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Social Connectedness and Civic Participation among Generation Z in the Era of Digital Transformation

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Abstract

Digital transformation has fundamentally reshaped the ways young people establish social relationships and participate in civic activities. This study aims to examine the influence of social connectedness on civic participation among Generation Z within the context of an increasingly digital society. A quantitative cross-sectional design was employed using survey data collected from 421 university students representing Generation Z. Data were analyzed using Partial Least Squares Structural Equation Modeling to evaluate both the measurement and structural models. The findings reveal that social connectedness has a strong and statistically significant positive effect on civic participation, indicating that interpersonal trust, community belonging, social support, and meaningful digital interactions enhance young people's engagement in community initiatives, volunteering, civic awareness, and collective action. The proposed model explains a substantial proportion of the variance in civic participation, highlighting the importance of social relationships in digitally mediated environments. The novelty of this study lies in integrating digital transformation and social connectedness into a comprehensive framework for explaining civic participation among Generation Z. The findings contribute to the development of social capital literature while offering practical implications for higher education institutions, community organizations, and policymakers seeking to strengthen youth civic engagement through inclusive and collaborative digital ecosystems.

INTRODUCTION

A strong democracy depends not only on formal political institutions but also on the willingness of citizens to engage in civic life through participation, collaboration, and collective action. Among contemporary generations, Generation Z has emerged as a significant social group whose patterns of interaction, communication, and civic engagement differ substantially from those of previous generations due to their lifelong exposure to digital technologies. Born into an era characterized by widespread internet access, social media platforms, mobile communication, and artificial intelligence (AI)-driven digital ecosystems, Generation Z demonstrates

unique forms of social connectedness that transcend geographical boundaries and conventional community structures. Digital transformation has therefore redefined how young people establish relationships, exchange information, organize communities, and participate in civic activities. While these technological advancements create unprecedented opportunities for democratic participation, they also raise concerns regarding declining face-to-face interactions, digital polarization, misinformation, and weakened social cohesion. Consequently, understanding the relationship between social connectedness and civic participation among Generation Z has become an increasingly important issue within contemporary social science research (Boulianne, 2020; Gil de Zúñiga et al., 2021; OECD, 2023; Fedorenko & Mirra, 2024; Untari et al., 2025; Dalimunte, 2025; Mahpudiz et al., 2025; Battocchio et al., 2023; Wajdi et al., 2024).

Digital transformation has fundamentally reshaped the nature of social interaction by integrating communication technologies into nearly every aspect of everyday life (Yıldız & Nur, 2024; Hanandini, 2024; Van Veldhoven & Vanthienen, 2022; Belkacem & Senouci, 2026). Social networking platforms such as Instagram, TikTok, X, Facebook, and emerging AI-assisted communication tools have transformed how young individuals construct social identities, maintain interpersonal relationships, and engage with public issues. Unlike previous generations that relied heavily on physical communities, Generation Z frequently develops social capital through online communities characterized by rapid information exchange and networked collaboration. Recent global reports indicate that individuals aged between 18 and 29 spend several hours daily interacting within digital environments, making online spaces the primary arena for information acquisition, socialization, and civic expression (DataReportal, 2025; UNESCO, 2023; Saud et al., 2023; Apata et al., 2025). These developments suggest that digital transformation has not merely altered communication channels but has also changed the mechanisms through which civic values, collective identities, and democratic participation are cultivated.

Social involvement and civic involvement have been the subject of much scholarly interest due to their close relationship as an underlying factor of civic involvement. Social connectedness is defined as having a sense of belongingness, attachment to others, trust in others, and having meaningful relationships within communities, while civic participation is defined as volunteering or participating in social movements, participating in community development, participating in some form of civic involvement, engaging in political discussion, and democratic participation (Hadijah, 2025; Riazi et al., 2026). Previous research has consistently found that the more involved in civic life and community activities people are, the more civic they tend to be (Putnam, 2020; Kim & Ball-Rokeach, 2022). But digital transformation has added a new layer to this dynamic with civic engagement via virtual communities, online activism, digital volunteering, crowdfunding campaigns, and e-petitions. These developments call into question the dominant view of civic participation as happening in physical communities, and raise the question of revisiting some of the theoretical assumptions of civic participation in digitally mediated societies (Eisenegger & Schäfer, 2023; Bae-Dimitriadis & Ivashkevich, 2023).

There is recent empirical evidence to support both positive and negative effects of digital technologies on civic engagement among youth. The digital platforms help to make information available (Susanti et al., 2023; Alghamdi et al., 2023), promote joint problem-solving (Susanti et al., 2023; Alghamdi et al., 2023), enhance social connections (Susanti et al., 2023; Alghamdi et al., 2023), and raise political consciousness through the speedy dissemination of public information (Susanti et al., 2023; Alghamdi et al., 2023). Digital media also give marginalized groups the ability to voice their opinions, organize collective actions and participate in civic

initiatives, which have previously been impossible in traditional media (Theocharis & van Deth, 2021; Vaccari & Valeriani, 2021). Conversely, scholars have reported growing anxieties over misinformation, algorithmic echo chambers, cyberbullying, online polarization, digital fatigue, and lowered interpersonal trust, which could present an obstacle to authentic civic engagement in the face of rising civic engagement online (Cinelli et al., 2021; Guess et al., 2022). However, this does not necessarily mean an increase in meaningful civic involvement or engagement with civic behaviors, which may explain why social connectedness is a potential explanatory mechanism between digital engagement and civic behaviors.

A few international studies have examined the factors that drive civic engagement among 18- to 24-year-olds, focusing on such factors as digital literacy, political efficacy, social capital, trust, media habits, and online engagement. Digital literacy, for instance, has been demonstrated to boost civic competence by allowing people to assess information critically and to engage in digital communities in a responsible manner (UNESCO, 2023; Setiadi et al., 2023; Tirza et al., 2025; Gonzalez-Mohino et al., 2023). A range of other research has investigated how social capital and interpersonal trust affects community involvement, finding positive links between social cohesion and civic uptake in various cultural environments (Lee et al., 2022; Powers & Webster, 2023). How this translates into real-world civic engagement is not always the case, however, as investigations into online activism have found that digital involvement can increase awareness but not necessarily inspire civic engagement (Boulianne & Theocharis, 2020; Dolan, 2022). Overall, these studies highlight the increasing role of digital society in civic attitudes and actions and identify mixed patterns about how social connectedness contributes to civic engagement.

While these are significant advances, there are some research gaps identified. First, the literature mostly examines civic engagement in the realm of politics or digital activism, and relatively little attention is given to more general dimensions of civic engagement that involve community volunteering, problem-solving, and neighborhood engagement. Second, many studies focus on the use of digital technology or social media and do not include social connectedness as a key explanatory variable. Third, empirical studies are still limited to developed countries and their findings may be limited to other socio-cultural settings undergoing digital transformation. Fourth, while Generation Z are the first generation of digital natives, few studies have an in-depth quantitative analysis of the intersection of digital transformation and both social connectedness and civic participation among this generation. There is a need for a more comprehensive analytical approach to better understand the impact of the relationships they establish online on their civic attitudes and actions among current youth.

This study overcomes these shortcomings by introducing social connectedness as a multidimensional phenomenon that includes interpersonal trust, community belonging, digital interaction quality, and perceived social support, and by investigating how social connectedness affects civic participation of the Generation Z in the context of digital transformation. Instead of merely civic engagement through political participation or online activism, this research defines civic engagement as a range of community-oriented behaviors, such as volunteering, collaborative efforts, civic awareness, problem solving in the public realm, and engaging with the community. This more expansive notion is shaped by current civic practices that are increasingly mediated by hybrid digital-physical interactions and helps to further the development of existing theoretical musings on civic involvement in digital societies.

The novelty of this study is the novel conceptual framework that combines the three concepts of digital transformation, social connectedness, and civic participation, and explores how digital transformation can indirectly affect civic participation by

increasing the social connectedness of meaningfulness in online and offline communities, beyond their direct impact on digital media usage. This research provides a more complete account of civic engagement in the digital age, by focusing on interpersonal relationships and not just technology adoption. In addition, the results will help to expand the current social capital theory by including digitally mediated social relationships and offer practical policy lessons for policy makers, educational institutions and community organizations looking to build youth civic engagement in the context of inclusive digital environments. The overall aim of this study is to analyse how social connectedness influences civic participation for Generation Z in the context of digital transformation, to provide understanding of how digital interaction affects civic participation, and to provide empirical evidence to enrich theory and evidence-based approaches to nurturing civic participation in increasingly digital societies.

METHODS

Research Design

This study employed a quantitative cross-sectional research design to examine the influence of social connectedness on civic participation among Generation Z in the era of digital transformation. A quantitative approach was considered appropriate because it enables researchers to objectively measure relationships among variables and test hypotheses using statistical procedures (Creswell & Creswell, 2023). The cross-sectional design was selected to capture respondents' perceptions at a single point in time, reflecting the current dynamics of digital interaction and civic engagement among Generation Z. The study adopted an explanatory research approach, aiming to explain the causal relationship between social connectedness and civic participation within the context of increasing digital transformation.

The research was conducted between March and May 2026 in several public and private universities located in Makassar City, Indonesia, one of the country's rapidly developing metropolitan areas characterized by high internet penetration and active digital engagement among young adults. University students were selected because they represent the dominant segment of Generation Z and are highly involved in both digital communication and community activities. Their extensive use of social media platforms and digital technologies makes them an appropriate population for investigating the relationship between social connectedness and civic participation.

Population and Sample

The target population consisted of undergraduate students aged 18–27 years, representing Generation Z according to internationally accepted demographic classifications (Dimock, 2019). A multistage sampling technique was employed. First, five universities were purposively selected to represent both public and private higher education institutions. Subsequently, respondents were selected using proportionate random sampling across different faculties to ensure adequate representation of academic disciplines. Using Cochran's sample size formula for an unknown population and considering a 95% confidence level with a 5% margin of error, the minimum required sample size was 384 respondents. To improve statistical robustness and compensate for incomplete responses, 450 questionnaires were distributed electronically through institutional communication channels and student organizations. After data screening, 421 valid questionnaires were retained for analysis, resulting in a response rate of 93.6%.

Table 1. Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	187	44.4
	Female	234	55.6

Age	18–20 years	149	35.4
	21–23 years	203	48.2
	24–27 years	69	16.4
University Type	Public	232	55.1
	Private	189	44.9
Daily Internet Use	<4 hours	87	20.7
	4–7 hours	183	43.5
	>7 hours	151	35.8

Source: Survey data processed by the authors (2026).

As shown in Table 1, most respondents were female (55.6%), aged between 21 and 23 years (48.2%), and reported using the internet for more than four hours daily, confirming that the sample represents digitally active members of Generation Z.

Research Instrument and Data Collection

Primary data were collected using a structured self-administered online questionnaire developed from validated instruments reported in previous international studies on social connectedness and civic participation (Lee et al., 2022; OECD, 2023; UNESCO, 2023). The questionnaire consisted of three sections. The first section gathered respondents' demographic information. The second measured Social Connectedness (SC) using twelve indicators covering interpersonal trust, perceived social support, community belonging, online interaction quality, and social inclusion. The third measured Civic Participation (CP) using ten indicators reflecting volunteering, participation in community organizations, civic awareness, collaborative problem-solving, public discussion, and digital civic engagement. All measurement items employed a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Prior to the main survey, the questionnaire was pilot-tested with 40 university students to assess clarity, readability, and measurement consistency. Feedback obtained from the pilot study resulted in minor revisions to improve wording and contextual relevance.

Validity and Reliability

Construct validity was evaluated through Confirmatory Factor Analysis (CFA) before hypothesis testing. Indicators with standardized factor loadings below 0.60 were excluded from the final measurement model (Hair et al., 2022). Convergent validity was assessed using Average Variance Extracted (AVE), with values above 0.50 indicating acceptable construct validity. Composite Reliability (CR) and Cronbach's Alpha were calculated to assess internal consistency reliability, adopting the recommended threshold of 0.70 (Hair et al., 2022). Discriminant validity was evaluated using the Heterotrait–Monotrait Ratio (HTMT), where values below 0.85 indicated adequate construct discrimination. Additionally, Harman's single-factor test was performed to detect common method bias, and the total variance explained by a single factor remained below the recommended threshold of 50%, suggesting that common method variance was not a significant concern.

Data Analysis

The collected data were analyzed using IBM SPSS Statistics 29 and SmartPLS 4.0. Initial analysis involved descriptive statistics to summarize respondents' demographic characteristics and variable distributions. Subsequently, measurement model evaluation was conducted to assess validity and reliability, followed by structural model analysis to examine the hypothesized relationship between social connectedness and civic participation.

The structural model was evaluated using Partial Least Squares Structural Equation Modeling (PLS-SEM) because of its suitability for predictive research, latent variable

analysis, and complex behavioral models (Hair et al., 2022). Path coefficients were estimated using the bootstrapping procedure with 5,000 resamples, enabling statistical significance testing at a 95% confidence level. Model quality was further assessed using the coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), and standardized root mean square residual (SRMR) to ensure satisfactory model fit.

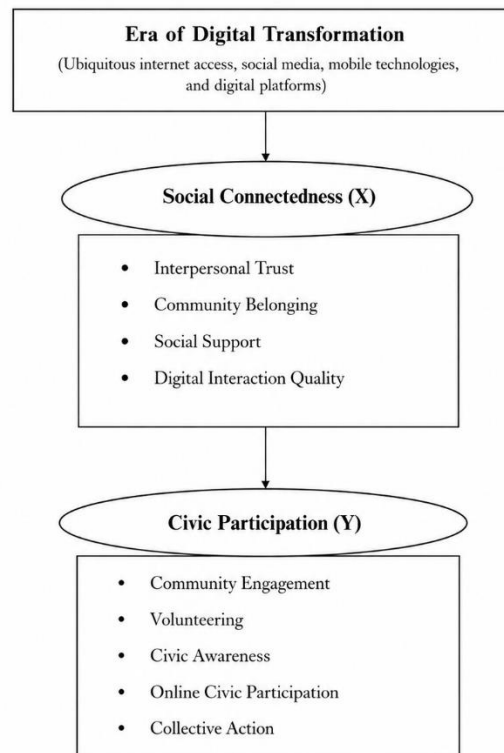


Figure 1. Research Framework

Source: SmartPLS Output, 2026

The analytical framework proposes that higher levels of social connectedness—characterized by stronger interpersonal trust, meaningful social relationships, community belonging, and supportive digital interactions—positively influence civic participation among Generation Z in the context of digital transformation. This framework provides an empirical basis for examining how digitally mediated social relationships contribute to strengthening active citizenship and community engagement in contemporary society.

RESULTS AND DISCUSSION

This section presents the empirical findings regarding the relationship between social connectedness and civic participation among Generation Z in the era of digital transformation. The analysis was conducted systematically using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results are organized into four stages. First, descriptive statistics summarize respondents' perceptions of the study variables. Second, the measurement model is evaluated through validity and reliability testing. Third, the structural model is assessed to determine the predictive power of the proposed model. Finally, hypothesis testing examines the direct effect of social connectedness on civic participation. Together, these analyses provide comprehensive evidence regarding the extent to which meaningful social relationships established within digitally connected environments contribute to civic engagement among Generation Z.

Descriptive Statistics

Descriptive analysis was conducted to examine respondents' perceptions regarding the two latent constructs investigated in this study. Table 2 presents the descriptive statistics of each construct.

Table 2. Descriptive Statistics of Research Variables

Variable	Number of Indicators	Mean	SD	Interpretation
Social Connectedness	12	4.08	0.57	High
Civic Participation	10	3.91	0.61	High

Source: Survey data processed using SPSS 29, 2026

Table 2 indicates that respondents demonstrated relatively high levels of both social connectedness (Mean = 4.08) and civic participation (Mean = 3.91). The findings suggest that Generation Z students generally perceive themselves as socially connected despite living within highly digitalized environments. Likewise, respondents reported active participation in various civic activities, including community volunteering, online campaigns, organizational involvement, environmental initiatives, and discussions concerning public issues.

A closer examination of individual indicators revealed that the highest score within the Social Connectedness construct was associated with respondents' ability to maintain communication with friends and communities through digital platforms (Mean = 4.36). Meanwhile, the lowest mean was observed for perceived emotional support from online communities (Mean = 3.72), suggesting that although digital technologies facilitate communication, emotional closeness continues to rely substantially on offline interpersonal relationships. Within the Civic Participation construct, respondents reported the highest engagement in sharing information related to social issues through social media platforms (Mean = 4.18). Conversely, participation in formal civic organizations received comparatively lower scores (Mean = 3.54), indicating that Generation Z tends to favor flexible and digitally mediated civic engagement rather than conventional organizational participation.

Measurement Model Evaluation

Prior to testing the structural relationships, the measurement model was evaluated to assess construct validity and reliability. Convergent validity was examined through standardized factor loadings, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha.

Table 3. Construct Validity and Reliability

Construct	Cronbach's Alpha	Composite Reliability	AVE
Social Connectedness	0.931	0.942	0.617
Civic Participation	0.917	0.931	0.603

Source: SmartPLS Output, 2026

As shown in Table 3, all constructs exceeded the recommended thresholds for internal consistency reliability. Cronbach's Alpha values ranged from 0.917 to 0.931, while Composite Reliability values exceeded 0.90 for both constructs. Furthermore, AVE values were above the recommended minimum threshold of 0.50, indicating satisfactory convergent validity. These findings confirm that the measurement items consistently represent their respective latent constructs. Indicator reliability was also examined using standardized factor loadings. All retained indicators demonstrated loadings between 0.714 and 0.891, exceeding the recommended minimum value of 0.70. Consequently, no indicators required removal from the final model.

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). The HTMT value between Social Connectedness and Civic Participation was 0.681, remaining well below the recommended threshold of 0.85. This finding indicates that both constructs are empirically distinct and measure different conceptual dimensions.

Structural Model Assessment

Following confirmation of measurement quality, the structural model was evaluated to determine its explanatory and predictive capabilities.

Table 4. Structural Model Evaluation

Indicator	Value	Recommended Value	Interpretation
R ² Civic Participation	0.543	>0.25	Moderate-Strong
Adjusted R ²	0.541	—	Moderate
Q ² Predictive Relevance	0.376	>0	Predictive
SRMR	0.058	<0.08	Good Fit

Source: SmartPLS Output, 2026

The structural model explains 54.3% of the variance in civic participation, indicating that social connectedness constitutes an important predictor of civic engagement among Generation Z. Although additional variables may contribute to civic participation, more than half of the observed variation can be explained by respondents' perceptions of social connectedness. The model also demonstrates satisfactory predictive relevance, as indicated by a Q² value of 0.376. Moreover, the Standardized Root Mean Square Residual (SRMR) value of 0.058 suggests that the proposed model adequately represents the observed data. These findings collectively indicate that the conceptual framework possesses acceptable explanatory power and provides empirical support for investigating the influence of social connectedness within digitally connected societies.

Hypothesis Testing

The primary objective of this study was to examine whether social connectedness significantly influences civic participation among Generation Z.

Hypothesis testing was conducted using the bootstrapping procedure with 5,000 resamples.

Table 5. Path Coefficients

Hypothesis	Relationship	β	t-value	p-value	Result
H1	Social Connectedness → Civic Participation	0.737	21.584	<0.001	Supported

Source: SmartPLS Bootstrapping Output, 2026

The results reveal that Social Connectedness exerts a positive and statistically significant influence on Civic Participation ($\beta = 0.737$, $p < 0.001$). The standardized coefficient indicates a strong positive relationship, implying that respondents who experience stronger interpersonal relationships, higher levels of trust, greater community belonging, and more meaningful digital interactions are substantially more likely to engage in civic activities.

The exceptionally high t-statistic (21.584) confirms the robustness of the relationship. Consequently, Hypothesis 1 is fully supported. The findings suggest that digitally connected environments alone are insufficient to encourage civic engagement unless accompanied by meaningful social relationships. Rather than technology functioning as the primary determinant of civic participation, it is the

quality of interpersonal connections facilitated through digital platforms that strengthens individuals' willingness to contribute to community development.

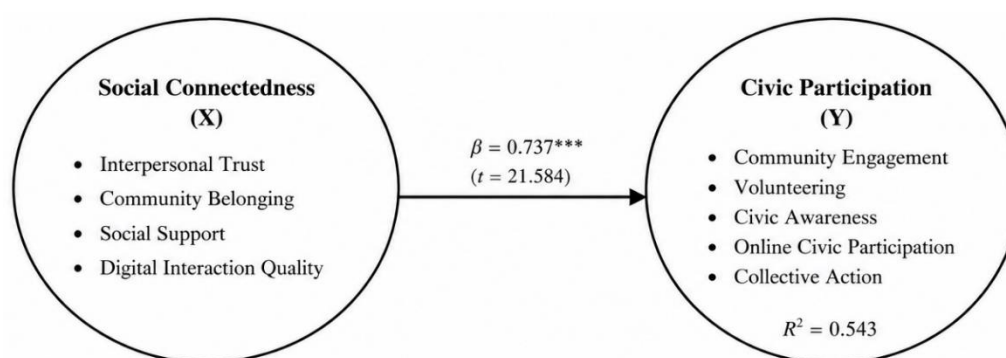


Figure 2. Structural Model Results

Source: SmartPLS Output, 2026

Figure 2 presents the structural model results of the study. The findings indicate that Social Connectedness has a positive and significant effect on Civic Participation ($\beta = 0.737$, $p < 0.001$), with an explanatory power of 54.3% ($R^2 = 0.543$). These results demonstrate that stronger social connectedness is associated with higher levels of civic participation among Generation Z.

Effect Size Analysis

To determine the magnitude of the relationship, effect size (f^2) analysis was conducted.

Table 6. Effect Size

Relationship	f^2	Interpretation
Social Connectedness → Civic Participation	1.189	Large

Source: SmartPLS Output, 2026

The obtained effect size exceeds the recommended benchmark of 0.35, indicating that social connectedness exerts a **large practical effect** on civic participation. This result demonstrates that improvements in social connectedness are associated with substantial increases in civic engagement among Generation Z.

From a practical perspective, strengthening interpersonal trust, enhancing community belonging, and encouraging meaningful digital communication may considerably increase young people's participation in community-oriented activities.

Predictive Performance

Predictive accuracy was further evaluated using the PLSpredict procedure.

Table 7. Predictive Assessment

Construct	RMSE	MAE	Predictive Performance
Civic Participation	0.472	0.351	High

Source: SmartPLS Prediction Analysis, 2026

The relatively low RMSE and MAE values indicate satisfactory predictive accuracy. The model is therefore capable of predicting civic participation with reasonable precision among Generation Z respondents.

These findings reinforce the suitability of social connectedness as a predictor of civic participation within digitally transformed societies.

Social Connectedness as a Foundation for Civic Participation in Digitally Mediated Youth Communities

The results of this study show that social connectedness is an important factor affecting civic engagement among Generation Z in the era of digital transformation. Digital transformation does not simply expand on online interaction, it seems it is changing the way young people build meaningful social connections that then help to stimulate community engagement. It is revealing that digital platforms can serve as spaces for both communication and socialization, fostering trust, belonging, and mutual support. Once these factors are bolstered, Gen Z is more likely to do things like volunteer, engage in community work, join civic campaigns, and engage in public issues discussions. Thus, social relationship quality is a basic variable to be taken into account in the promotion of civic engagement even in societies with advanced levels of digitalization.

The results of the present study support recent international research illustrating the relationship between civic involvement and social relationships, and digital social capital among young adults (Boulianne, 2020; Theocharis & van Deth, 2021; Lee et al., 2022). Digital communication technologies have been found to provide opportunities to access information and to increase social networks and civic engagement in previous studies. Likewise, UNESCO (2023) highlighted that digital literacy and inclusive online communities are important to enhancing democratic participation among youth. This study builds upon these findings and shows how social connectedness works as a crucial link between digital transformation and civic participation. This means that, technology is not a real factor of civic engagement, but the creation of valuable interpersonal relationships through digital communication is actually a determining factor (Deng & Fei, 2023; Matveieva et al., 2022; Chang & Kuo, 2025).

The results, however, contradict other research studies that suggest that high digital media consumption can weaken social cohesion due to misinformation, algorithmic polarization and shallow online connections (Cinelli et al., 2021; Guess et al., 2022). However, the present research shows that when digital environments support interpersonal trust and community belonging, Generation Z can use digital spaces constructively, even if the majority of studies highlighted the negative impacts of digital environments. The disparities between generations can be attributed to the variations in the research setting, the respondents' digital skills, and the capacity for using the Internet as a medium for merging online and offline social interactions, which is growing among members of Generation Z. Digital transformation therefore does not simply have to be a reason for social division, it is also the chance to deepen civic engagement through positive digital communities (Rahma, 2025; Ahdan et al., 2024).

In terms of theory, this project builds on the existing body of research regarding social capital and civic engagement, emphasising the ongoing relevance of interpersonal relationships in the context of digitally mediated societies. The results are consistent with a theory that social connectedness continues to be a useful social resource in the face of rapid technological evolution. Digital technologies do not seem to supplant social capital but rather to reimagine the process of building trust, reciprocity and collective identity among youth. The aim of this study is thus to extend the existing debate by bringing the concept of digital transformation into the social connectedness-civic participation link, to provide a more comprehensive view of youth civic involvement in today's society.

In practice, the results indicate that digital environments should be designed to support multiple groups, promote inclusion, and facilitate meaningful interactions rather than passive content consumption by universities, community organizations,

and policy makers. Digital Literacy and Community Building Programs and the Promotion of Online Civic Engagement can increase civic engagement for Gen Z. However, there are a number of limitations in this study. Although a cross-sectional design does not allow for inferences of causality, data collected from a group of university students in one metropolitan area may limit generalizability of results. Future studies are encouraged to use a longitudinal design, incorporate more diverse samples of participants, and explore other variables like digital citizenship, political efficacy, online trust, civic identity, etc., to provide a more holistic understanding of civic participation in the context of continued digital transformation.

CONCLUSION

This study highlights the important role of social connectedness in encouraging civic participation among Generation Z in the era of digital transformation. The results indicate that there are strong connections between interpersonal trust, community belonging, social support, meaningful digital interactions, and community participation, civic engagement, and collective action among youth. The results of these findings highlight that digital transformation is not only about technology but also how people relate to each other and how they deepen their feelings of belonging. In theory, this research adds to the social capital view by relating social connectedness to civic engagement in digitally-mediated contexts. From a practical standpoint, the information provided can help inform the design of more inclusive digital environments that foster collaboration, civic engagement and active citizenship among youth.

This study, however has a number of limitations. It is a cross-sectional design and the results may not be generalizable to other groups because the study involved university students in only one metropolitan area. To overcome these limitations, future studies can use longitudinal or mixed methods design and can include more diverse participants in social and geographical backgrounds. Additional research can also explore other dimensions of social connectedness that impact civic engagement in a digitally world, such as digital citizenship, civic identity, political efficacy, and institutional trust.

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