

## The Dynamics of Santri Identity in the Digital Era: A Psychosocial Analysis of the Influence of Virtual Toxicity on the Identity Crisis among Alumni of Islamic Boarding Schools

Nahdliyatul Ilmiyah<sup>1\*</sup>, Najwa Adibah Hanum<sup>1</sup>, Auliya Zuhri<sup>1</sup> & Benny Afwadzi<sup>1</sup>

<sup>1</sup>Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia

Corresponding author: [nahdliyatulilmiah8@gmail.com](mailto:nahdliyatulilmiah8@gmail.com)

### Abstract

The advancement of digital technology has heightened the susceptibility of university students who are alumni of Islamic boarding schools (pesantren) to various forms of virtual toxicity, including toxic interactions, online disinhibition, cyberbullying, Fear of Missing Out (FoMO), and the pursuit of social validation. These factors have the potential to precipitate identity crises. This study seeks to examine the dynamics of self-identity among pesantren alumni students in the context of exposure to a toxic digital environment, addressing a notable gap in the literature concerning the psychosocial effects of virtual toxicity on this population, which has been insufficiently explored in prior research. Employing a mixed-methods approach with a sequential explanatory design, quantitative data were gathered via questionnaires administered to 130 university students who are alumni of Islamic boarding schools at higher education institutions in Malang City. Subsequently, in-depth interviews and observations were conducted with six informants to enhance the interpretation of the quantitative findings. The results reveal that virtual toxicity exerts a positive and significant influence on identity crises, with a coefficient of determination ( $R^2$ ) of 0.135 (13.5%), while additional contributing factors are shaped by social and familial environments. Psychosocially, exposure to a toxic virtual environment was found to undermine students' commitment to pesantren values, induce role confusion, and alter their religious orientation. The findings underscore the necessity of reinforcing digital literacy and character education grounded in pesantren values to sustain the resilience of students' identities amidst the rapid evolution of the virtual world.

### Abstrak

Perkembangan teknologi digital telah meningkatkan kerentanan mahasiswa alumni pondok pesantren terhadap paparan virtual toxic, seperti interaksi beracun, online disinhibition, cyberbullying, FoMO, dan kebutuhan akan validasi sosial yang berpotensi memicu krisis identitas. Penelitian ini bertujuan menganalisis dinamika identitas diri mahasiswa alumni pesantren di tengah paparan dunia digital yang toksik sekaligus mengisi kesenjangan kajian mengenai dampak psikososial virtual toxic pada kelompok santri alumni pesantren yang masih terbatas dibahas dalam studi sebelumnya. Penelitian menggunakan mixed methods dengan desain sequential explanatory melalui pengumpulan data kuantitatif menggunakan kuesioner terhadap 130 mahasiswa alumni pondok pesantren di perguruan tinggi Kota Malang, kemudian dilanjutkan dengan wawancara mendalam dan observasi terhadap 6 informan untuk memperkuat interpretasi temuan. Hasil penelitian menunjukkan bahwa virtual toxic berpengaruh positif dan signifikan terhadap krisis identitas dengan nilai koefisien determinasi ( $R^2$ ) sebesar 0,135 atau 13,5%, sedangkan faktor lain dipengaruhi oleh lingkungan sosial dan keluarga. Secara psikososial, paparan dunia virtual yang toksik terbukti melemahkan komitmen nilai kesantrian, memunculkan kebingungan peran, serta menggeser orientasi religius mahasiswa. Penelitian ini berimplikasi pada pentingnya penguatan literasi digital dan pendampingan karakter berbasis nilai-nilai pesantren agar identitas santri tetap kokoh di tengah derasnya arus dunia virtual.

### Keywords:

Virtual toxicity; Identity crisis; Pesantren alumni; Digital literacy; Psychosocial aspects

### Kata kunci:

Virtual toxic; Krisis identitas; Alumni pesantren; Literasi digital; psikososial

**Article History:** Received: 03-12-2025 | Revised: 03-02-2026, 08-04-2026 | Accepted: 03-05-2026

## Introduction

Social media, which originally served as a medium for communication and information dissemination, has undergone a profound transformation into a platform for self-expression and intensive social interaction. These platforms not only facilitate the instantaneous sharing of messages but also influence modes of thinking, behaviour, and the construction of self-identity through diverse forms of digital content, including text, images, and videos. The pervasive use of social media has established it as a novel public sphere that significantly shapes communication patterns, social relationships, and the values emerging within society.<sup>1</sup> Platforms such as TikTok and Instagram have become particularly dominant. Indonesia ranks among the top ten countries with the highest number of active social media users, boasting 108 million active TikTok users and 130 million Instagram users as of January 2025.<sup>2</sup> This substantial figure underscores the powerful normalisation of social media in the lives of younger generations, a trend that continues to accelerate.

Despite its advantages, social media also encompasses negative aspects that must not be overlooked. The digital environment, characterised by its lack of clear boundaries, facilitates the emergence of various forms of virtual toxicity, including toxic interactions, online disinhibition, cyberbullying, Fear of Missing Out (FoMO), and excessive seeking of social validation. The effects of these phenomena often remain unnoticed. As noted by Umami Hasanah, this situation arises from the absence of effective regulation among users, thereby creating opportunities for detrimental behaviours that may induce psychosocial stress and even identity crises in individuals vulnerable to toxic social media exposure.<sup>3</sup>

In this study, the phenomenon of virtual toxicity experienced by university students who are alumni of pesantren is categorised into several typologies, including toxic interactions, fear of missing out (FoMO), cyberbullying, online disinhibition, and validation-seeking behaviour.<sup>4</sup> The most prevalent forms identified in this research are FoMO and toxic interactions, which serve as manifestations of exposure to virtual toxicity. FoMO is a widely observed phenomenon characterised by feelings of anxiety and fear of being left behind by others, or of missing information, activities, or experiences within the digital realm. This condition compels students to continuously monitor social media, increases their dependence on the

---

<sup>1</sup> Betul Keles, Annmarie Grealish, and Mary Leamy, "The Beauty and the Beast of Social Media: An Interpretative Phenomenological Analysis of the Impact of Adolescents' Social Media Experiences on Their Mental Health during the Covid - 19 Pandemic," *Current Psychology* 43, no. 1 (2024): 96–112, <https://doi.org/10.1007/s12144-023-04271-3>.

<sup>2</sup> Rosmawaty Hilderiah Pandjaitan, "The Social Media Marketing Mix Trends in Indonesia for 2024: Communication Perspective," *Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia* 9, no. 1 (2024): 251–69.

<sup>3</sup> Umami Hasanah, "Detoks Hati dari Pengaruh Virtual Toxic dalam Perspektif Al-Quran" (2023).

<sup>4</sup> Amit Sheth, Valerie L Shalin, and Ugur Kursuncu, "Neurocomputing Defining and Detecting Toxicity on Social Media: Context and Knowledge Are Key," *Neurocomputing* 490 (2022): 312–18, <https://doi.org/10.1016/j.neucom.2021.11.095>.

virtual world, and engenders role confusion in daily life.<sup>5</sup> Conversely, toxic interactions encompass aggressive, insulting, or degrading communication within virtual spaces, which can potentially induce stress, anxiety, and diminished self-confidence among students. Such toxic interactions arise due to factors including invisibility, limited accountability, and disinhibition. According to Suwati Pandita et al., virtual invisibility engenders a series of psychological conditions that precipitate harmful virtual interactions rooted in both face-to-face and online behaviours.<sup>6</sup> This perspective aligns with the findings of Muhsin and Muhammad Arif, who assert that invisible identities in the virtual world foster psychological conditions that encourage individuals to express attitudes and speech more freely, often without regard for their moral consequences. These conditions may facilitate communicative behaviours that are detrimental to others.<sup>7</sup>

Both typologies outlined above, namely toxic interactions and FoMO, exert a significant impact on the identity crises and psychosocial stability of pesantren alumni students. This phenomenon arises when individuals encounter confusion in reconciling the values, beliefs, and self-identities previously cultivated within the pesantren environment with the new social realities of higher education institutions, which are characterised by greater heterogeneity and openness. The tension between established values and the demands of the new environment may engender internal conflict, feelings of insecurity, and challenges in maintaining psychological and social equilibrium.

The study conducted by Dimas Novi Saputra, entitled “Analysis of Identity Confusion Among Pesantren Alumni in Universities in Yogyakarta,” demonstrates that alumni of pesantren frequently undergo behavioural changes upon entering university life. The research identifies identity confusion as the principal factor contributing to a decline in adherence to pesantren values.<sup>8</sup> Nevertheless, identity confusion is essentially a developmental phase commonly experienced by adolescents and university students during the process of self-discovery. Consequently, the study conceptualises identity confusion primarily as an internal dynamic arising from the social and cultural transition from the pesantren environment to higher education institutions.

In contrast to previous approaches, the present study does not concentrate on identity confusion as a psychological developmental phenomenon. Instead, it

---

<sup>5</sup> Almira Rahma Fadhila, Najwa Nabila Hermawan, and Cucu Surahman, “Mengungkap Budaya FoMo dan Adiksi Media Sosial: Tanggapan Mahasiswa Muslim di Era Digital,” *Jurnal Kajian Agama Dan Multikulturalisme Indonesia* 7693 (2024): 137–50.

<sup>6</sup> Pandita, Swati, Ketika Garg, Jiajin Zhang, and Dean Mobbs., “Three Roots of Online Toxicity: Disembodiment, Accountability, and Disinhibition,” *Trends in Cognitive Sciences* 28, no. 9 (2024): 814–28.

<sup>7</sup> Muhammad Arif Muhsin, “Kontrol Diri di Media Sosial Perspektif Pemikiran Hermeneutika Hadis Khaled Abou El-Fadl,” *Jurnal An-Nida'* 43, no. 1 (2019): 78–100.

<sup>8</sup> Dimas Novi Saputra, “Analisis Identity Confusion Pada Alumni Pesantren di Perguruan Tinggi Yogyakarta” (Universitas Islam Negeri Sunan Kalijaga Yogyakarta, 2024).

examines external factors that may influence identity dynamics, specifically exposure to a toxic digital environment. Phenomena such as toxic interactions, fear of missing out (FoMO), cyberbullying, digital social comparison, and validation pressure on social media have seldom been investigated in the context of pesantren alumni students. The novelty of this study lies in its endeavour to position the digital environment as a significant variable capable of intensifying psychosocial pressure and affecting the stability of the religious identity of pesantren alumni in the contemporary era. This approach extends prior research by demonstrating that the identity dynamics of pesantren students in higher education are shaped not only by internal developmental factors but also by the digital interaction ecosystem they encounter on a daily basis.

This article addresses two primary research objectives. Firstly, it investigates the impact of virtual toxicity on the identity crisis experienced by pesantren alumni students at universities in Malang City, employing quantitative methods. Secondly, it aims to identify factors that either reinforce or undermine the resilience of these students' identities when exposed to the virtual digital environment, utilising qualitative methods. The study adopts a mixed-methods approach, also described by some scholars as a combined-method approach, which integrates both quantitative and qualitative methodologies. The chosen design for this research is the sequential explanatory model.<sup>9</sup> Quantitative data were gathered via questionnaires administered to 130 pesantren alumni students at universities in Malang City, followed by in-depth interviews and observations involving six qualitative informants to further elucidate the findings. The research population comprised pesantren alumni students enrolled at universities in Malang City, with purposive random sampling applied to students in their third, fifth, and seventh semesters. Data sources included primary data obtained from questionnaires, interviews, and observations, as well as secondary data derived from relevant literature.

The research instruments comprised a virtual toxicity scale and an identity crisis scale, both of which had been validated and tested for reliability using SPSS. Quantitative analyses encompassed descriptive statistics, the Kolmogorov-Smirnov test for normality, linearity assessments, and simple linear regression. Qualitative analyses involved data reduction, data presentation, and the drawing of conclusions.<sup>10</sup> The validity of the qualitative data was enhanced through source and technique triangulation by comparing interview findings, field observations, and quantitative results to assess the consistency of information across sources. Member checking was performed by providing each informant with summaries of their interview responses for verification of accuracy. Furthermore, peer debriefing was

---

<sup>9</sup> Rahmad Justan Margiono Abdul Aziz Sumiati, "Penelitian Kombinasi (Mixed Method)," *Jurnal Ilmiah Multidisiplin* 15, no. 2 (2024): 251-56.

<sup>10</sup> Habibullah, Jumadil Awali, Ikrom Norvaizi, Desy Eka, and Citra Dewi, "Implementasi Mixed Methods dalam Penelitian Pendidikan: Konsep dan Aplikasinya," 2025.

undertaken through discussions with academic supervisors and research colleagues to obtain critical feedback on the analytical process and data interpretation. The findings from both analytical approaches were subsequently integrated to yield a comprehensive and nuanced understanding of virtual toxicity and its impact on the identity crisis experienced by pesantren alumni students.

This study was conducted over a one-month period, commencing on 28 August 2025. The activities undertaken included the development of research instruments, determination of scales, design of the questionnaire, and distribution of the questionnaire to 130 respondents within a one-week timeframe. During the implementation phase, several challenges were encountered, such as difficulties in recruiting suitable respondents, as not all alumni of pesantren were willing to openly discuss their personal experiences concerning identity issues. Another challenge was the limitation of time, as the researchers needed to accommodate academic schedules and the students' commitments, resulting in an extended data collection process.

## Results and Discussion

### *The Impact of Virtual Toxicity on the Identity Crisis Among Pesantren Alumni Students*

This study was carried out at multiple universities in Malang City, encompassing public secular universities, public Islamic universities, private secular universities, and private Islamic universities. Malang City is widely acknowledged as one of Indonesia's principal educational centres and serves as a destination for students from diverse regions, including alumni of Islamic boarding schools (pesantren).<sup>11</sup> The academic environment of universities in Malang City was chosen due to its complex social interactions, encompassing both face-to-face and virtual engagements. Students who are alumni of pesantren represent a significant demographic within universities in Malang City, encompassing a range of higher education institutions, both Islamic and secular. These students exhibit distinctive characteristics, notably the internalisation of religious values, discipline, and pesantren traditions, which they carry into the university setting.<sup>12</sup> The distribution of respondents according to the type and origin of their higher education institutions is detailed in Table 1 below.

**Table 1.** Distribution of Respondents According to the Type of Higher Education Institution of Origin

No	Type of Higher Education Institution Origin	Total (n)	Percentage (%)
1	State University	8	6,2%
2	State Islamic University	105	80,8%

<sup>11</sup> Ida Suryawati and Abdul Gani, "Analisis Faktor Penyebab Perilaku Merokok," *Jurnal Keperawatan Silampari* 6, no. 1 (2022): 497–505, <https://doi.org/10.31539/jks.v6i1.3743>.

<sup>12</sup> Riska Anintyawati, "The Character of The Students in MTs . Al-Mahalli Bantul Yogyakarta (A Comparative Study on Students Staying in Pesantren and Outside Pesantren )" 2, no. 1 (2021): 29–38.

3	Private Higher Education Institution	3	2,3%
4	Private Higher Education Islamic Institution	14	10,8%
Total		130	100%

Based on the table above, the majority of respondents were students from state Islamic universities in Malang City. One contributing factor is that these institutions offer academic values and cultural environments that closely align with the backgrounds of students who are alumni of pesantren. Furthermore, public Islamic universities are geographically and reputationally acknowledged as principal centres of Islamic education in Malang City, thereby attracting a significant number of students with pesantren educational backgrounds.

University life in Malang is inextricably linked to the use of social media. A significant proportion of student interactions have transitioned to virtual environments, encompassing academic activities, social relationships, and entertainment. Incidents of virtual toxicity, including hate speech, cyberbullying, and Fear of Missing Out (FoMO), are increasingly prevalent among university students. This trend aligns with the findings of Hasibuan and Sabaruddin (2025), who observed that intensive social media use exacerbates psychological pressures such as the need for social validation, anxiety, and FoMO, which may ultimately undermine students' self-identity stability.<sup>13</sup> These conditions can affect the identity formation process, particularly for students adapting from pesantren life to the more heterogeneous university environment. Pesantren alumni occupy a vulnerable position as they must reconcile deeply ingrained religious values with a more open digital culture that emphasises freedom. Given these circumstances, Malang City represents a pertinent context for this research. On one hand, it hosts an academic community marked by diverse student backgrounds; on the other, it exhibits a pronounced phenomenon of social media use that may contribute to identity crises among students.<sup>14</sup>

Based on the results of the quantitative analysis employing simple linear regression, the study included 130 respondents, all of whom were either current university students or alumni of pesantren within higher education institutions in Malang City. These participants had experienced varying degrees of exposure to virtual toxicity. The collected data were subsequently analysed to ascertain the extent to which exposure to virtual toxicity influences the identity crisis experienced by pesantren alumni attending universities in Malang City. The analytical procedure commenced with an examination of the relationships between variables through model summary analysis, ANOVA, and regression coefficients.

<sup>13</sup> Sabarrudin Marsal Yunas Muliadi Hasibuan, "Dampak Media Sosial terhadap Kesehatan Mental Remaja: Analisis Temuan Terbaru tentang Kecemasan, Depresi, dan Fomo" 5 (2025): 5722-37.

<sup>14</sup> Fadhilah Zahra Wildafina Riyanti, Erni Dewi, Galih Cipto Raharjo, "Cyberbullying's Forms and Implications Among Students With Pesantren Background and Active Social Media Users," *Universitas Islam Indonesia* 9, no. April (2022): 1-15.

**Table 2.** Results of the Simple Linear Regression Analysis  
Model Summary

Model	R	Rsquare	Adjusted R Square	Standard Error of the Estimate
1	.368	.135	.128	9.33098

Source: Results of Regression Analysis Conducted Using IBM SPSS Statistics Version 25

The results presented above indicate a correlation coefficient (R) of 0.368. The coefficient of determination ( $R^2$ ) was calculated to be 0.135, suggesting that the independent variable (virtual toxicity) accounts for 13.5% of the variance in the dependent variable (identity crisis). These findings corroborate the study conducted by Yudiarso, Jesselin, and Litmantoro (2024), which asserted that cyberbullying and toxic interactions on social media can precipitate psychological disturbances, such as stress and intrapersonal conflict, thereby influencing the development of self-identity.<sup>15</sup>

**Tabel 3.** ANOVA Calculation Results  
ANOVA<sup>a</sup>

Model	Sum of Squares	Df	Mean Square	F	Sig
1 Regression	1741.361	1	1741.361	20.000	.000
Residual	11144.608	128	87.067		
Total	12885.969	129			

Source: ANOVA Calculation Results Using IBM SPSS Statistics 25

Based on the ANOVA results, the calculated F value is 20.000, with a significance level of 0.000, which is less than 0.05. Consequently, the regression model is suitable for predicting the identity crisis variable, indicating that the virtual toxicity variable (X) significantly influences the identity crisis variable (Y).

**Table 4.** Results of the Regression Coefficient Calculations  
Coefficients<sup>a</sup>

Model	Unstandardized Coefficient	Standardized Coefficients		T	Sig
	B	Beta	Std.Error		

<sup>15</sup> Anastasia Jesseline, Stefani Lusita Litmantoro, and Ananta Yudiarso, "Cyberbullying in Social Media" 6, no. 3 (2024): 241-59.

1	(Constant)	21.660	4.794		4.518	.000
	Virtual Toxic	.886	.198	.368	4.472	.000

Source: Regression Coefficient Calculations Utilising IBM SPSS Statistics Version 25

From the coefficients output, the constant term (a) was determined to be 21.660, while the regression coefficient for virtual toxicity (b) was 0.886. This coefficient indicates that for every 1% increase in virtual toxicity, the identity crisis value increases by 0.886 units. The positive value of the regression coefficient signifies a positive relationship between variable X (virtual toxicity) and variable Y (identity crisis).

Based on the results of the simple linear regression analysis, the intercept (a) was determined to be 21.660, while the regression coefficient for the Virtual Toxic variable (X) was 0.886. Consequently, the regression equation can be expressed as follows:

The relationship between the variables is expressed by the equation  $(Y = 21.660 + 0.886X)$ .

The equation indicates that when the regression coefficient of the Virtual Toxic variable is zero, the value of the Identity Crisis variable (Y) is 21.660. The regression coefficient for the Virtual Toxic variable, which is 0.886, is positive, implying that each one-unit increase in Virtual Toxic corresponds to an increase of 0.886 in the Identity Crisis variable.

Based on the significance value reported in the Coefficients table, which was 0.000 ( $p < 0.05$ ), it can be concluded that the virtual toxicity variable (X) exerts a significant effect on the identity crisis variable (Y). Furthermore, the results of the t-test indicate that the calculated t value of 4.472 exceeds the critical t value of 1.979, thereby confirming that virtual toxicity (X) significantly influences the identity crisis (Y). Consequently, these findings statistically substantiate that virtual toxicity has a significant impact on the exacerbation of identity crises. The table below summarises the significance values pertaining to the effect of the independent variable on the dependent variable among 130 respondents, all of whom are pesantren alumni currently enrolled at universities in Malang City.

**Table 5.** Summary of Significance Values

No.	Category Item	Quantitative Data (Percentage %)
1	Exposure to toxic interactions	2,9%
2	Cyberbullying (as victims)	28%
3	Cyberbullying (as perpetrators)	23%
4	Online disinhibition	42%
5	FOMO (Fear of Missing Out)	52%
6	Need for social validation	41%
7	Clarity of identity concept	55%

8	Role confusion	54%
9	Commitment to values and beliefs	50%
10	Value conflict	53%
11	Cross-context identity cohesion	54%

Source: Significance Value Calculations Utilising IBM SPSS Statistics Version 25

The research data were categorised into three sections to facilitate a more comprehensive understanding of the relationship between virtual toxic behaviour and identity crises, as outlined below:

*Firstly*, the extent of exposure to virtual toxicity and the behaviours associated therewith, which encompass: (a) Low overall exposure but high incidence of specific behaviours. Only 2.9% of respondents reported frequently encountering toxic interactions in general. However, when considering more specific moral behaviours, such as cyberbullying, the rate of involvement increased markedly; (b) Dual roles in cyberbullying. Approximately 28% of students reported having been victims, while a further 23% acknowledged having engaged in perpetrating such behaviour. Although many students did not regard their environment as generally “toxic,” they were nonetheless directly involved in harmful conduct, either as perpetrators or victims.

These findings highlight a discrepancy between students’ general perceptions of their digital environment and their actual engagement in cyberbullying behaviours. The low overall exposure rate (2.9%) suggests that the majority of respondents did not perceive their digital space as problematic. However, when the indicators targeted more specific actions, the proportion of involvement as victims or perpetrators increased markedly.

This discrepancy can be elucidated by examining how students interpret the term “toxic.” The term is frequently associated with extreme behaviour or overt conflict. Consequently, more subtle forms of toxicity, such as degrading comments, hate speech, or sarcastic insinuations, are not always recognised as harmful conduct. These findings align with the research of Putri Fajar Ayu Hendrayani, which highlights that low digital literacy and a limited understanding of communication ethics in digital environments may hinder individuals from fully recognising that their actions constitute cyberbullying.<sup>16</sup> Moreover, the tendency to normalise sarcastic or verbally aggressive communication styles has been explored in digital linguistic studies. Research by Subyantoro et al. demonstrated that impoliteness strategies on social media are often employed as expressions of familiarity. This further supports

<sup>16</sup> Putri Fajar Ayu Hendrayani, “Digital Literacy and Online Trust to Avoid Cyberbullying Anonymity Among Twitter Role Players Community,” *Interaksi: Jurnal Ilmu Komunikas* 13, no. 1 (2024): 37-59.

the notion that students may engage in harmful behaviour without categorising it as toxic.<sup>17</sup>

Research conducted by Muhammad Alfarizy et al. further underscores that experiences as either victims or perpetrators entail significant emotional and social consequences. Consequently, the dual involvement identified in this study not only reflects patterns of digital interaction but also elucidates the dynamics of social relationships and the students' need for acceptance.<sup>18</sup> Thus, the discrepancy between perception and experience should not be interpreted as inconsistency in the data; rather, it highlights the complexity inherent in individuals' understanding and reflection upon their digital interactions. These findings are particularly pertinent to discussions of identity crises, as virtual spaces serve not only as channels of communication but also as arenas for the formation and affirmation of students' identities in the digital age.

*Secondly*, the mechanisms that facilitate toxic interactions in the virtual environment are considered. Two factors have been identified as contributing to students' susceptibility to toxic interactions and the development of identity crises. (a) Online disinhibition was reported by 42% of respondents. Nearly half acknowledged that their behaviour in virtual environments differed from that exhibited in real-life contexts. Among pesantren alumni, this may suggest a relaxation of previously upheld behavioural boundaries. Such a phenomenon potentially increases the likelihood of engagement in toxic behaviours. (b) The need for social validation. The prevalence of Fear of Missing Out (FoMO) was observed at 52%, while the need for social recognition was reported at 41%. These elevated levels of FoMO and social validation needs suggest considerable pressure to remain connected and accepted within virtual environments. This finding indicates a positive correlation between FoMO and maladaptive digital behaviours, supporting the hypothesis that social pressures in digital spaces may lead individuals to compromise their personal values. To preserve social connections, some students may even forgo their personal values or emulate harmful behaviours. This situation exacerbates identity conflicts, particularly when the values upheld by pesantren institutions are at odds with the more permissive culture of digital environments.

*Thirdly*, the manifestations of identity crises are evident. Students are presently undergoing a period of intense identity negotiation; on one hand, they strive for self-clarity, while on the other, they encounter various forms of confusion.

---

<sup>17</sup> Subyantoro, Suseno, Zuliyanti, and Shalina Fadilya Diani Putri "Impoliteness Strategy for Cyberbullying in Indonesian on Instagram Social Media," *Kembara: Jurnal Keilmuan Bahasa, Sastra, dan Pengajarannya* 9, no. 2 (2023): 735–49, <http://ejournal.umm.ac.id/index.php/kembar>.

<sup>18</sup> Muhammad Alfarizy, Ummi Yusnita, and Nur Lailatuka, "The Effect of Psychological Crime of Virtual Bullying on Social Media on Victims Under the ITE Law," *Begawan Abioso* 15 (2024), <https://ejournal.hukumunkris.id/index.php/abioso%0AThe>.

**Tabel 6.** Manifestations of Identity Crisis Among 130 Participants

Identity Category	Percentage	Meaning and Interpretation
Clarity of identity concept	55%	More than half of the respondents demonstrate a relatively clear understanding of their own identity, suggesting an ongoing process of identity exploration
Role confusion	54%	A figure nearly equivalent to the level of identity clarity. This suggests the presence of identity duality: while they have a clear sense of who they aspire to become, they remain uncertain about how to reconcile their roles as pesantren alumni, university students, and participants in the virtual world
Value conflict	53%	Denotes a clash between the conservative values instilled by pesantren education and the more liberal values encountered within university settings and digital environments.
Cross-context identity cohesion	54%	stands at 54%, indicating challenges in maintaining a consistent identity across offline and online environments. Additionally, the need for validation (41%) and online disinhibition (42%) further undermine this cohesion.
Commitment to values and beliefs	50%	Stands at 50%, a moderate figure that suggests personal values are not yet firmly established. This finding corroborates evidence of value conflict, which is indicated at 53%.

Source: Results of Regression Analysis Utilising IBM SPSS Statistics Version 25

Overall, the quantitative findings indicate a significant association between virtual toxicity and identity crises among alumni of pesantren institutions. Firstly, regarding the degree of self-reported toxicity, only 2.9% of participants acknowledged frequently experiencing toxic interactions. However, the prevalence of involvement in cyberbullying was comparatively high, with 28% identifying as perpetrators and 23% as victims. Secondly, the primary factors prompting engagement in online interactions were identified as the need for social validation (41%) and the Fear of Missing Out (FoMO) (52%). Thirdly, the impact on identity is evident: the phenomenon of online disinhibition (42%) promotes behaviours that

contradict the values of the pesantren, thereby engendering internal conflicts such as role confusion (54%) and value conflicts (53%).

### **Factors Enhancing and Undermining the Identity Resilience of Pesantren Alumni Students**

Factors that substantially enhance the identity resilience of pesantren alumni students in the face of virtual toxicity and campus environments are deeply grounded in the internalisation of pesantren teachings and the presence of supportive environments. Three principal domains underpin this identity resilience: clarity of self-concept, a strong commitment to values coupled with consistency in worship practices, and cohesion of identity across different contexts. With respect to the clarity of self-concept, some alumni of pesantren experience identity confusion or culture shock during the initial stages of university life. This is particularly attributable to their simultaneous navigation of dual roles: as pesantren alumni and as university students expected to adapt to contemporary developments. Nonetheless, some individuals successfully develop strategies to reinforce their self-identity. One such student, referred to here as (R), from a private secular university in Malang, initially grappled with whether to conceal or assert his identity. Ultimately, he concluded that both identities should be balanced rather than suppressed or diminished.

Meanwhile, commitment to values constitutes the principal form of defence steadfastly maintained by alumni of pesantren. One of the most fundamental values is the avoidance of actions prohibited by religion, such as refraining from engaging in dating relationships. Consistency in religious observance serves as an indicator of identity resilience, as exemplified by (L), who consistently performs worship punctually as a duty, and (F), who emphasised that he continues to pray regularly despite academic commitments, viewing these practices as obligations that do not require external encouragement.

Furthermore, cross-context identity cohesion functions as a factor that supports the maintenance of alumni identity among pesantren graduates. Cross-context identity cohesion denotes the capacity of alumni to sustain consistency in their identities across various contexts, including digital environments. For instance, (A) asserted that there is no discrepancy between the behaviour he exhibits on social media and that displayed in real life.

One female student, referred to as (S), consistently presents herself as a santri on social media by sharing activities and posts related to her life as a pesantren student on platforms such as WhatsApp Stories and Instagram. This is facilitated by her current residence within a student pesantren environment. Similarly, (F) reinforces his personal branding by posting about campus and pesantren activities on Instagram. Regarding adaptation, pesantren alumni such as (R) do not modify their manner of speech or style of dress solely to gain acceptance among their university peers; rather, they make limited adjustments to dress etiquette, for example, by

wearing formal shirts during lectures. Even when confronted with the temptation to use coarse language, (R) exercises self-restraint, mindful of the Qur'anic memorisation he is committed to preserving. This sense of cohesion is further reinforced by the campus environment itself. (S) observed that her identity as a pesantren alumna remains well maintained because her university operates under a pesantren foundation, thereby rendering the adaptation process less challenging. According to (F), universities with Islamic foundations facilitate the preservation of identity, as they tend to be relatively homogeneous and more conducive to upholding pesantren values compared to secular institutions.

Based on qualitative findings derived from in-depth interviews, factors that undermine the identity resilience of pesantren alumni begin to emerge during the transition from the structured environment of pesantren life to the dynamic context of higher education. This transition presents complex adaptive challenges for alumni as they endeavour to reconcile their dual identities as santri and university students. The diminution of identity resilience arises from the difficulty in maintaining their identity as pesantren alumni while simultaneously adapting to the culture and lifestyle of university life, where integration into the digital world frequently engenders discomfort.

In navigating this heterogeneous environment, the vulnerability of pesantren alumni students to diminished identity resilience is precipitated by several factors, including exposure to virtual toxicity, cyberbullying, online disinhibition, fear of missing out (FoMO), the need for social validation, role confusion, and value conflict. One factor contributing to the weakening of identity among pesantren alumni students is exposure to toxic virtual environments, which have the potential to disrupt consistency in values and daily routines. A notable example of such exposure is online gaming, which has been demonstrated to divert students' attention from both their activities and academic responsibilities. This was acknowledged by informant (A), who became addicted to the online game Mobile Legends to the extent of losing track of time. Furthermore, adaptation to social interactions on campus and via social media has exposed students to environments characterised by impolite communication. For instance, informant (F) frequently employed harsh language while playing online games, whereas (A) admitted to using somewhat toxic language when interacting with peers with shared interests.

Online disinhibition has also been identified as a factor undermining the identity resilience of pesantren alumni students, particularly when their behaviour in virtual environments contradicts the values upheld by the pesantren. For example, one participant (F) acknowledged using harsh and vulgar language while playing online games. Initially, he was unaware of this behaviour and regarded it as accidental; however, over time, the habit extended into his interactions with friends. Although he believed it had not become a permanent trait, the use of such language signalled a reduction in self-control during peer interactions.

Another informant, identified as (AI), reported experiencing Fear of Missing Out (FoMO), which he perceived as impacting the resilience of his identity. He felt compelled to adhere to contemporary lifestyle trends, particularly in clothing styles, despite his appearance not fully reflecting the pesantren values he had formerly upheld. Nonetheless, he endeavoured to maintain standards of modesty in his appearance, representing a compromise between his personal values and social expectations.

In addition to the fear of missing out (FoMO), the need for social validation emerged as a significant factor undermining self-identity. As an alumnus of a pesantren, the informant experienced a strong desire to be accepted within the campus social environment. This desire prompted him to modify his lifestyle to conform to that of his peers, to the extent of concealing his pesantren background in order to avoid ridicule or negative judgement. The pursuit of social acceptance also influenced the manner in which he presented his personality on campus. The informant (AI) acknowledged that he tended to alter certain attitudes and behaviours to prevent becoming the subject of mockery. This situation illustrates that the need for recognition and social acceptance may lead individuals to engage in self-adjustment that potentially obscures previously established personal identities.

Another significant factor is the pronounced cultural disparity between the pesantren environment and university life, which frequently gives rise to value conflicts. One of the most notable forms of culture shock is the increased interaction with the opposite sex on campus, an experience that was virtually non-existent within the pesantren setting. Ikhtilath (mixed-gender interaction) became difficult to avoid, as many group assignments necessitated collaborative work. When faced with activities that conflicted with pesantren values—such as a sarong relay competition requiring participants to hold hands with members of the opposite sex—(R) adopted an adaptive strategy by extending his sleeves to avoid direct physical contact. In another instance, (AI), confronted with value differences and believing he should oppose certain practices, chose to remain silent out of concern for opposing the majority.

Within the framework of identity resilience, it was observed that some students retained robust internal defences, manifested through a strong commitment to pesantren values, a clear self-concept, and consistent worship practices. These elements enabled them to preserve identity cohesion despite navigating digital environments characterised by considerable pressure. Nevertheless, this resilience was frequently challenged by exposure to virtual toxicity, cyberbullying, online gaming addiction, and digital social pressures that compelled adaptation to new norms, occasionally at odds with pesantren values. The cultural disparities between campus and pesantren life, including social interactions such as ikhtilath, further exacerbated the internal conflicts experienced by the students. Virtual toxicity not only influences students' digital conduct but also significantly intensifies their

identity crises. These findings underscore the imperative to enhance digital literacy, provide psychosocial support, and establish safe spaces that assist students in sustaining their santri identity amidst the pervasive presence of toxic digital environments.

The dynamics of identity crises within digital environments are intricately linked to the functioning of social media algorithms. Fundamentally, each student inhabits a distinct digital space, as the content presented on their social media feeds is personalised based on their search history, interaction patterns, and individual preferences. This personalisation renders digital experiences highly subjective and unique to each user. Consequently, certain students are disproportionately exposed to specific lifestyle content, elevated social standards, and communication styles that may be characterised by aggression. Prolonged exposure to such content can reinforce tendencies towards social comparison, validation-seeking, or identity modification to conform to the digital contexts they engage with regularly. These observations align with the research of Dean Mulya, which demonstrated that social media algorithms curate content in accordance with users' habits and interests. As a result, individuals receive varied information exposures and frequently encounter similar content repeatedly. Such conditions have the potential to influence how individuals perceive and construct their identities within digital spaces. Therefore, identity crises are shaped not only by overt social pressures but also by the covert digital systems that structure users' experiences.<sup>19</sup>

In relation to this issue, alumni of pesantren are undergoing a critical transitional phase known as late adolescence, typically spanning the ages of 19 to 21, which extends into emerging adulthood, defined as between 18 and 29 years of age.<sup>20</sup> This developmental period is marked by an intense search for self-identity, instability, and a heightened focus on the self.<sup>21</sup> According to Erik Erikson's theory of psychosocial development, individuals in adolescence and early adulthood confront the primary developmental task of resolving identity crises and establishing a distinct identity. Failure to successfully navigate this crisis may lead to role confusion and an unclear sense of identity.<sup>22</sup>

Alumni of pesantren experience a state of crisis as they simultaneously embody two identities: that of pesantren alumni and university students. The transition from the homogeneous and structured environment of pesantren life to the heterogeneous

---

<sup>19</sup> Restu Krisdahyanto Dean Mulya Armanda, Dzakia Afaf, "Filter Bubble dan Echo Chamber : Pengaruh Algoritma Media Sosial terhadap Pola Konsumsi Informasi Mahasiswa Universitas Lampung," *Jurnal Ilmu Komunikasi Dan Sosial Politik* 02, no. 04 (2025): 1124–29.

<sup>20</sup> Revi Yesika et al., "Resiliensi terhadap Quarter Life Crisis Pada Mahasiswa Tingkat Akhir di Medan" 7 (2023): 17270–78.

<sup>21</sup> Diana Putri Arini, "Emerging Adulthood: Pengembangan Teori Erikson Mengenai Teori Psikososial pada Abad 21," *Jurnal Ilmiah Psyche*, n.d.

<sup>22</sup> Izzatur Rusuli, "Psikososial Remaja: Sebuah Sintesa Teori Erick Erikson dengan Konsep Islam," *Jurnal As-Salam* 6, no. 1 (2022): 75–89.

and dynamic context of university life induces culture shock, rendering this period replete with challenges and emotional tension. Factors that undermine identity resilience—such as virtual toxicity, online disinhibition, cyberbullying, and fear of missing out (FoMO)—act as psychosocial stressors that disrupt mental functioning and precipitate psychosocial difficulties. Exposure to virtual toxicity that conflicts with pesantren values, for instance, online gaming addiction which detracts from academic responsibilities, or engagement with content incongruent with pesantren teachings, constitutes an external stressor that challenges students' internalised values.<sup>23</sup> Consequently, external and internal factors are intricately linked in shaping the identity formation process of pesantren alumni. Exposure to toxic interactions, cyberbullying, online disinhibition, FoMO, and the pursuit of social validation may complicate the process of self-discovery and ultimately contribute to identity crises.

*Firstly*, exposure to harmful interactions, such as cyberhate and online hostility, may diminish adolescents' self-confidence. These effects are commonly experienced by victims of behaviours or verbal expressions classified as cyberbullying.<sup>24</sup> Cyberbullying should not be regarded solely as a technological issue but also as an ethical and spiritual concern stemming from a decline in moral awareness within digital communication. The lack of self-regulation in virtual interactions can exacerbate psychological distress and social instability.<sup>25</sup> Individuals who are frequently targeted, as well as those who merely witness harmful interactions, may undermine their own values, thereby increasing the likelihood of experiencing role confusion. This observation aligns with Erikson's theory, which posits that identity diffusion can result from an inability to establish consistent identity commitments.<sup>26</sup>

*Secondly*, as a form of virtual toxicity, cyberbullying exerts considerable psychological effects on its victims. Those affected frequently encounter challenges in sustaining positive personal values and identities due to feelings of shame, depression, and anxiety. Over time, social pressure may result in social withdrawal, thereby exacerbating identity crises.

*Thirdly*, the effects of online disinhibition increase the likelihood of individuals violating social norms and exhibiting aggressive behaviour. In such circumstances,

---

<sup>23</sup> Izzatur Rusuli, "Psikososial Remaja: Sebuah Sintesa Teori Erick Erikson dengan Konsep Islam."

<sup>24</sup> Siti Ina Savira Luthfiyanti Harinsa Putri, "Dampak Psikologis pada Remaja yang Mengalami Cyberbullying Psychological Impact on Teenagers Who Experience Cyberbullying Abstrak," *Character: Jurnal Penelitian Psikologi* 10, no. 01 (2023): 309–23.

<sup>25</sup> Dewi Sartika et al., "Prevention Strategies for Cyberbullying Based on Hadiths: A Thematic Analysis of Hadiths Pertaining to Ethical Communication," *An-Nida' Journal of Islamic Thought* 49, no. 2 (2025): 165–82, <https://doi.org/10.24014/an-nida.v49i2.38192>.

<sup>26</sup> Sebastian Wachs, Michelle F. Wright, and Alexander T. Vazsonyi, "Understanding the Overlap between Cyberbullying and Cyberhate Perpetration: Moderating Effects of Toxic Online Disinhibition," *Criminal Behaviour and Mental Health* 29, no. 3 (2019): 179–88, <https://doi.org/10.1002/cbm.2116>.

value conflicts may arise. An individual's identity may differ between real-life and digital environments, thereby disrupting the cohesion of identity across contexts.<sup>27</sup>

*Fourth*, the Fear of Missing Out (FoMO) exacerbates the social pressure encountered by individuals during the process of identity exploration. When individuals consistently perceive themselves as being left behind in comparison to the experiences of others on social media, they are prone to engage in social comparison. Such comparisons may lead to dissatisfaction with their own value commitments, thereby undermining identity integration and exacerbating identity deficiencies.<sup>28</sup>

*Fifth*, the desire for social validation increases the likelihood that individuals will modify their lifestyles, personal values, and behaviours solely to obtain recognition from others. As a result, the values and beliefs that ought to underpin self-identity become undermined. When identities are formed primarily through external approval, individuals become more susceptible to value conflicts and a diminished clarity of identity.<sup>29</sup>

In this context, the identity resilience of alumni from pesantren is shaped both by the strength of the internal values they have acquired during their time at the pesantren and by the challenges posed by exposure to virtual toxicity. From an internal perspective, students who uphold strong value commitments—such as maintaining appropriate boundaries in interactions with the opposite sex and consistently engaging in religious worship—exhibit greater stability in their identity resilience. This observation is consistent with Erikson's theory, which posits that a robust identity is formed through the internalisation of core values that serve as guiding principles in responding to social change.<sup>30</sup> Accordingly, the reinforcement of religious values education remains essential to enable students to preserve identity consistency within the increasingly heterogeneous university environment. Islamic teachings are particularly pertinent to the psychosocial experiences of university-aged individuals as they navigate their identity formation. This relevance is further heightened in campus settings that require adaptation to rapid modern developments. Consequently, Islamic education is regarded as a fundamental basis for civilisation-building through educational processes rooted in Islamic principles.<sup>31</sup>

<sup>27</sup> Sameer Hinduja and Justin W. Patchin, "Connecting Adolescent Suicide to the Severity of Bullying and Cyberbullying," *Journal of School Violence* 18, no. 3 (2019): 333–46, <https://doi.org/10.1080/15388220.2018.1492417>.

<sup>28</sup> Riska Syahputri Nasution, Sugianto Sugianto, and Budi Dharma, "Perilaku Fear of Missing Out (FOMO) dalam Konsumsi di Kalangan Mahasiswa FEBI UINSU Ditinjau dalam Prespektif Masalah," *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis* 11, no. 2 (2023): 1997–2006, <https://doi.org/10.37676/ekombis.v11i2.6819>.

<sup>29</sup> Julie Jiang et al., "Social Approval and Network Homophily as Motivators of Online Toxicity," *SSRN Electronic Journal*, 2023, 1–28, <https://doi.org/10.2139/ssrn.4614257>.

<sup>30</sup> Nadila Sadinda Hasibuan, Muhammad Ilham, Sri Wahyuni, Khairil Anwar. "Perjalanan Identitas Diri: Eksplorasi Psikososial terhadap Fungsi Mental." *Jurnal Pendidikan Tambusai*, no. December (2024).

<sup>31</sup> Shafira Rahma Amelia Anisatun 'Adilah, Pendidikan Islam dan Pembentukan Identitas Muslim di Era Digital *Muta'alim: Jurnal Pendidikan Agama Islam* 3, no. 4 (2024): 243–54.

Virtual toxicity significantly contributes to identity crises, particularly through phenomena such as cyberbullying, the need for social validation, fear of missing out (FoMO), and online disinhibition. These factors undermine self-regulation, generate discrepancies between online behaviour and the principles upheld by pesantren, and exacerbate role conflicts and identity confusion.<sup>32</sup> The findings suggest that students require comprehensive digital literacy education and psychosocial support to mitigate the risks associated with digital environments and to maintain consistency in their identities across diverse contexts. A crucial element in addressing identity crises is environmental support. Drawing on Erikson's concept of the radius of significant relationships, it is evident that parents, peers, pesantren institutions, and universities play vital roles in reinforcing students' self-confidence and identity stability. Students attending secular universities may require additional support to manage the pressures of adaptation, whereas Islamic-based campuses or student pesantren environments have demonstrated greater efficacy in preserving the santri identity.<sup>33</sup>

This study demonstrates that reinforcing the identity of pesantren alumni necessitates a comprehensive approach encompassing the enhancement of digital literacy, social support, and religious values. Such an integrated strategy is essential to mitigate the adverse effects of the virtual environment and to ensure that students can preserve their identities both in real life and within digital spaces. The incorporation of digital literacy has become an imperative in an increasingly digitalised era, underscoring the importance of integrating comprehensive digital education with Islamic instruction.<sup>34</sup>

This finding aligns with the research conducted by Juan Fabio Veron, which specifically examined adolescents and santri residing within pesantren environments, thereby remaining in homogeneous and controlled social settings.<sup>35</sup> Similarly, the study by Ilmi Amalia et al. highlighted that santri living in pesantren experience identity crises arising from tensions between traditional values and modernity, with the pesantren environment continuing to play a central role in identity formation.<sup>36</sup> However, both studies excluded pesantren alumni, who are individuals in late

---

<sup>32</sup> Yuandina, Shafa, dan Meilanny Budiarti Santoso. "Remaja Sebagai Pelaku Cyberbullying dalam Media Sosial." *Jurnal Penelitian dan Pengabdian Kepada Masyarakat*. 2023. <https://doi.org/10.24198/jppm.v3i1.39558>.

<sup>33</sup> Izzatur Rusuli, "Psikososial Remaja: Sebuah Sintesa Teori Erick Erikson dengan Konsep Islam."

<sup>34</sup> Ahmad Zuhdan Makhluf et al., "Digital Readiness in Islamic Education: A Case Study of Pesantren Assalafiyah Mlangi Sleman, Indonesia" 1, no. 2 (2023).

<sup>35</sup> Juan Fabio Veron et al., "Prosiding Seminar Nasional Manajemen Pengaruh Media Sosial terhadap Pembentukan Identitas Diri Remaja di Era Digital," *Prosiding Seminar Nasional Manajemen* 1, no. 1 (2022): 146–50.

<sup>36</sup> Ilmi Amalia, Jumailatul Rahmi, and Manda Geubrina, "The Identity Crisis of Islamic Boarding School Students in the Flow of Socio-Cultural Change," *Journal of Islamic Religious Education* 9, no. 1 (2025): 77–92, <https://doi.org/10.30762/edudeena.v9i1.4708>.

adolescence transitioning into pluralistic social environments and encountering more complex social dynamics.

At this stage, the values of the pesantren are no longer entirely safeguarded by institutional structures, even for students who continue to reside in pesantren dormitories. This is due to the increased interaction with the open campus environment and the unrestricted use of social media, which diminish the absolute nature of pesantren social control. Adolescents in this phase are also characterised as being in a moratorium period, during which they explore their identities without a firm commitment to any particular identity. Consequently, individuals who lack self-regulation and fail to uphold the pesantren values they have internalised are more likely to experience heightened identity tension.<sup>37</sup>

Previous research conducted by Zuli Maulidati revealed that alumni of pesantren successfully adapted to digital migration and exhibited considerable resilience in new environments. Their effective digital interactions were linked to confidence in digital skills, which in turn fostered more positive self-perceptions. A notable contrasting perspective identified in this study pertains to the methods by which students adapt, including increased independence in problem-solving and overcoming challenges by seeking solutions via Google Search or tutorial videos on YouTube.<sup>38</sup>

Furthermore, research conducted by Mirawati offers a compelling counterargument by demonstrating that santri have developed effective skills and strategies to mitigate the adverse effects of digital challenges, such as FoMO and high social media engagement. The study elucidates that digital challenges, including FoMO as a component of virtual toxicity, have prompted santri to cultivate robust self-management competencies and spiritual resilience. These self-management abilities represent fundamental strengths that contest the assumption that santri are inherently susceptible to identity crises when exposed to virtual toxicity within university settings. It is important to note, however, that such preventative preparation typically occurs prior to entering university life.<sup>39</sup> This study therefore identifies pesantren alumni as a distinctive group characterised by considerable vulnerability alongside a robust capacity for adaptation.

---

<sup>37</sup> Makhluif et al., "Digital Readiness in Islamic Education: A Case Study of Pesantren Assalafiyah Mlangi Sleman, Indonesia."

<sup>38</sup> Zuli Maulidati, "Communications of the Association for Information Systems A Postphenomenological Study of the Digital Experience of Islamic Boarding School Graduates Transitioning to University Education A Postphenomenological Study of the Digital Experience of Islamic B," *Communications of the Association for Information Systems* 55 (2024): 1004–29.

<sup>39</sup> (Mirawati et.al., Self-Management Strategy of Students in Facing Fomo Challenges and Increasing Social Media Involvement in Islamic Boarding." *Nazhruna* 8, no. 1 (2025): 1–16).

## Conclusion

This study emerged in response to the increasing exposure to virtual toxicity, which has the potential to precipitate identity crises among alumni of pesantren, particularly as they enter late adolescence and are no longer protected by the structural environment of the pesantren. The principal findings indicate that exposure to digital environments and campus social dynamics significantly heightens vulnerability to identity-related pressures. Nevertheless, the study also identified internal factors—such as commitment to pesantren values, consistency in religious practices, identity cohesion, and personal principles—that serve as protective mechanisms, helping to maintain the stability of individual identity. These findings underscore the importance of enhancing digital literacy and character mentoring grounded in pesantren values as preventative strategies to mitigate the risk of identity crises in the digital era. Practically, the results may provide a foundation for the development of more effective educational policies, including peer mentoring programmes, the promotion of social media ethics, and the integration of digital literacy informed by pesantren values into student development initiatives within higher education institutions.

Although this study makes a significant contribution to the discourse on the identity of pesantren students within virtual environments, it is subject to several limitations. Firstly, the sample was confined to pesantren alumni currently enrolled at universities in Malang City; consequently, caution must be exercised when generalising the findings to wider populations. Secondly, the research primarily addressed psychosocial dimensions and did not thoroughly investigate the impact of digital algorithmic mechanisms on individual identity formation. Future studies are therefore encouraged to broaden the scope of investigation, adopt a more comprehensive phenomenological methodology, and examine the influence of digital media algorithms, patterns of online interaction, and content preferences on the identity dynamics of pesantren alumni. Additionally, comparative analyses involving respondent groups with diverse characteristics are essential to gain a deeper understanding of the variations in how digital exposure affects identity crises. Such further research is anticipated to enhance both theoretical frameworks and educational practices rooted in Islamic values, thereby addressing the increasingly complex challenges posed by digital transformation.

## References

- Akbar, Rizky, Dwi Alvaridzi, and Vania Ardelia. "Dilema Mahasiswa di Era Digital: Korelasi antara FoMO dan Cyberslacking The College Student Dilemma in the Digital Era : A Correlational Study of FoMO and Cyberslacking Abstrak" 12, no. 01 (2025): 601–10.
- Amalia, Ilmi, Jumailatul Rahmi, and Manda Geubrina. "The Identity Crisis of Islamic

- Boarding School Students in the Flow of Socio-Cultural Change." *Journal of Islamic Religious Education* 9, no. 1 (2025): 77-92. <https://doi.org/10.30762/edudeena.v9i1.4708>.
- Anintyawati, Riska. "The Character of The Students in MTs . Al-Mahalli Bantul Yogyakarta ( A Comparative Study on Students Staying in Pesantren and Outside Pesantren )" 2, no. 1 (2021): 29-38.
- Anisatun 'Adilah, Shafira Rahma AMelia. Pendidikan Islam dan Pembentukan Identitas Muslim di Era Digital Mu ' Tallim : Jurnal Pendidikan Agama Islam Penerimaan Informasi. *Muta'alim: Jurnal Pendidikan Agama Islam* 3, no. 4 (2024): 243-54.
- Arini, Diana Putri. "Emerging Adulthood: Pengembangan Teori Erikson Mengenai Teori Psikososial pada Abad 21." *Jurnal Ilmiah Psyche*, n.d.
- Fadhila, Almira Rahma, Najwa Nabila Hermawan, and Cucu Surahman. "Mengungkap Budaya FoMo dan Adiksi Media Sosial: Tanggapan Mahasiswa Muslim di Era Digital." *Jurnal Kajian Agama Dan Multikulturalisme Indonesia* 7693 (2024): 137-50.
- Habibullah, Jumadil Awali, Ikhrom Norvaizi, Desy Eka, and Citra Dewi. "Implementasi Mixed Methods dalam Penelitian Pendidikan: Konsep dan Aplikasinya," 2025.
- Hasanah, Ummi. "Detoks Hati dari Pengaruh Virtual Toxic dalam Perspektif Al-Quran," 2023.
- Hinduja, Sameer, and Justin W. Patchin. "Connecting Adolescent Suicide to the Severity of Bullying and Cyberbullying." *Journal of School Violence* 18, no. 3 (2019): 333-46. <https://doi.org/10.1080/15388220.2018.1492417>.
- Jesseline, Anastasia, Stefani Lusita Litmantoro, and Ananta Yudianto. "Cyberbullying in Social Media" 6, no. 3 (2024): 241-59.
- Jiang, Julie, Luca Luceri, Joseph Walther, and Emilio Ferrara. "Social Approval and Network Homophily as Motivators of Online Toxicity." *SSRN Electronic Journal*, 2023, 1-28. <https://doi.org/10.2139/ssrn.4614257>.
- Keles, Betül, Annmarie Grealish, and Mary Leamy. "The Beauty and the Beast of Social Media : An Interpretative Phenomenological Analysis of the Impact of Adolescents ' Social Media Experiences on Their Mental Health during the Covid - 19 Pandemic." *Current Psychology* 43, no. 1 (2024): 96-112. <https://doi.org/10.1007/s12144-023-04271-3>.
- Luthfiyanti Harinsa Putri, Siti Ina Savira. "Dampak Psikologis pada Remaja yang Mengalami Cyberbullying Psychological Impact on Teenagers Who Experience Cyberbullying Abstrak." *Character: Jurnal Penelitian Psikologi* 10, no. 01 (2023): 309-23.
- Makhluf, Ahmad Zuhdan, Nazila Khoerunnisa, Siti Nur Rondiyah, and Umun Mu. "Digital Readiness in Islamic Education: A Case Study of Pesantren Assalafiyah Mlangi Sleman , Indonesia" 1, no. 2 (2023).

- Marsal Yunas Muliadi Hasibuan, Sabarrudin. "Dampak Media Sosial terhadap Kesehatan Mental Remaja: Analisis Temuan Terbaru Tentang Kecemasan, Depresi, dan Fomo" 5 (2025): 5722-37.
- Maulidati, Zuli. "Communications of the Association for Information Systems A Postphenomenological Study of the Digital Experience of Islamic Boarding School Graduates Transitioning to University Education A Postphenomenological Study of the Digital Experience of Islamic B." *Communications of the Association for Information Systems* 55 (2024): 1004-29.
- Mirawati, Heru Kurnianto, Tasman Hamami, Fitriah M. Suud. "Self-Management Strategy of Students in Facing Fomo Challenges and Increasing Social Media Involvement in Islamic Boarding." *Nazhruna* 8, no. 1 (2025): 1-16.
- Muhsin, Muhammad Arif. "Kontrol Diri di Media Sosial Perspektif Pemikiran Hermeneutika Hadis Khaled Abou El-Fadl." *Jurnal An-Nida'* 43, no. 1 (2019): 78-100.
- Nadila Sadinda Hasibuan, Muhammad Ilham, Sri Wahyuni, Khairil Anwar. "Perjalanan Identitas Diri: Eksplorasi Psikososial Terhadap Fungsi Mental." *Jurnal Pendidikan Tambusai*, no. December (2024).
- Nasution, Riska Syahputri, Sugianto Sugianto, and Budi Dharma. "Perilaku Fear Of Missing Out (FOMO) dalam Konsumsi di Kalangan Mahasiswa FEBI UINSU Ditinjau dalam Prespektif Masalah." *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis* 11, no. 2 (2023): 1997-2006. <https://doi.org/10.37676/ekombis.v11i2.6819>.
- Pandita, Swati, Ketika Garg, Jiajin Zhang, and Dean Mobbs. "Three Roots of Online Toxicity: Disembodiment, Accountability, and Disinhibition." *Trends in Cognitive Sciences* 28, no. 9 (2024): 814-28.
- Pandjaitan, Rosmawaty Hilderiah. "The Social Media Marketing Mix Trends in Indonesia for 2024: Communication Perspective." *Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia* 9, no. 1 (2024): 251-69.
- Riyanti, Erni Dewi, Galih Cipto Raharjo, Fadhilah Zahra Wildafina. "Cyberbullying's Forms and Implications Among Students With Pesantren Background and Active Social Media Users." *Universitas Islam Indonesia* 9, no. April (2022): 1-15.
- Rusuli, Izzatur. "Psikososial Remaja: Sebuah Sintesa Teori Erick Erikson dengan Konsep Islam." *Jurnal As-Salam* 6, no. 1 (2022): 75-89.
- Saputra, Dimas Novi. "Analisis Identity Confusion Pada Alumni Pesantren di Perguruan Tinggi Yogyakarta." Universitas Islam Negeri Sunan Kalijaga Yogyakarta, 2024.
- Sartika, Dewi, Mochammad Novendri S, Sajida Putri, and Resy Mulyani. "Prevention Strategies for Cyberbullying Based on Hadiths: A Thematic Analysis of Hadiths Pertaining to Ethical Communication." *An-Nida' Journal of Islamic Thought* 49, no. 2 (2025): 165-82. <https://doi.org/10.24014/an-nida.v49i2.38192>.

- Sheth, Amit, Valerie L Shalin, and Ugur Kursuncu. "Neurocomputing Defining and Detecting Toxicity on Social Media: Context and Knowledge Are Key." *Neurocomputing* 490 (2022): 312-18. <https://doi.org/10.1016/j.neucom.2021.11.095>.
- Sumiati, Rahmad Justan Margiono Abdul Aziz. "Penelitian Kombinasi (Mixed Method)." *Jurnal Ilmiah Multidisiplin* 15, no. 2 (2024): 251-56.
- Suryawati, Ida, and Abdul Gani. "Analisis Faktor Penyebab Perilaku Merokok." *Jurnal Keperawatan Silampari* 6, no. 1 (2022): 497-505. <https://doi.org/10.31539/jks.v6i1.3743>.
- Veron, Juan Fabio, Irfan Rizka Akbar, Fakultas Ekonomi, and Universitas Pamulang. "Prosiding Seminar Nasional Manajemen Pengaruh Media Sosial terhadap Pembentukan Identitas Diri Remaja di Era Digital." *Prosiding Seminar Nasional Manajemen* 1, no. 1 (2022): 146-50.
- Wachs, Sebastian, Michelle F. Wright, and Alexander T. Vazsonyi. "Understanding the Overlap between Cyberbullying and Cyberhate Perpetration: Moderating Effects of Toxic Online Disinhibition." *Criminal Behaviour and Mental Health* 29, no. 3 (2019): 179-88. <https://doi.org/10.1002/cbm.2116>.
- Yesika, Revi, Br Hombing, Nenny Ika, Putri Simarmata, and Universitas Hkbp Nommensen. "Resiliensi Terhadap Quarter Life Crisis Pada Mahasiswa Tingkat Akhir di Medan" 7 (2023): 17270-78.
- Yuandina, Shafa, and Meilanny Budiarti Santoso. "Remaja sebagai Pelaku Cyberbullying dalam Media Sosial." *Jurnal Penelitian dan Pengabdian kepada Masyarakat (JPPM)*, no. April (2023). <https://doi.org/10.24198/jppm.v3i1.39558>.