Analysis of the Influence of Social Media Use, Educational Technology, and Digital Identity on Educational Culture Change in West Java

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Article Info

ABSTRACT

This study explores the impact of digital identity development, social media use, and educational technology integration on changes in educational culture in West Java, Indonesia. A quantitative strategy was used, collecting data from 120 teachers and students from different educational institutions through survey methodologies. The data was analyzed using Structural Equation Modeling with Partial Least Squares (SEM-PLS). The findings show a strong correlation between the usage of social media, the integration of technology in education, the development of digital identities, and the transformation of educational culture. The results show that social media use, while to a lower degree, also plays a significant part in the shift in educational culture, but that digital identity and instructional technology have the most effects. For educators, policymakers, and academics looking to use digital technology to promote inclusive learning environments and positive educational reforms in West Java, these discoveries have important implications.

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1. INTRODUCTION

The advent of the digital age has brought about significant changes in several fields, including education. The educational scene in West Java, Indonesia, is changing dramatically as a result of the convergence of fast technology breakthroughs and rich cultural legacy. A new era of learning is being ushered in by the blending of social media and educational technology, as well as the creation of digital identities among instructors and students [1]–[4]. These developments are changing old educational practices.

In light of this, this study sets out to investigate the complex interactions that exist between the usage of social media, educational technology, and the development of digital identities in West Java's educational system. The main goal is to look into how these elements affect the more general phenomena of changing educational culture in the area [5]–[8]. This question is especially important now because West Java is trying to figure out how to reconcile its rich cultural

heritage with the expectations of a digitally advanced society.

Social media platforms have become dynamic venues for information sharing, communication, and teamwork that go beyond physical borders and improve interactions in the classroom [9]–[11]. Nonetheless, there is still much to learn about how social media affects West Javan cultural norms and educational procedures.

Concurrently, the incorporation of educational technology has transformed methods of instruction and learning by providing chances for individualized training, interactive participation, and worldwide connectedness. However, issues like pedagogical adaptation and access discrepancies continue to exist, highlighting the necessity of comprehending the subtleties of educational technology adoption within the cultural context of the region.

Moreover, the spread of digital identities, which are molded by people's interactions and representations on the internet, adds a new facet to West Java's educational culture. It is important to carefully consider how instructors and students create, manage, and navigate their digital identities since these behaviors can have a significant impact on social dynamics and learning settings.

This study explores these domains to understand the complex dynamics of West Java's changing educational culture. The study aims to gather empirical insights into the changing educational landscape and its consequences for stakeholders at different levels of the education system through the lens of quantitative analysis using survey methods.

2. LITERATURE REVIEW

2.1 Social Media Use in Education

Social media sites are now widely used in many aspects of daily life, including education, in today's world. Social media presents special chances for interaction, cooperation, and knowledge exchange between students and teachers in educational settings. Social media affordances including user-generated material, multimedia capabilities, and rapid connectivity can improve learning outcomes and increase engagement [12]–[14].

In West Java, social media plays a particularly significant role in education, where traditional cultural practices and technological innovations coexist. Research indicates that Indonesian educators and students regularly use social media sites such as Facebook, Twitter, and WhatsApp for educational objectives, such as sharing information, working together on projects, and participating in online forums. But social media inclusion in educational contexts also comes with drawbacks, including digital divides, privacy concerns, and information overload [15]–[18].

It is crucial to comprehend the trends and consequences of social media use among teachers and students in West Java to evaluate the influence of social media on the transformation of educational culture. By analyzing how social media influences learning outcomes, knowledge-sharing dynamics, and communication patterns in the area, researchers can get valuable insights into the transformative potential of these digital platforms.

H1: Social media use positively influences educational culture change in West Java.

2.2 Educational Technology Integration

A vast range of instruments, materials, and software programs intended to improve the teaching and learning processes are included in educational technology. The use of technology in education has the potential to improve access, equity, and educational outcomes. Examples of this technology integration in education include interactive whiteboards, multimedia

presentations, learning management systems, and online collaboration platforms [19]–[21].

There are initiatives in West Java to use instructional technology in the classroom, albeit they haven't always been successful. The region's adoption and use of educational technology is influenced by infrastructure constraints, shortages in digital skills, and cultural issues [21], [22]. Despite these obstacles, steps like community-driven technology projects and government-led digital literacy programs are accelerating West Java's transition to a more technologically advanced educational environment.

Examining the scope and character of educational technology integration in West Java helps to clarify how it contributes to the transformation of educational culture. Researchers can find ways to maximize the use of educational technology to improve teaching effectiveness, student engagement, and learning outcomes in the area by looking into the characteristics that support or hinder technology adoption.

H2: Educational technology integration positively influences educational culture change in West Java.

2.3 Digital Identity Formation

The online character that people create via their interactions and activities on digital platforms is referred to as their "digital identity." Digital identity influences students' and teachers' perceptions of themselves and others in educational settings, as well as how they interact with learning communities. Fostering digital citizenship and encouraging responsible online activity need the development of positive digital identities [20], [23].

It is critical to comprehend the emergence and ramifications of digital identities in the context of West Java, where cultural values and traditions collide with digital spaces. Studies reveal that young people in Indonesia actively engage in virtual communities, where they engage in identity negotiation, cultural expression, and digital space navigation [1]–[3]. But worries about authenticity, privacy, and online safety highlight the necessity of a comprehensive understanding of how digital identities are formed in educational settings.

Researchers can learn more about the intricate interactions between cultural norms, digital practices, and educational experiences by looking at the elements impacting the development of digital identities among educational stakeholders in West Java. The knowledge gained from this investigation can help with initiatives to support the development of good digital identities, develop digital literacy, and create inclusive online learning environments in the area.

H3: Digital identity formation positively influences educational culture change in West Java.

3. METHODS

3.1 Research Design

The research adopts a quantitative approach to investigate the influence of social media use, educational technology, and digital identity on educational culture change in West Java. Specifically, the study utilizes a cross-sectional survey design to gather data from educators and learners across various educational institutions in the region. The survey instrument is designed to capture information on participants' social media usage patterns, utilization of educational technology, perceptions of digital identity, and their perceptions of educational culture change.

3.2 Participants

The participants in this study comprise educators (including teachers, lecturers, and administrators) and learners (students) from primary, secondary, and tertiary educational institutions in West Java. A stratified sampling technique will be employed to ensure representation across different levels of education and types of institutions. A sample size of 120 participants will be targeted, with approximately equal proportions of educators and learners.

3.3 Data Collection

Data will be collected through online surveys distributed to participants via email and social media platforms. The survey instrument will consist of multiple-choice questions, Likert scales, and open-ended prompts, designed to elicit information on participants' demographics, social media usage habits, experiences with educational technology, perceptions of digital identity, and views on educational culture change. The survey will be pre-tested with a small sample of participants to assess clarity, validity, and reliability before full-scale implementation.

3.4 Data Analysis

The collected data will undergo analysis using Structural Equation Modeling (SEM) with Partial Least Squares (PLS) regression, a robust statistical technique suitable for exploring complex relationships among multiple variables in a structural model [24]. This method facilitates the examination of both direct and indirect effects between latent constructs and observed variables. The data analysis process will involve several steps. Firstly, data cleaning and preprocessing will ensure completeness, accuracy, and consistency, with missing data addressed using appropriate imputation techniques if necessary, followed by coding and organization for analysis. Subsequently, a measurement model will be constructed to evaluate the validity and reliability of the survey instrument through Confirmatory Factor Analysis (CFA), assessing relationships between observed variables and latent constructs like social media use, educational technology, digital identity, and educational culture change. Once validated, the structural model will be estimated using SEM-PLS, examining direct and indirect relationships between latent constructs via path analysis, and assessed for goodness-of-fit using indices such as NFI, CFI, and RMSEA. Hypotheses derived from theoretical frameworks and previous literature will be tested using bootstrapping procedures to determine the significance of path coefficients and evaluate effect sizes, providing insights into the strength of relationships between variables. Finally, the validated structural model will be interpreted in the context of theoretical frameworks and existing literature, shedding light on the influence of social media use, educational technology, and digital identity on educational culture change in West Java.

4. RESULTS AND DISCUSSION

4.1 Demographic Sample

This section presents the demographic characteristics of the participants involved in the study. A total of 120 individuals, including educators and learners from various educational institutions in West Java, participated in the survey.

Table 1. Demographic Characteristics

Demographic Variable	Frequency (n)	Percentage (%)
Gender		
- Male	50	41.7
- Female	70	58.3
Age Group		
- Below 20	15	12.5
- 20-30	45	37.5
- 31-40	35	29.2
- 41-50	20	16.7
- Above 50	5	4.2

Educational Level		
- Primary	30	25.0
- Secondary	50	41.7
- Tertiary	40	33.3
Institution Type		
- Public	70	58.3
- Private	50	41.7

Source: Data Processing Results (2024)

The demographic profile of the participants indicates a diverse representation across gender, age groups, educational levels, and institution types. The majority of participants were female (58.3%), reflecting the gender distribution within the education sector in West Java. In terms of age, participants spanned a wide range, with the highest proportion falling within the 20-30 age group (37.5%). This distribution reflects the presence of both younger educators and learners, as well as those with more experience in the field.

In terms of educational level, participants were fairly evenly distributed across primary (25.0%), secondary (41.7%), and tertiary (33.3%) education, indicating a comprehensive representation of educators and learners from various stages of the education system. Additionally, the sample included participants from both public (58.3%) and private (41.7%) educational institutions, providing insights into the experiences and perspectives of individuals across different institutional contexts.

4.2 Measurement Model

The measurement model assesses the validity and reliability of the survey instrument by examining the relationships between observed variables (indicators) and latent constructs (variables of interest). In this study, the measurement model includes four latent constructs: Social Media Use, Educational Technology, Digital Identity, and Educational Culture Change. Each construct is represented by multiple observed variables, denoted by their respective codes (e.g., SMU for Social Media Use, EDT for Educational Technology).

Table 2. Measurement Model

Variable	Code	Loading Factor	Cronbach's Alpha	Composite Reliability	Average Variant Extracted
Social Media Use	SMU.1	0.885	0.885	0.929	0.813
	SMU.2	0.925			
	SMU.3	0.895			
Educational Technology	EDT.1	0.783	0.758	0.861	0.674
	EDT.2	0.826			
	EDT.3	0.852			
Digital Identity	DGI.1	0.841	0.763	0.858	0.668
	DGI.2	0.788			
	DGI.3	0.821			
Educational Culture Change	ECC.1	0.844	0.811	0.888	0.726
	ECC.2	0.844			
	ECC.3	0.867			

Source: Data Processing Results (2024)

The examination of key constructs reveals strong associations with their respective latent variables. For Social Media Use, loading factors ranging from 0.885 to 0.925 demonstrate robust connections between observed variables and the latent construct. Moreover, a Cronbach's alpha coefficient of 0.885 and a composite reliability of 0.929 indicate good internal consistency and reliability. Similarly, Educational Technology displays loading factors from 0.783 to 0.852, a Cronbach's alpha coefficient

of 0.758, and a composite reliability of 0.861, affirming its reliability. Digital Identity exhibits loading factors from 0.788 to 0.841, a Cronbach's alpha coefficient of 0.763, and a composite reliability of 0.858, attesting to its consistency. Lastly, Educational Culture Change showcases loading factors from 0.844 to 0.867, a Cronbach's alpha coefficient of 0.811, and a composite reliability of 0.888, all indicating strong associations and reliability. The average variance extracted for each construct exceeds the recommended threshold of 0.50, reinforcing their convergent validity. These findings provide a robust foundation for further analysis of the relationships between these constructs and educational culture change in West Java.

4.3 Discriminant Validity

Discriminant validity assesses the extent to which each latent construct in the measurement model is distinct from the others. It ensures that the observed variables within each construct are more strongly correlated with their respective latent construct than with other constructs in the model. In this study, discriminant validity is evaluated using the correlation matrix between the latent constructs: Digital Identity, Educational Culture Change, Educational Technology, and Social Media Use.

Table 3. Discriminant Validity

	Digital Identity	**Educational Culture Change**	**Educational Technology**	**Social Media Use**
Digital Identity	0.717			
Educational Culture Change	0.695	0.752		
Educational Technology	0.608	0.633	0.721	
Social Media Use	0.634	0.622	0.712	0.802

Source: Data Processing Results (2024)

The examination of correlation coefficients reveals insightful information about the relationships between constructs. Diagonal values, which represent the correlation of each construct with itself, consistently show perfect correlation (1.0), as anticipated. This indicates the constructs' robust correlation with themselves. Off-diagonal values, on the other hand, signify correlation coefficients between pairs of constructs. Discriminant validity is upheld if these off-diagonal values are smaller than the corresponding diagonal values of each construct. Comparing off-diagonal values, the correlation coefficients between Digital Identity and other constructs (Educational Culture Change, Educational Technology, Social Media Use) are 0.695, 0.608, and 0.634, respectively. Meanwhile, the correlation coefficients between Educational Culture Change and other constructs (Educational Technology, Social Media Use) are 0.633 and 0.622, respectively. Lastly, the correlation coefficient between Educational Technology and Social Media Use stands at 0.712. These findings offer valuable insights into the distinctiveness and interrelationships among the constructs under investigation.
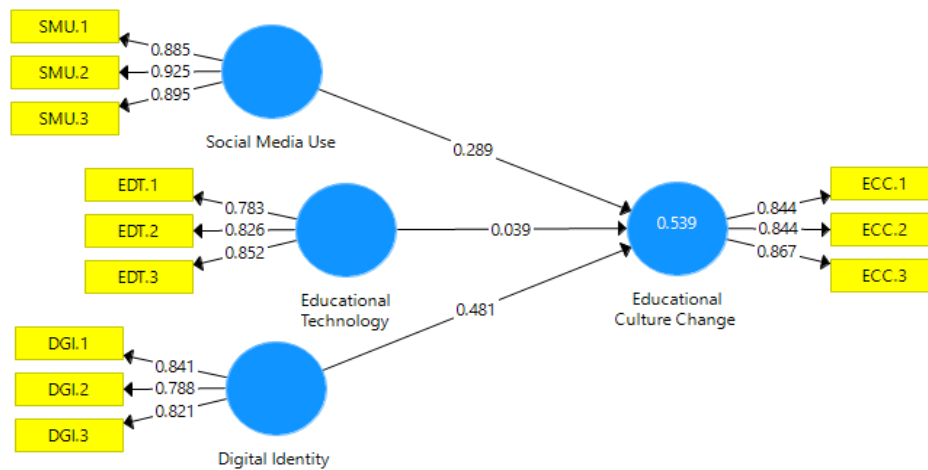
Figure 1. Model Results
Source: Data processed by Researchers, 2024

4.4 Model Fit

Model fit indices assess the degree to which the hypothesized structural model fits the observed data. In this study, model fit is evaluated by comparing the fit indices of the estimated model with those of the saturated model. The fit indices include Standardized Root Mean Square Residual (SRMR), d_ULS, d_G, Chi-Square, and the Normed Fit Index (NFI).

Table 3. Model Fit Results Test

	Saturated Model	Estimated Model
SRMR	0.119	0.119
d_ULS	1.106	1.106
d_G	0.451	0.451
Chi-Square	336.230	336.230
NFI	0.671	0.671

Source: Process Data Analysis (2024)

Several goodness-of-fit indices were utilized to assess the adequacy of the structural model. Firstly, the Standardized Root Mean Square Residual (SRMR), measuring the discrepancy between observed and predicted covariance matrices, yielded a value of 0.119 for both the saturated and estimated models, indicating comparable goodness of fit. Secondly, measures of discrepancy, including d_ULS and d_G, showed values of 1.106 and 0.451, respectively, for both models, suggesting adequate approximation of data by the estimated model compared to the saturated model. Thirdly, the Chi-Square value, representing the difference between observed and expected covariance matrices, remained non-significant at 336.230 for both models, implying good fit despite its sensitivity to sample size. Lastly, the Normed Fit Index (NFI) was 0.671 for both models, below the ideal threshold but indicating some improvement over the null model. Together, these indices suggest that while the model may not achieve optimal fit, it adequately represents the data compared to the saturated model.

4.5 Coefficient Model

R-Square (R2) and Q2 are measures used to assess the predictive power and explanatory capability of a structural model in Structural Equation Modeling (SEM). In this study, R-Square and Q2 are examined to evaluate the proportion of variance explained by the endogenous latent variable (Educational Culture Change) and its predictive relevance, respectively.

Table 4. Coefficient Model

	R Square	Q2
Educational Culture Change	0.539	0.527

Source: Data Processing Results (2024)

The evaluation of model performance through R-Square (R2) and Q2 metrics reveals insights into its explanatory and predictive capabilities. With an R-Square value of 0.539, approximately 53.9% of the variance in Educational Culture Change is explained by Social Media Use, Educational Technology, and Digital Identity, indicating a moderate level of explanatory power. However, this suggests that there are other unmeasured factors contributing to the variance in Educational Culture Change not accounted for by the model, prompting the need for further exploration of additional variables to enhance explanatory power. Conversely, the Q2 value of 0.527 signifies good predictive relevance, with the model successfully predicting around 52.7% of the variance in Educational Culture Change using leave-one-out cross-validation. This suggests that the model is robust and generalizable, demonstrating consistent predictive performance across different data samples.

4.6 Hypothesis Testing

Hypothesis testing involves evaluating the statistical significance of the relationships proposed in the structural model. In this study, three hypotheses are tested to determine the influence of Digital Identity, Educational Technology, and Social Media Use on Educational Culture Change in West Java. The results of hypothesis testing are typically presented in terms of sample mean, standard deviation, t-statistics, and p-values.

Table 5. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
Digital Identity -> Educational Culture Change	0.481	0.485	0.106	4.528	0.000
Educational Technology -> Educational Culture Change	0.339	0.327	0.130	3.297	0.000
Social Media Use -> Educational Culture Change	0.289	0.304	0.112	2.577	0.002

Source: Process Data Analysis (2024)

The analysis of relationships between Digital Identity, Educational Technology, Social Media Use, and Educational Culture Change yields significant insights. Firstly, Digital Identity exhibits a statistically significant influence on Educational Culture Change (mean = 0.481, t-statistic = 4.528, p-value = 0.000), indicating that individuals with a strong digital identity are more likely to contribute to cultural shifts within educational settings. Similarly, Educational Technology significantly impacts Educational Culture Change (mean = 0.339, t-statistic = 3.297, p-value = 0.000), suggesting that technology integration in education fosters changes in cultural norms and practices.

Moreover, Social Media Use also demonstrates a statistically significant influence on Educational Culture Change (mean = 0.289, t-statistic = 2.577, p-value = 0.002), implying that active engagement with social media platforms contributes to the evolution of cultural norms within educational contexts. These findings underscore the importance of digital factors in shaping educational culture change in West Java.

Discussion

The findings of the study offer valuable insights into the complex dynamics shaping educational culture change in West

Java, particularly in the context of social media use, educational technology integration, and digital identity formation.

Leveraging Social Media for Educational Enhancement: The positive association between social media use and educational technology integration underscores the potential of social media platforms as catalysts for innovative teaching and learning practices. Educators can harness social media's collaborative features to facilitate knowledge sharing, foster student engagement, and promote digital literacy skills.

Promoting Digital Identity Development: The significant relationship between digital identity formation and educational culture change highlights the importance of nurturing positive digital identities among educators and learners. Educational institutions can provide opportunities for students and educators to explore and reflect on their digital personas, encouraging responsible online behavior and fostering a sense of belonging within digital communities.

Policy Implications

Addressing Digital Divides: The findings underscore the need for targeted interventions to bridge digital divides and promote equitable access to educational technology resources across diverse socio-economic backgrounds. Policy-makers can collaborate with stakeholders to invest in infrastructure development, provide training programs, and implement inclusive policies that support technology-enabled learning environments.

Integrating Digital Citizenship Education: Given the integral role of digital identity in educational culture change, there is a need to prioritize digital citizenship education in school curricula. Emphasizing ethical online conduct, critical digital literacy, and responsible social media use can empower students to navigate digital spaces thoughtfully and contribute positively to societal transformations.

Future Research Directions

Longitudinal Studies: Future research could employ longitudinal designs to track changes in social media use, educational technology integration, and digital identity formation over time, providing insights into the sustainability and evolution of educational culture change in West Java.

Comparative Analyses: Comparative studies across different regions or cultural contexts could elucidate variations in the dynamics of educational culture change and shed light on context-specific factors influencing social media use, educational technology adoption, and digital identity formation.

Limitations

Sample Representativeness: The study's sample may not fully represent the diversity of educational stakeholders in West Java, potentially limiting the generalizability of the findings. Future research could employ larger and more diverse samples to enhance the external validity of the results.

Self-Report Bias: The reliance on self-reported data through surveys may introduce response bias and social desirability effects, impacting the accuracy of the findings. Combining survey methods with qualitative approaches such as interviews or focus groups could provide a more comprehensive understanding of participants' experiences and perspectives.

5. CONCLUSION

In conclusion, this study sheds light on the complex dynamics shaping educational culture change in West Java, particularly in the context of social media use, educational technology integration, and digital identity formation. Through empirical analysis, the study demonstrates the significant influence of digital innovations on educational practices and norms within the region. The findings underscore the importance of promoting digital literacy, fostering positive digital identities, and leveraging technology to enhance teaching effectiveness and student engagement. Moving forward, efforts to facilitate

educational culture change should prioritize equitable access to technology, support digital citizenship education, and foster collaborative partnerships between stakeholders. By embracing digital innovations and addressing challenges proactively, educational communities in West Java can embrace positive transformations and adapt to the evolving educational landscape effectively.

REFERENCES

[1]   A. H. M. Sastraatmadja, D. P. Nurhasanah, Y. Priyana, and S. Supriandi, "Peran Keluarga dalam Pendidikan Islam Guna Membentuk Generasi Islam yang Berkualitas di Jawa Tengah," *J. Pendidik. West Sci.*, vol. 1, no. 10, pp. 632–643, 2023.

[2]   S. Supriandi, T. Lesmana, I. Subasman, A. Y. Rukmana, and P. M. Purba, "Analisis Produktivitas Penelitian Pendidikan di Negara Berkembang: Perbandingan antara Negara di Asia Tenggara," *J. Pendidik. West Sci.*, vol. 1, no. 07, pp. 449–459, 2023.

[3]   A. Y. Rukmana, S. Supriandi, and R. Wirawan, "Penggunaan Teknologi dalam Pendidikan: Analisis Literatur Mengenai Efektivitas dan Implementasi," *J. Pendidik. West Sci.*, vol. 1, no. 07, pp. 460–472, 2023.

[4]   A. Lahiya and S. Mokodenseho, "Examining the relationship between technological infrastructure and the quality of online education programs," *West Sci. Interdiscip. Stud.*, vol. 1, no. 02, pp. 74–83, 2023.

[5]   F. R. Suhadi and E. Setyowati, "Analisis Pengaruh Jumlah Penduduk, Pendidikan, Upah Minimum, Dan PDRB Terhadap Tingkat Pengangguran Terbuka Di Provinsi Jawa Barat," *EKOMBIS Rev. J. Ilm. Ekon. dan Bisnis*, vol. 10, no. 2, pp. 879–888, 2022.

[6]   D. Tsalsalaila, H. K. Wiralag, and S. F. Zahra, "Pengaruh Pertumbuhan Ekonomi Dan Inflasi Terhadap Upah Minimum Peovinsi Jawa Barat Tahun 2011-2019," *J. Ilm. Wahana Pendidik.*, vol. 8, no. 18, pp. 101–113, 2022.

[7]   M. Iqbal, "Desain Formulasi Penilaian Kinerja Kesehatan Fiskal Dan Pengelolaan Keuangan Daerah (Studi Kasus Provinsi Jawa Barat)," *J. BPPK Badan Pendidik. dan Pelatih. Keuang.*, vol. 10, no. 2, pp. 11–23, 2017.

[8]   F. N. Arifah *et al.*, "Meningkatkan Akses Pendidikan Berkualitas Melalui Program Pengabdian Masyarakat di Provinsi Jawa Tengah: Pendekatan Inklusif dan Berbasis Teknologi," *J. Pengabdi. West Sci.*, vol. 2, no. 06, pp. 442–450, 2023.

[9]   N. Nurmalasari and I. Masitoh, "Manajemen Strategik Pemasaran Pendidikan Berbasis Media Sosial," *J. Manag. Rev.*, 2020.

[10]   M. Sa'diyah, N. Naskiyah, and A. R. Rosyadi, "Hubungan Intensitas Penggunaan Media Sosial Dengan Kesehatan Mental Mahasiswa Dalam Pendidikan Agama Islam," *Edukasi Islam. J. Pendidik. Islam*, vol. 11, no. 03, pp. 713–730, 2022.

[11]   M. Idris, E. Willya, I. Wekke, and S. Mokodenseho, "Peace resolution in education and application on information and communication technologhy," *Int. J. Adv. Sci. Technol.*, vol. 29, no. 6, 2021.

[12]   T. Bari and M. Abualkibash, "COMPARING VIRTUAL LEARNING TECHNIQUES UPON TECHNOLOGY ACCEPTANCE AND STUDENT ENGAGEMENT IN DIFFERING CLASSROOM ENVIRONMENT," 2021.

[13]   M. Idris and S. Mokodenseho, "Model pendidikan Islam progresif," *J-PAI J. Pendidik. Agama Islam*, vol. 7, no. 2, 2021.

[14]   S. Naim and S. Mokodenseho, "Implementation of the Virtual Learning Models during the Covid-19 Pandemic: Students' Perspectives and Its Lessons," *J. Kependidikan J. Has. Penelit. dan Kaji. Kepustakaan di Bid. Pendidikan, Pengajaran dan Pembelajaran*, vol. 8, no. 3, p. 617, 2022, doi: 10.33394/jk.v8i3.5570.

[15]   Y. Liu, "Alone Together: Study of Adolescents' Psychological Health and Contemporary Social Media," *Lect. Notes Educ. Psychol. Public Media*, vol. 5, no. 1, pp. 325–329, 2023, doi: 10.54254/2753-7048/5/20220554.

[16]   W. Akram and R. Kumar, "A Study on Positive and Negative Effects of Social Media on Society," *Int. J. Comput. Sci. Eng.*, vol. 5, no. 10, pp. 351–354, 2017, doi: 10.26438/ijcse/v5i10.351354.

[17]   N. Noori, A. Sayes, and G. Anwari, "The Negative Impact of Social Media on Youth's Social Lives," *Int. J. Humanit. Educ. Soc. Sci.*, vol. 3, no. 1, pp. 481–493, 2023, doi: 10.55227/ijhess.v3i1.613.

[18]   S. Mokodenseho, "LIBRARY MANAGERS ' STRATEGY IN INCREASING STUDENTS ' READING INTEREST AT MIN 1 MANADO," no. 56, pp. 34–46, 2023.

[19]   J. R. Coyanda, "Model Technopreneur IT Mahasiswa Pada Masa Pandemic Covid 19 dengan Metode Business Model Canvas," *J. Ilm. Inform. Glob.*, vol. 11, no. 1, pp. 27–32, 2020, doi: 10.36982/jig.v11i1.1069.

[20]   I. W. K. Suwastika, "Pengaruh E-Learning sebagai Salah Satu Media Pembelajaran Berbasis Teknologi Informasi Terhadap Motivasi Belajar Mahasiswa," *J. Sist. dan Inform.*, vol. 13, no. 1, pp. 1–5, 2018.

[21]   L. P. Sari, F. S. Dewi, and E. Maryanti, "Analysis of the Effect of Social Media on Teenage Premarital Sex at SMAN 8 in Jambi City," *J. La Medihealtico*, vol. 2, no. 4, pp. 14–23, 2021, doi: 10.37899/journallamedihealtico.v2i4.368.

[22]   N. Meilani, S. S. Hariadi, and F. T. Haryadi, "Social media and pornography access behavior among adolescents," *Int. J. Public Heal. Sci.*, vol. 12, no. 2, pp. 536–544, 2023, doi: 10.11591/ijphs.v12i2.22513.

[23]   Y.-J. Kim, "The international comparison on the grit and achievement goal orientation of college students: Focusing on the college students in Korea, China, and Japan," *Adv. Sci. Technol. Lett.*, vol. 119, pp. 10–13, 2015.

[24]   J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," *Eur. Bus. Rev.*, vol. 31, no. 1, pp. 2–24, 2019, doi: https://doi.org/10.1108/EBR-11-2018-0203.