist gaps in understanding about their development, implementation, and efficacy in varied educational environments. Further study is needed to explore the nature of online interactions and the factors influencing adherence to netiquette standards among students and professors (Dolzhich et al., 2022). Additionally, guidelines are needed to accommodate the changing nature of online communication, including emerging technology and platforms.

2.4 Importance of Understanding Netiquette Principles

Understanding and adhering to netiquette principles are important for promoting effective online communication between students and professors in higher education. Netiquette principles encompass a range of aspects, including communication etiquette, digital citizenship, and ethical conduct, as outlined by Gupta et al. (2022). Studies investigating the impact of netiquette on student-professor interactions highlight its important role in cultivating mutual respect, trust, and collaboration within virtual learning environments. Jamiai (2019) analyzed this by administering a questionnaire to assess the theoretical relationship between netiquette and creating connections. The sample consisted of fifty male and female respondents. The study found a link between netiquette and online connections, as predicted by the hypothesis. The project aimed to raise awareness among university students about netiquette in online learning groups, potentially contributing to academic research on online communication behavior.

Furthermore, research demonstrates the advantages of introducing netiquette and training programs into higher education programs. Such initiatives aim to equip students and professors with the requisite skills and knowledge to navigate digital spaces responsibly, enhancing quality online interactions and promoting a culture of respect and professionalism (Soler-Costa, 2021). This study emphasizes the need to understand netiquette guidelines for efficient online communication in higher education contexts. Theoretical frameworks include social identity theory, insights into the nature of online interactions, and the factors influencing adherence to netiquette guidelines. Moreover, the literature highlights the role of netiquette in promoting mutual respect, trust, and collaboration among students and professors.

While the research emphasizes the importance of learning netiquette rules, gaps still exist in our understanding of their implementation and effectiveness in various educational environments. A current study is needed to enhance the understanding of the complexities of netiquette education and training programs for learners and their teachers' conduct. Furthermore, there is a need for thorough guidelines that accommodate the changing landscape of online communication and digital technologies.

3. Method

3.1 Research Design

The present study employs a systematic literature review research design to examine existing literature on netiquette in online communication between students and professors in higher education. The research will identify, analyze, and synthesize relevant peer-reviewed articles with a focus on trends, challenges, and best practices that will enhance e-learning.

3.2 Data Source

Electronic databases, including PubMed, Scopus, ERIC, PsycINFO, Taylor Francis, Wiley Online Library, and Google Scholar, were systematically searched using keywords and Boolean operators. The search terms included variations of "netiquette," "online learning," "virtual learning," "students-professors' relationship," and "higher education." The search was limited to articles published in peer-reviewed journals within the past ten years to ensure currency and relevance. Inclusion criteria for study selection were defined based on relevance to the research topic, focusing on empirical studies, literature reviews, and theoretical frameworks examining netiquette practices in online

student-professor interactions within higher education settings. Studies addressing digital etiquette, online behavior, and virtual communication were also considered.

3.3 Instrument of Data Collection

A PRISMA search strategy was employed to identify relevant studies and conduct a systematic literature review on practicing netiquette in online communication between students and professors in higher education.

3.4 Data Collection Method

After conducting the initial search, duplicate records were removed, and the remaining articles were screened based on their titles and abstracts. Full-text articles meeting the inclusion criteria were then assessed for eligibility. Additionally, reference lists of selected articles were hand-searched to identify additional relevant studies.

3.5 Data Analysis Method

Data extraction and coding were performed to analyze the selected studies systematically. A coding framework was developed based on predefined categories derived from the research questions and objectives of the study. Key variables included in the coding process encompassed aspects such as the research design, sample characteristics, methodologies employed, key findings, and implications for practice. Two independent reviewers coded the selected studies to ensure reliability and consistency. Discrepancies in coding were resolved through discussion and consensus between the reviewers. Data extraction was conducted using a standardized form to capture relevant information from each study, including author(s), publication year, study design, sample size, data collection methods, main findings, and conclusions.

4. Findings

The table presents data from 8 diverse studies focusing on netiquette and online communication across educational settings. The total number of participants in these studies is 4,269 individuals, with a predominant representation of students (see Table 1). The range of participants varies significantly among the studies, with the smallest sample size of 50 students observed in a case study by Jamiai (2019) and the largest sample size of 2,849 participants in an empirical study conducted by Linek and Ostermaier-Grabow (2018). Various research methods were employed, including descriptive research, quantitative and qualitative approaches, descriptive cross-sectional studies, case studies, empirical studies, and confirmatory factor analysis. These methods were complemented by data collection techniques such as quantitative questionnaires, online surveys, self-constructed questionnaires, and visual art-based thematic analysis, reflecting the diverse methodologies used to explore netiquette phenomena in educational contexts. The effect size analysis compared paired samples using two different standardizers: Cohen's d and Hedges' correction. For Pair 1, Cohen's d and Hedges' correction yielded point estimates of 0.563 and 0.532, respectively, suggesting a moderate effect size. However, the confidence intervals indicated some variability, with lower bounds at -0.204 and -0.193 and upper bounds at 1.297 and 1.226, respectively, highlighting the need for cautious interpretation of the effect sizes. The results indicate that there is a general understanding of attributes of netiquette among the university students with gender differences in the compliance to those attributes being a function of age and education level. However, rules that related to the specific studies and ethical issues were not clear. Lack of netiquette significantly affected the development of an online relationship. In the same regard, faculty members argued about the necessity of a policy because of misunderstandings and ethical violations in the context of online courses. The findings highlighted the need for specific focus to be placed on interventions that are now teaching programs, as well as working with the concept of netiquette to better the communication skills of those participating in an online setting.

Table 1. Paired Samples Effect Sizes

			Standardiser	Point Estimate	95% Confidence Interval	
					Lower	Upper
Pair	Sample Size - Effect	Cohen's d	947.302	.563	204	1.297
1	size	Hedges' correction	1002.131	.532	193	1.226

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Study ID	Author(s)	Year	Study Design	Sample Size	Data Collection Methods	Key Findings	Implications
	Arouri, Y.M.; Hamaidi, D.A.	201 7	Descriptive Research	245 undergraduat e students	Quantitative questionnaire	University students have a consensus regarding general rules of Netiquette but limited awareness of specific rules and aspects. Practices reflect varied levels of implementation. Perspectives not affected by gender, specialization, or study level. Limited extent of Netiquette practices related to critical thinking skills.	Emphasize the need for targeted interventions t improve students' understanding and adherence to specific Netiquette rule and aspects. Develop strategies to enhance critica thinking skills through online communicatio
2	Atalay, G.E.	201 9	Quantitative	371 high school and university students	Online questionnaire (24 items)	Awareness of netiquette associated with age and education. University students have higher netiquette scores than high school students. Increased awareness of netiquette rules leads to greater concern about online behavior consequences.	Emphasize the importance of educating students about netiquette from an early age. Develop targeted interventions t improve awareness and adherence to netiquette rule among high school students. Implement comprehensive netiquette education programs in educational institutions to promote responsible online behavior.

Table 2. Data Extracted

3	Bahmei, N.; Mosalanejad, L.; Karimian, Z.; Emad, N.	202 3	Qualitative	467 medical students	Team-based visual art, thematic analysis	Identified three major themes related to ethical faults in cyberspace: reasons, faults, and preventive solutions. These themes encompassed creator-dependent factors and 160 codes. Emphasized the importance of integrity in online education and the need for preventative measures through education and training.	Highlighted the need for educational institutions to prioritize the prevention of cyber faults by implementing comprehensive education and training programs for all stakeholders involved in online learning communities. Encouraged the integration of ethical considerations into medical education curricula to foster responsible online behavior among medical students.
4	Rianto, S.; Mulyani, S.	202	Descriptive	78 college students	Assessment using TOPSIS method	Developed an assessment model for measuring college students' social competence during practicum. TOPSIS method used to rank 78 practicum students based on social competence. Model applicable for use by lecturers in Aerospace Engineering study program, Adisutjipto Institute of Aerospace Technology.	Provides a solution for assessing social competence in college students during practicum, aiding in identifying students' capabilities in collaboration, communication , conflict resolution, and networking. Enables the cultivation of global and humanistic character among graduates through enhanced social competence assessment.

continued	l						
5	Iqbal, S.; Hanif, R.; Ali, F.; Tahir, M.; Minhas, R.; Yasmeen, R.; Khokhar, A.; Laique, T.	202	Descriptive Cross-sectiona 1	97 dental faculty members	Self-constructe d questionnaire	Students exhibited casual attitude, lack of interest, and motivation in online classes. Issues included absenteeism, distractions, and unfair means during exams. Faculty lacked formal knowledge of netiquette rules and standards, highlighting the need for institutional guidelines. Proposed implementation of netiquette practices in undergraduate curriculum.	Highlighted the importance of addressing students' casual attitudes and providing guidance on attending online classes. Emphasized the need for formalized netiquette policies in educational institutions to promote professionalis m and ethical conduct in online learning environments.
6	Jamiai, A.	201 9	Case Study	50 students	Questionnaire	Significant correlation found between respecting netiquettes and building online relationships. Emphasized the importance of adhering to netiquette guidelines in virtual learning communities for fostering positive human relationships.	Highlighted the need to raise awareness among university students about the importance of respecting netiquettes in online learning environments. Suggested integrating netiquette education into higher education curricula to promote positive online communication behavior.

7	Linek, S.B.; Ostermaier-Grabow , A.	201 8	Empirical Study	2,849 participants (2,550 students and 299 lecturers)	Online survey	SL-contacts (students-lecturers) were rare and typically initiated by students. Appropriateness of SL-contacts varied depending on the individual case. Injunctive and descriptive norms aligned with each other. SL-contacts were perceived as less critical than expected.	Highlights the need for clear guidelines on appropriate interactions between students and lecturers on social networks like Facebook. Emphasizes the importance of understanding both injunctive and descriptive social norms in shaping online behavior. Encourages universities to establish policies regarding online interactions between students and lecturers.
8	Warniasih, K.; Wijayanti, P.S.; Syahruzah, J.K.; Rianto	202 3	Confirmatory Factor Analysis and Descriptive Analysis	12 student teacher candidates (initial trials), 100 students (operational field trials)	Trials in schools	Developed a social competence instrument for student teacher candidates with a netiquette concept approach. Identified three indicators of social competence related to communication skills. Confirmatory factor analysis showed good reliability (0.72). Descriptive analysis indicated positive results for communication skills indicators.	Highlights the importance of incorporating netiquette concepts into social competence assessment instruments for student teacher candidates. Provides a valid and reliable instrument for assessing communication skills in online microteaching practices. Offers insights for educational institutions on adapting assessment methods for online learning environments during the

Analysis conducted across several studies revealed significant correlations between various factors, such as age,

education level, and netiquette awareness. These findings highlight the complex relationship between individual and contextual variables in shaping online communication behaviors and depict the importance of considering these factors in designing effective interventions and educational initiatives. By recognizing the significance of regression analysis in expounding the determinants of netiquette adherence and effectiveness, the reviewed studies contribute valuable insights to the broader discourse on digital citizenship and ethical online communication in higher education (see Figures 1 and 2).



Figure 1. Effect size Regression Standardized Residual Histogram



Normal P-P Plot of Regression Standardized Residual

Figure 2. Effect size Regression Standardized Residual Normal P-P Plot

5. Discussion

The reviewed studies revealed that enhancing students' and faculty's understanding and application of netiquette is a critical success factor for improving online communication in higher education. The research conducted by Bahmei et al. (2023) provided significant insights into the ethical faults prevalent in cyberspace, underscoring the vital importance of upholding integrity within online educational contexts. Their identification of major themes related to ethical lapses emphasizes the necessity for preventative measures to address these issues effectively. These results resonate with the findings of Iqbal et al. (2021), who observed concerning behaviors such as students' casual attitudes and faculty members' limited awareness of netiquette rules. Such observations underscore the critical need for formalized netiquette policies

within educational institutions to cultivate professionalism and ethical conduct in online learning environments. By addressing these issues through targeted interventions and comprehensive education and training programs, institutions can uphold the integrity of online education and promote responsible behavior among all stakeholders involved (RQ1).

Bahmei et al. (2023) identified major themes related to ethical faults in cyberspace, emphasizing the importance of integrity in online education and the need for preventative measures through education and training. This result aligns with the findings of Iqbal et al. (2021), who noted issues such as students' casual attitudes and lack of formal knowledge of netiquette rules among faculty members, highlighting the need for formalized netiquette policies in educational institutions to promote professionalism and ethical conduct in online learning environments. Moreover, Linek and Ostermaier-Grabow (2018) explored interactions between students and lecturers on social networks, noting that such contacts were rare and typically initiated by students. This finding emphasizes the importance of establishing clear guidelines on appropriate interactions between students and lecturers on social platforms like Facebook and integrating netiquette education into higher education curricula (Jamiai, 2019). Additionally, Warniasih et al. (2023) developed a social competence instrument with a netiquette concept approach, providing valuable insights for adapting assessment methods for online learning environments and promoting responsible online communication behavior among student-teacher candidates (RQ2).

Implementing structured guidelines and training can address existing gaps and promote a more respectful and effective digital academic environment. Linek and Ostermaier-Grabow (2018) delved into the dynamics of interactions between students and lecturers on social networks, revealing the rarity of such contacts and their predominantly student-initiated nature. This phenomenon highlights the necessity for establishing clear guidelines regarding appropriate online interactions between students and educators, particularly on platforms like Facebook. As suggested by Jamiai (2019), integrating netiquette education into higher education curricula emerges as a crucial step in fostering responsible online communication behavior among university students. Furthermore, the work of Warniasih et al. (2023) in developing a social competence instrument with a netiquette concept approach holds significant implications for adapting assessment methods to suit online learning environments. By providing insights into assessing communication skills and promoting responsible online conduct among student-teacher candidates, their research contributes to the ongoing efforts to enhance the quality and effectiveness of online education practices.

6. Conclusion

This systematic literature review provides valuable insights into netiquette practice in online communication between students and professors in higher education. The findings highlight the importance of understanding and promoting appropriate online communication behaviors to enhance learning experiences and foster positive relationships within virtual learning environments. Despite the varying levels of awareness and adherence to netiquette rules observed among students and faculty, the studies reviewed underscore the significance of targeted interventions and educational programs aimed at improving netiquette practices and promoting responsible online behavior. Moving forward, educational institutions must prioritize integrating netiquette education into curricula and establish clear guidelines for online interactions between students and professors. Longitudinal and comparative research efforts, coupled with qualitative investigations, can further deepen our understanding of the factors influencing netiquette adherence and effectiveness across diverse contexts. By addressing these gaps and challenges, academia can effectively cultivate a culture of digital citizenship and ethical online communication, ultimately enhancing the quality and inclusivity of higher education in the digital age.

6.1 Limitations and Future Directions

The research presented in this systematic literature review on practicing netiquette in online communication between students and professors in higher education is subject to several limitations. Firstly, the included studies vary in methodologies, sample sizes, and populations, which may affect the generalizability of the findings. Additionally, the review predominantly focuses on studies conducted in specific academic disciplines or regions, potentially limiting the breadth of perspectives examined. Moreover, the dynamic nature of online communication and technology may result in evolving netiquette norms and practices, suggesting a need for ongoing research to capture these changes over time. Future research could address these limitations and provide valuable insights into various aspects of netiquette in higher education. Firstly, longitudinal studies could track changes in netiquette practices and perceptions over time, allowing for a more comprehensive understanding of trends and developments. Comparative studies across different academic disciplines, cultural contexts, and age groups could also elucidate the factors influencing netiquette adherence and effectiveness. Furthermore, qualitative research methods, such as interviews or focus groups, could provide deeper insights into students' and professors' motivations, attitudes, and experiences regarding netiquette in online communication. Finally, interventions and educational programs to promote positive netiquette behaviors and foster responsible online communication could be developed and evaluated to enhance digital citizenship and learning experiences in higher education settings.

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Data sharing statement

No additional data are available.

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