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Analyzing the extent of internet use for political information consumption among pre-service teachers at a South African open distance and e-learning institution

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ABSTRACT

This research examines the extent and frequency of Internet use for political information among pre-service teachers at a South African Open Distance and e-Learning (ODeL) institution. Although the use of digital tools in political communication and education is increasing, there is still a lack of empirical studies on how pre-service teachers at ODeL institutions consume political information. The present study fills this gap in the extant literature by examining how pre-service teachers use the internet to access political information at a South African ODeL institution and the implications for civic education, digital inclusion, and teacher education. A total of 2,423 participants completed a structured questionnaire that included Likert-scale items. Results indicate that more than 58% of respondents utilized the Internet at least occasionally for political information, while only 3% to 5% reported daily or near-daily usage. Chi-square tests indicated a statistically significant association between gender and political information consumption ($\chi^2 = 13.03$, p = 0.0046), with male students exhibiting higher levels of engagement. No significant differences were observed across age groups (p = 0.255). The findings highlight the irregular patterns of online engagement with political information among ODeL students and emphasize the necessity of incorporating digital citizenship education in ODeL modules, enhancing internet access, and tackling gender disparities in digital political participation.

Contribution/Originality: This study contributes to the existing literature with new empirical data revealing the pre-service teachers' political information consumption and their online political behavior at a South African ODEL institution. The study is one of the few to have integrated three distinct yet complementary theories to analyze the consumption of political information.

1. INTRODUCTION

This study seeks to deepen the understanding of how the internet may influence the patterns of political information consumption among preservice teachers at the Open and Distance eLearning (ODeL) institution in South Africa. There is no gainsaying the fact that the way people obtain and interact with political information has drastically changed over time, given the rise and spread of digital technology (Boulianne, 2015). This is true, as the Internet now serves as a strong force, providing a platform particularly for political activism, engagement, and news consumption among the teeming youths and students (Boulianne, 2015; Vaccari & Valeriani, 2021). As early adopters of digital technologies, higher education students are generally recognized as being knowledgeable and capable of driving the use of these digital platforms for political engagement. However, the extent and nature of student

involvement with these platforms considerably differ based on personal skills, socioeconomic status, and institutional peculiarities (Kahne & Bowyer, 2017; Theocharis, Lowe, Van Deth, & García-Albacete, 2015). The institutions that offer Open Distance and e-Learning (ODeL) are indeed imperative to increasing postsecondary education access in the Republic of South Africa. This is because ODeL institutions have the capacity to address the educational needs of a broad spectrum of students, especially those who have been disadvantaged by persistent infrastructure issues, including weak Internet connectivity, highly expensive data subscription plans, and digital illiteracy (Czerniewicz, 2018).

Students in ODeL institutions, compared to their peers at contact-based universities, might have a distinct experience with their involvement with digital technologies. Pre-service teachers within ODeL environments tend not only to interact with political information for their own personal development but also to influence future civic and political engagements through their classroom instructions. It is, therefore, important to understand how they consume political information when engaged with the Internet from an educational and democratic standpoint. Although the use of digital tools in political communication and education is increasing, there is still a lack of empirical studies on how pre-service teachers at ODeL institutions consume political information. The present study fills this gap in the extant literature by examining how pre-service teachers use the Internet to access political information at a South African ODeL institution and the implications for civic education, digital inclusion, and teacher education.

The rest of this paper is structured as follows: research questions, theoretical lens and literature review, methodology, findings, conclusion, practical implications of the study, the study's limitations, and suggestions for future research.

1.1. Research Questions

RQ#1: Have pre-service teachers at a South African Open Distance and e-Learning institution engaged in consuming political information through the Internet?

RQ#2: In what ways do pre-service teachers frequently engage with political information online across different time intervals?

RQ#3: In what ways does the frequency of Internet use for consuming political information significantly differ based on demographic variables such as gender and age group?

2. THEORETICAL LENS AND LITERATURE REVIEW

This section presents the theoretical lens and relevant literature on which the study's research questions and objectives are extensively analyzed and discussed.

2.1. Theoretical Lens

This study is premised on the Uses and Gratifications Theory (UGT), with support from elements of Media Dependency Theory and the Digital Literacy Model, to achieve the goal of understanding motivations, behaviors, and capacities related to political information consumption among pre-service teachers in an Open Distance and e-Learning (ODeL) context.

UGT is suitable as a theoretical framework for this study because its argument helps to understand pre-service teachers' engagement with the Internet at a South African Open Distance and e-Learning (ODeL) institution for fulfilling their cognitive, affective, and social needs, particularly through the consumption of political information. UGT posits that individuals are active media users who deliberately select content that satisfies specific personal or social gratifications, such as acquiring knowledge, reinforcing identity, connecting with others, or seeking entertainment (Rubin, 2009). This theory emphasizes user agency, framing pre-service teachers as intentional consumers who navigate digital spaces to engage with political information in ways that align with their emerging professional and civic identities. While traditionally applied to television and print media, the theory's principles are

increasingly relevant in digital contexts, highlighting the importance of understanding how digital media influence perceptions and behaviors among future educators (Blumler & McQuail, 1969). UGT's relevance has expanded with the rise of digital and interactive platforms (Ruggiero, 2000). However, its core limitation lies in its underemphasis on structural barriers, such as unequal access to technology and varying levels of digital competence, which may restrict how gratifications are pursued, especially in a socioeconomically stratified educational landscape like South Africa's (Katz, 1987; Ng, 2012).

Thus, the study's integration of the Media Dependency Theory (MDT) and Digital Literacy Theory (DLT) as complementary lenses aims to address these contextual gaps. MDT posits that individuals' dependence on media for information, particularly during times of social or political change, increases the media's influence on their attitudes and behaviors (Ball-Rokeach & DeFleur, 1976). In an ODeL environment, where students rely on online platforms for civic learning, MDT helps explain how pre-service teachers' sustained exposure to political information can shape their political engagement and socialization. Concurrently, DLT, particularly as conceptualized by Ng (2012), extends this perspective by addressing the technical, cognitive, and socio-emotional competencies required to critically engage digitally with political information. It acknowledges that students must not only access information but also evaluate its credibility and navigate it ethically. However, in the context of South Africa's persistent digital inequalities, DLT exposes a critical challenge: the assumption of uniform digital competence is often unrealistic. Many ODeL students face inconsistent connectivity, high data costs, and limited exposure to civic media, highlighting that digital literacy is unevenly distributed (Prinsloo & Walton, 2008; Van Deursen & Van Dijk, 2014). In sum, these theories provide a nuanced understanding of the individual's motivations, structural dependencies, and skill-based constraints that shape how pre-service teachers consume political information online.

2.2. Empirical Studies on Internet Use

The Internet, which is a worldwide network of computer connections, enables nearly instantaneous access to and distribution of information (Deniz & Geyik, 2015; Ruzgar, 2005). At one point, its popularity was limited to the scientific community, and it was first created by the US Defense Department (Cheung & Huang, 2005). Globally, the Internet has emerged as a key tool for knowledge sharing and information gathering (Unsal, Yalcin, & Yalcin, 2008). For the majority of students in higher education globally, using the Internet has become a way of life (Deniz & Geyik, 2015). According to Deniz and Geyik (2015), a number of scholars have directed their research efforts toward the utilization of the Internet and its practical applications in daily life. For instance, Dholakia (2006) reports that high-income nations have gender disparities among Internet users. In contrast to nations with higher per capita incomes, his research revealed that a greater percentage of women were Internet users. To demonstrate this, Dholakia (2006) cites the fact that Japan has a higher percentage of female Internet users than Singapore in Asia, and Sweden has a higher percentage of female users than lower-income nations like Italy in Europe. Rosales (2001) applies the expectancy-value theory to investigate why 357 students at Southern Illinois University in the US used the Internet. According to his findings, students' motivation to use the Internet increased with their level of experience.

Using two Internet surveys, Bonfadelli (2002) carried out a theoretical and empirical investigation into the Internet and knowledge gaps in Switzerland, revealing a double digital divide. According to the study, 10.8% of the Swiss participants who were 14 years of age or older had access to and used the Internet at least a few times each month. Comparable numbers for Germany and Australia, according to the author, were far lower at 6.5 percent and 5 percent, respectively. Regarding age and gender disparities, Bonfadelli (2002) asserts that older adults and women appear to attach only minor personal benefits to the Internet, while those with higher levels of education demand greater satisfaction from the Internet and expend more mental energy before using it. According to Bonfadelli (2002) research, men in Switzerland use search engines more frequently than women to obtain up-to-date and historical information from online newspapers. This runs counter to Dholakia (2006) figures, which show that women in the

US access and use the Internet at a higher rate than men. Another study supports this by showing that men spend more time online than women do on average (Liff & Shepherd, 2004).

Ngulube (2010) study investigates internet use among students of St. Joseph's Theological Institute in South Africa. The author used a survey design and in-depth interviews to provide answers to the study's research questions, one of which was to ascertain the Internet use patterns among students. The study reports that 52.3 percent of the respondents used the Internet, while the remaining 47.7 percent did not. Of the number of students reportedly using the Internet, almost half (47.1%) confirmed that they used the Internet for educational purposes (Ngulube, 2010). Thus, there is no report of Internet use for political information consumption. Salubi and Muchaonyerwa (2018) also conducted a study in South Africa using a survey design to collect both quantitative and qualitative data from 390 undergraduate students on their Internet use at the University of Fort Hare and Nelson Mandela University. Their findings indicate that most of the students (72.3%) used the Internet daily, as opposed to the study by Adekunmisi, Ajala, and Iyoro (2013), which stated that most students (70%) in a Nigerian university used the Internet weekly because of the high cost of Internet access.

2.3. Internet Use for Consumption of Political Information

The proliferation of digital technologies has significantly reshaped how individuals engage with political content. Across the globe, the Internet has emerged as a key medium through which citizens, especially youth and students, access, interpret, and disseminate political information (Boulianne, 2015; Vaccari & Valeriani, 2021). This shift is particularly relevant in the context of higher education, where students often represent politically active and technologically savvy populations (Loader, Vromen, & Xenos, 2014).

There have been some varied patterns of the frequency, purpose, and impact of online political information consumption documented in empirical research. In some instances, research argues that students not only need to stay informed by using digital platforms but also by ensuring participation in discussions, mobilizing support, and forming political identities (Bossetta, Vreese, & Aalberg, 2018; Kahne & Bowyer, 2017). However, the nature and depth of engagement often vary based on access to digital resources, digital literacy levels, and socio-political context (Theocharis et al., 2015). The extent to which different populations use the Internet for consuming political information is the focus of some empirical studies. In the United States, Dimitrova, Shehata, Strömbäck, and Nord (2014) found that university students' Internet use was strongly correlated with their political knowledge and discussion, especially through interaction with social media and news websites. In a similar vein, another study's findings indicate that frequent consumption of online news strengthens the political interest of young people (Shehata & Strömbäck, 2011). Wang and Meng (2022) examine the Internet usage behavior of Chinese urban netizens from the perspectives of Internet involvement and information consumption, using data from the 2015 and 2018 waves of the China Urban Governance survey. These researchers also compare the impacts that different Internet-use modes have on conventional and unconventional political participation. They found that Chinese urban netizens used the Internet for the consumption of social and political information rather than for entertainment purposes.

Kaye and Johnson (2004) study targets 442 politically interested Internet users by posting an online survey on the World Wide Web during the two weeks before and the two weeks after the 2000 presidential election in the United States. Kaye and Johnson (2004) examine the Internet users' motives for using the Web, electronic mailing lists, bulletin boards, and chat rooms for political information. They also investigate the extent to which Internet gratifications are predicted by political and demographic factors as well as by Internet experience. Their findings report that almost two-thirds (64.2%) of the respondents claimed that their political involvement has increased since becoming Internet users. With the increasing development of microblogs, WeChat, TikTok, and other internet social platforms, netizens can obtain information, discuss issues, and consume entertainment more easily through the internet, and the government can achieve more effective social governance with the aid of internet technology (Meng & Zhang, 2018; Zheng, 2007).

While some studies argue that increased use of the internet does not necessarily mean a decrease in the amount of time that an individual has available for public life, because with the development of social media, people are increasingly expressing, sharing, and discussing their views on public affairs online (Bimber, Cunill, Copeland, & Gibson, 2015; Chadwick, 2006; Haynes & Pitts, 2009; Wang & Meng, 2022). Others submit that internet use does not necessarily lead to the need for entertainment because the low-cost and time-efficient nature of internet communication facilitates access not only to entertainment news but also to the dissemination of social and political information (Bimber, 2001; Kang & Gearhart, 2010; Wang & Meng, 2022). In the South African context, Bosch (2017) explored how youth engaged with online political discourse via platforms like Twitter, emphasizing its dual role as both a source of news and a space for civic identity formation. These findings are echoed by Mutsvairo and Ragnedda (2019), who emphasize that digital platforms in Africa offer both opportunities and constraints due to infrastructure disparities.

The relationship between digital literacy and political information consumption is well-documented. Livingstone and Helsper (2007) argue that access to and skills in digital media significantly affect the extent and quality of political engagement online. Individuals with higher digital literacy are more likely to critically evaluate political information and engage in civic action.

However, Park (2013) noted that while college students were digitally savvy, their critical engagement with political content varied widely based on prior interest and media literacy training. In ODeL contexts, this challenge is compounded by disparities in access and digital skill levels, as shown in Brown and Czerniewicz (2010), who studied South African distance learners and highlighted the infrastructural and socio-economic barriers to meaningful digital engagement.

While the frequency of online political information consumption is often studied, motivation is equally critical. Ksiazek, Malthouse, and Webster (2010) distinguish between "incidental exposure" and "intentional seeking" of political content, with the latter being more predictive of knowledge gain and civic participation. In educational settings, this aligns with the Uses and Gratifications Theory (UGT), which posits that students actively seek political content to meet cognitive, social, or emotional needs (Rubin, 2009). Thus, empirical literature suggests that the Internet is a significant source of political information, especially for students and young adults.

The extent and quality of political information consumption are influenced by a range of factors, including digital literacy, infrastructure, motivation, and the affordances of different platforms. In the context of South African ODeL institutions, these factors are further complicated by digital divides and varying access. This underscores the need for context-specific research to better understand how pre-service teachers, in particular, navigate online political spaces.

3. RESEARCH METHODOLOGY

In this section, we present the study's methodology for examining the extent of Internet use for the consumption of political information among pre-service teachers at one ODeL institution in South Africa. Specifically, the section focuses on the research approach, data collection procedures and instruments, validity and reliability of the instrument, sampling technique and the study's sample, data analysis methods, and the ethical considerations adhered to, ensuring that the integrity of the research process is maintained.

3.1. Research Design and Approach

This study reports on a broader research project examining how pre-service teachers utilize the Internet for political information consumption and how this influences their participation in Student Representative Council (SRC) politics at an ODeL institution in South Africa. The extent and frequency of Internet usage for political information among pre-service teachers at a South African Open Distance and e-Learning institution were systematically analyzed using a survey research design and a quantitative approach. The survey method was chosen because of its ability to effectively gather standardized data from a large, geographically dispersed population of pre-

service teachers, such as those at the University of South Africa. According to Creswell and Creswell (2018), survey research is particularly useful for studying patterns of behavior, attitudes, or views within a specific group at a particular point in time. It allows for accurate comparison of responses across different demographic groups, including age and gender, which is essential for understanding how often and to what extent individuals use the Internet to access political information.

The authors have selected the quantitative research approach as it aligns with the objectives and research questions of the study. It is also useful for collecting measurable data and enabling statistical analysis of trends, frequencies, and relationships. Babbie (2020) argues that patterns within a large population can be statistically analyzed, while significant differences based on demographic variables, including gender and age, can also be tested using a quantitative approach.

The structured design of survey instruments and inferential tests, such as Chi-square, facilitates the collection of replicable and generalizable data, which is considered imperative for analyzing behavioral trends in political engagement. The design and approach are consistent with established traditions in digital media and political participation research, where large-scale studies have utilized quantitative methods to investigate young people's engagement with political content online (Boulianne, 2015). This approach reduces researcher bias through the use of standardized tools and objective analysis, thereby enhancing reliability and internal validity (Neuman, 2014).

3.2. Data Collection Procedure and Instrument

The researchers collected data using an online survey focusing on the extent and frequency of Internet usage for political information consumption among pre-service teachers at the University of South Africa. The online survey instrument was created in tandem with the objectives and research questions of the study. It was designed and distributed online, taking into account the digital context of the University of South Africa's learning environment. The survey comprised 23 closed-ended questions that asked pre-service teachers about the frequency of internet usage, preferred digital platforms for political information, and degrees of political participation. The researchers used a web-based Microsoft Form for the distribution and administration of the questionnaire electronically, given the pre-service teachers' geographical distance (Garvey, O'Connell, & McDonough, 2021).

The ICT Department of the University of South Africa, where the study was conducted, was provided with the web-based questionnaire's access link for onward distribution among pre-service teachers. This is consistent with the institution's policies and procedures regarding research ethics, whereby researchers are only permitted to collect data from students and staff through the gatekeepers following approval from the relevant authorities. The questionnaire was divided into the following three sections: demographic data, Internet usage behaviors regarding political information-seeking, and the frequency and intentionality of online political participation. The second and third sections comprised items on a 4-point Likert scale, with responses ranging from Strongly Disagree (1) to Strongly Agree (4). Bryman (2016) states that a 4-point Likert scale is simple to use and considered appropriate for statistically analyzed educational and behavioral research. The items were designed to evaluate the frequency of students' Internet usage for accessing political information, including daily, weekly, and monthly engagement patterns. The instrument incorporated inquiries regarding platforms and media types utilized, such as social media and news websites, alongside the students' motivations and perceptions concerning the consumption of political information.

3.3. Validity and Reliability of the Instrument

The construct validity of the instrument was established by evaluating both content validity and face validity. The researchers ensured that the content validity of the instrument was established during the survey development phase by aligning questionnaire items with the extant literature on Internet use and political information consumption (Boulianne, 2015; Rubin, 2009). Thus, the survey items were developed to address multiple aspects of political information-seeking, encompassing frequency, intent, and platform utilization. Educational researchers and

digital media experts were consulted during the instrument review process to ensure the items were consistently appropriate, comprehensive, and contextually relevant to the South African ODeL pre-service teachers' population. For the instrument's face validity, the researchers pilot-tested the instrument among a small group of pre-service teachers to confirm its clarity, relevance, and suitability for data collection on students' use of the Internet for political information consumption. This is corroborated by expert researchers in quantitative methods, whose opinions also helped to affirm the face validity of the instrument. The survey instrument's reliability was assessed using Cronbach's alpha, a metric for assessing the internal consistency of multi-item scales. There were six items (Q15–Q20) developed to evaluate Internet use for political information consumption, which were analyzed and yielded a Cronbach's alpha of 0.78, signifying a strong internal consistency of the instrument. An alpha of not less than 0.70 is recommended as acceptable for reliability (George & Mallery, 2003).

3.4. Research Sampling Technique and Sample

This research utilized a non-probability purposive sampling method to select participants from a South African Open Distance and e-Learning (ODeL) institution. The researchers adopted the purposive sampling method because it was helpful in selecting participants who are most likely to yield pertinent and insightful data aligned with the research objectives (Etikan, Musa, & Alkassim, 2015). This method is effective for examining specific characteristics within a defined group, such as political information consumption among teacher trainees studying in an online learning environment. ODeL students engage with educational content and communication predominantly via digital platforms, indicating a demographic with diverse levels of exposure to online political information, which is a central aspect of the study. The target population consisted of pre-service teachers enrolled in teacher education programs, deemed suitable for the study because of their dual roles as learners and prospective educators. A total of 2,423 pre-service teachers volunteered to participate in the study by completing an online-administered structured questionnaire. The sample was suitable for examining behavioral trends and demographic variations in political information consumption among digitally active pre-service teachers. Non-probability sampling, while restricting the generalizability of findings to the wider population, allows researchers to obtain in-depth, contextually relevant insights from a specific group (Creswell & Creswell, 2018).

3.5. Data Analysis

This study applied the quantitative statistical methods, in tandem with the study's descriptive and inferential objectives, to analyze the data obtained from the structured online survey. These analytical methods enabled researchers to identify statistically significant trends and differences and make evidence-based conclusions regarding pre-service teachers' consumption of political information. The data collected from the 2,423 pre-service teachers were properly organized into an Excel spreadsheet, coded appropriately, and exported into SPSS version 25 for systematic analysis, which is effective for managing large datasets and performing both descriptive and inferential statistical procedures (Pallant, 2020).

The first two research questions, concerning the frequency and the ways pre-service teachers utilize the Internet for consuming political information, were examined using descriptive statistics such as frequencies, percentages, and means. This approach enabled the researchers to summarize patterns of online political information consumption across different time intervals (e.g., daily, weekly, monthly). Visual representations such as bar charts and heatmaps were employed to effectively convey trends and variations in data distribution. Additionally, Chi-square tests of independence were used to analyze the third research question, which focused on the impact of demographic variables—specifically gender and age on the frequency of political information consumption. Field (2018) argues that non-parametric tests, such as the Chi-square test, are appropriate for assessing differences in the distributions of categorical variables. The researchers utilized the Chi-square test to identify statistically significant associations between demographic factors and Internet engagement patterns related to political information consumption.

3.6. Ethical Considerations

The researchers applied for ethical approval from the College of Education (CEDU) Ethics Committee at the University of South Africa. The researchers, afterward, sought approval for 'permission to conduct research' from the Research Permission Subcommittee for data collection at the ODeL institution. The researchers also obtained consent from each of the participants using the informed consent form designed for such purposes. The findings of the study are presented in the next section.

Table 1. Socio-demographic characteristics of participants.

Variables	Frequency	%
Gender		
Male	406	16.8
Female	2017	83.2
Age groups		
16-20 yrs	176	7.3
21-25 yrs	548	22.6
26-30 yrs	784	32.4
31 and above	915	37.8
Programmes of study		
BEd Foundation Phase	252	10.4
BEd Senior & FET	1827	75.4
PGCE	179	7.4
Intermediate Phase	165	6.8
Year of study		
Year 1	745	30.7
Year 2	241	9.9
Year 3	410	16.9
Year 4	619	25.5
Year 5	340	14.0
PGCE	68	2.8
Employment status		
Civil servant	114	4.7
Self-employed	80	3.3
Politicians	1	0.0
Unemployed	1846	76.2
Other	382	15.8
Race		
Black/African	2221	91.7
White	64	2.6
Coloured	107	4.4
Indian/Asian	31	1.3
Geographical area		
Urban	2070	85.4
Sub-Urban	353	14.6
N = 2423		

4. FINDINGS

The sociodemographic profile of the 2,423 participants in Table 1 shows that, in line with gender trends in teacher education, the majority were female (83.2%). The majority of participants (70.2%) were mature students, indicating that many may have returned to school following employment or life experience. There was a clear preference for teaching at the secondary level, with the highest percentage (75.4%) enrolled in the BEd Senior & FET Phase programme. Participants were spread across the overall study years, although Year 1 had a disproportionately high number (30.7%), indicating that most of the respondents were just beginning their teacher education and training. Only a few reported professional employment, while the majority (76.2%) were unemployed, which is likely indicative of full-time study, according to employment status statistics. The majority of the sample (91.7%) was Black

or African, with minor representatives from other racial groups. This aligns with the demographics of South African public institutions nationwide. Furthermore, 85.4% of students lived in cities, suggesting they would have easier access to digital infrastructure, which could impact both internet use and political participation.

RQ#1: Have pre-service teachers at a South African Open Distance and e-Learning institution engaged in consuming political information through the Internet?

This question is raised to establish a foundational understanding of political media engagement among a specific and strategically important population. Pre-service teachers are future educators who will play a role in shaping civic awareness and political discourse in society. Investigating their online political information consumption habits is especially relevant in a digitally mediated learning environment like Open Distance and e-Learning (ODeL), where the Internet is often the primary medium for accessing news, debates, and civic content. By addressing this question, the study seeks to determine whether these students actively engage with political content online at all, before delving into the frequency, patterns, or purposes of such use. It helps anchor the research in basic behavioral trends and provides context for deeper analysis related to digital literacy, media effects, and civic readiness.
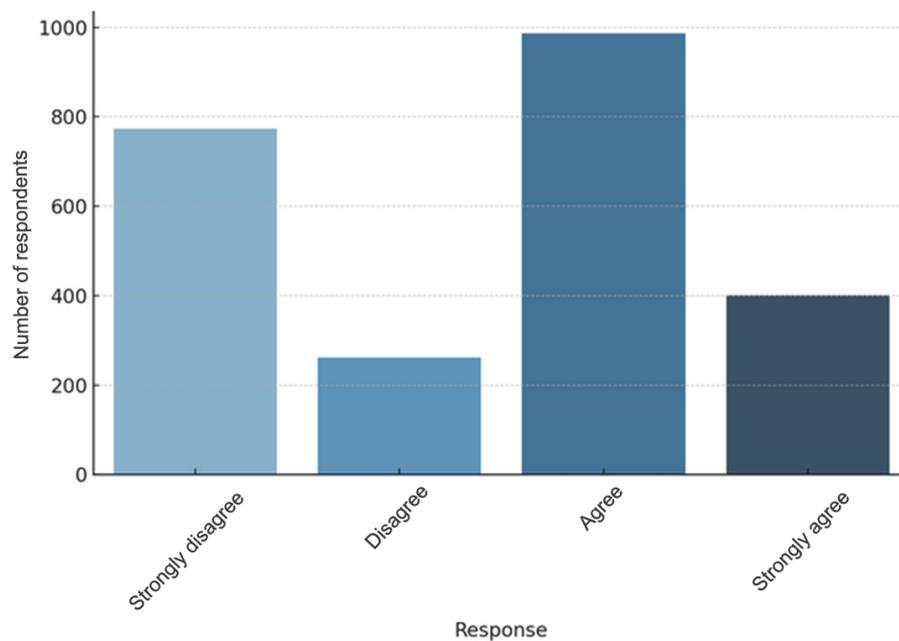

Figure 1. Pre-service teachers' internet use for political information.

The bar chart (Figure 1) presents the distribution of responses to the question, likely asking whether pre-service teachers have ever used the Internet to consume political information. A considerable number of respondents agreed or strongly agreed, indicating a meaningful level of political engagement online. A smaller but notable portion disagreed or strongly disagreed, suggesting variability in exposure or interest. This indicates that a majority of pre-service teachers at the ODeL institution have indeed used the Internet to access political information, supporting the relevance of this line of inquiry.

RQ#2: In what ways do pre-service teachers frequently engage with political information online across different time intervals?

This question is asked to gain a detailed understanding of the intensity and regularity of political information consumption among pre-service teachers in an ODeL setting. While knowing whether they engage at all is important, examining how often they do so across intervals (e.g., daily, weekly, monthly) provides insights into their level of political interest, digital engagement habits, and informational needs. In the context of this study, frequency data helps to identify patterns of civic behavior, assess the depth of digital political participation, and examine how often future educators are exposed to political discourse online. This can also reveal disparities in engagement that may

relate to access, motivation, or digital literacy, all of which are crucial in shaping how well-prepared these individuals are to foster informed citizenship in their future classrooms.
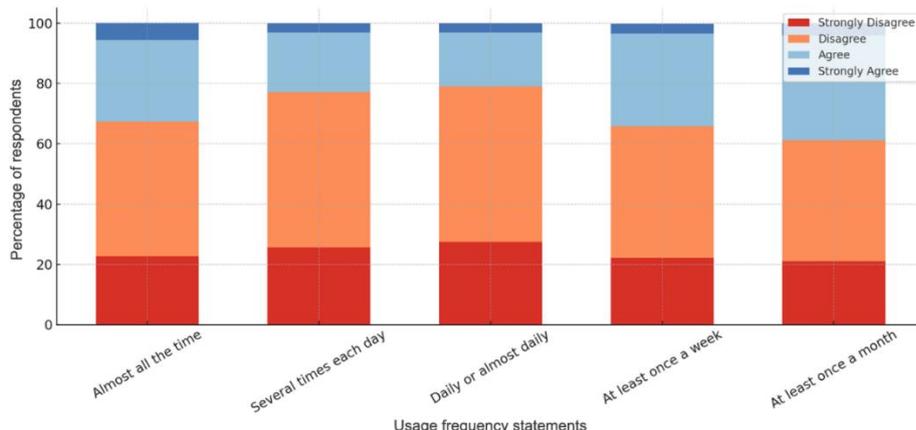

Figure 2. Frequency of internet use for political information.

The bar chart (Figure 2) illustrates the distribution of responses across different frequency statements about Internet use for political information. Across all frequency categories, "Disagree" is the most selected response, ranging from 40.2% to 51.6%. The least frequent responses are consistently in the "Strongly Agree" category (only 3–5%). Monthly use ("*at least once a month*") showed the highest proportion of agreement (Agree + Strongly Agree = 38.8%). Daily and multiple-times-daily use shows low engagement, with over 75% of respondents rejecting those higher-frequency claims.

RQ#3: In what ways does the frequency of Internet use for consuming political information significantly differ based on demographic variables of gender and age group?

This question is asked to explore whether personal characteristics influence digital political engagement among pre-service teachers in a South African ODeL context. Demographic variables like gender and age often shape how individuals access, interpret, and engage with political information online, due to differences in exposure, interests, technological confidence, or socio-cultural norms. By examining these differences, the study aims to uncover potential disparities or patterns in engagement that could inform more equitable and inclusive digital citizenship education. It also helps identify which groups may need targeted support or resources to fully participate in online political discourse.

Nevertheless, this question contributes to understanding how demographic diversity affects the frequency and nature of civic engagement in digitally driven learning environments.

Table 2. Cross-tabulation of Internet use for political information by gender.

Variable	Significant difference (p < 0.05)
Never use the internet for political information	Yes (p = 0.0046)
Use the internet almost all the time	Yes (p = 0.0002)
Use several times daily	Yes (p < 0.0000)
Use daily or almost daily	Yes (p < 0.000)
Use at least once a week	Yes (p = 0.004)
Use at least once a month	No (p = 0.071)

Table 2 shows that men tend to report more frequent political internet use than women across most categories. It also indicates that the differences are statistically significant, except for monthly use.

Table 3. Cross-tabulation of internet use for political information by age.

Variable	Significant Difference? (p < 0.05)
Never use the internet for political information	No (p = 0.255)
Use the internet almost all the time	Yes (p = 0.001)
Use several times daily	Yes (p = 0.027)
Use daily or almost daily	Yes (p = 0.023)
Use at least once a week	Yes (p = 0.003)
Use at least once a month	Yes (p < 0.000)

In Table 3, the frequency of political information consumption via the internet increases with age. Except for those who reported never interacting with political information (p = 0.255), Table 3 shows that age also impacts (not as significantly as gender) how frequently pre-service teachers utilize the internet to obtain political information. All other age groups, including those who used the internet almost daily, often, weekly, monthly, or nearly daily, showed statistically significant differences (p < 0.05). This implies that age influences the level of political information consumption online, with some age groups, likely younger, more tech-savvy students, engaging more frequently than others. These results demonstrate the necessity of age-appropriate methods in ODeL contexts for digital civic education.

Table 4. Chi-square test results for internet use for political information consumption by gender and age group.

Comparison	Chi-square value (χ^2)	Degrees of freedom (df)	p-value	Interpretation
Gender vs internet use for political information consumption	13.03	3	0.0046	Statistically significant. Gender affects responses.
Age group vs internet use for political information consumption	11.32	9	0.255	Not significant. No strong age-based differences.

The results in Table 4 are indicative of the fact that gender is statistically significant among the demographic variables. However, there is a meaningful variation in how males and females consume political information online. The results also affirm that age, as a demographic variable, is of little or weak significance. In comparison, the age group test yielded a p-value of 0.255, 9 degrees of freedom, and a Chi-square value of 11.32, all of which are not statistically significant. By implication, age groups collectively have little effect on overall patterns of political information consumption. Thus, age groups do not all show a substantial or consistent impact in this context, even as gender emerges as a critical demographic variable in influencing digital political information consumption. It is safe to conclude that there is no strong evidence that different age groups differ significantly in their Internet usage patterns. Collectively, the results are graphically represented in Figure 3.
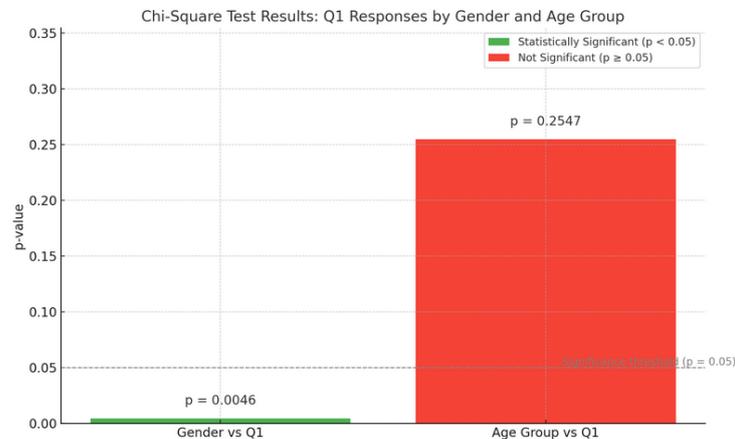

Figure 3. Chi-Square Test Results Showing Responses by Gender and Age Group.

A Chi-square analysis was conducted to assess whether significant differences exist in the consumption of political information on the Internet (as measured by "the Internet use") based on gender and age group among pre-service teachers at a South African Open Distance and e-Learning (ODeL) institution. The results reveal a statistically significant difference between genders ($p = 0.0046$), indicating that male and female pre-service teachers differ meaningfully in how they engage with political information online. In contrast, no statistically significant difference was found across age groups ($p = 0.255$), suggesting that age does not play a critical role in shaping these students' online political consumption habits. A visual summary (see Figure 3) highlights these results, with a green bar indicating significance for gender, a red bar showing non-significance for age, and a dashed line at $p = 0.05$ marking the common threshold for statistical significance.

5. DISCUSSION OF FINDINGS

This research examined the extent of Internet utilization for political information consumption among pre-service teachers at a South African Open Distance and e-Learning (ODeL) institution. This research, informed by the Uses and Gratifications Theory, Media Dependency Theory, and the Digital Literacy Model, aimed to examine the engagement of pre-service teachers with political content online, focusing on the frequency of such engagement and the potential influence of demographic factors such as gender and age on these patterns. The findings offer significant contributions to current discourse on digital citizenship, civic engagement, and teacher education within digitally mediated learning environments.

The first research question examined whether pre-service teachers had utilized the Internet to access political information. A significant proportion of respondents expressed agreement or strong agreement, indicating widespread engagement with online political information. This finding is consistent with existing literature that characterizes university students, especially in digital learning environments, as active consumers of civic and political information (Boulianne, 2015; Loader et al., 2014). More importantly, this finding underscores the significance of digital platforms in influencing political awareness among future educators, who are anticipated to exemplify informed citizenship. The second research question investigated the frequency with which pre-service teachers interact with political information online. The findings indicated that daily or high-frequency consumption was comparatively low, whereas weekly and monthly engagements were more prevalent. The findings also indicate that political information is not integrated into the participants' daily media routines, yet it is accessed intermittently. This behavior corresponds with previous research that differentiates between incidental and intentional political exposure in online contexts (Ksiazek et al., 2010; Shehata & Strömbäck, 2011). This aligns with the UGT framework, suggesting that students pursue political content mainly when it satisfies particular informational, cognitive, or identity-related requirements (Rubin, 2009). The infrequent usage may indicate infrastructural issues, including inconsistent access, elevated data costs, and gaps in digital skills, particularly pertinent in the context of Open Distance e-Learning (Czerniewicz, 2018; Prinsloo & Walton, 2008).

The third research question examined the impact of demographic factors, specifically gender and age group. The results demonstrate that gender has a significant impact on political information consumption, as male students exhibit more frequent usage across the majority of intervals. This contrasts with certain international studies (e.g., Dholakia (2006)) while aligning with local observations of gendered digital behavior in African contexts (Bosch, 2017). Conversely, age groups did not collectively demonstrate a statistically significant 'overall' difference; however, certain specific intervals indicated minor variations. This indicates that the frequency of online political information consumption is not significantly correlated with age groups within this population, possibly owing to the common academic and digital contexts that transcend generational divides in ODeL institutions.

The use of UGT facilitated an understanding of the motivations driving pre-service teachers' engagement with political information. Respondents are active seekers of content that fulfills personal, professional, and social needs. Nonetheless, as outlined in the theoretical framework, UGT's limitation is its insufficient focus on structural barriers.

The study, through the lens of Media Dependency Theory, emphasized the dependence on digital platforms for understanding political realities, particularly in a learning model characterized by limited face-to-face civic discourse. Finally, the Digital Literacy Model highlighted the disparities in digital skills and access, which may account for the reduced occurrences of high-engagement behavior (Ng, 2012; Van Deursen & Van Dijk, 2014). The findings of this study indicate that pre-service teachers at a South African ODeL institution engage with political information online in an episodic manner, influenced primarily by demographic factors, particularly gender. The insights are significant for digital literacy education, policy development in ODeL institutions, and the overarching goal of equipping future teachers to be politically aware and digitally competent citizens and civic educators.

6. CONCLUSION

This research aimed to examine the extent, frequency, and demographic trends of Internet usage for political information among pre-service teachers at a South African Open Distance e-Learning institution. The findings indicate that although a majority of pre-service teachers interact with political information online, such engagement is typically sporadic and inconsistent, shaped by demographic variables like gender. The findings highlight the significance of context-sensitive and digitally inclusive strategies in teacher education, offering evidence to enhance digital citizenship education within the ODeL framework. This study integrates theoretical insights from Uses and Gratifications Theory, Media Dependency Theory, and the Digital Literacy Model to provide a multidimensional understanding of future teachers' interactions with political information in a digital context. The statement highlights the challenges and opportunities present in South Africa's digitally mediated higher education system. As ODeL institutions expand, they must enhance their efforts to prepare pre-service teachers as both educators and informed digital citizens.

7. PRACTICAL IMPLICATIONS OF THE STUDY

This study's findings have significant implications for educational policy, teacher training programs, and digital inclusion initiatives in South African Open Distance and e-Learning (ODeL) institutions. The observation that a majority of pre-service teachers engage with political information online, though infrequently, underscores the necessity of incorporating structured digital citizenship education into teacher training curricula. Future educators must possess both technical digital skills and the ability to navigate, evaluate, and instruct political information in a responsible and critically informed manner. Secondly, the identified gender disparities in engagement necessitate specific interventions to address participation gaps. It is essential to ensure that digital learning environments promote inclusive political engagement for all students, regardless of gender. Gender-responsive digital literacy programs may mitigate disparities and enable all students to engage actively in democratic processes. The irregular frequency of political information consumption indicates the presence of digital access barriers, including limited connectivity and high data costs, which are prevalent challenges for numerous ODeL learners. This emphasizes the significance of national and institutional initiatives to enhance affordable and reliable internet access, especially for underserved student demographics. The study illustrates that ODeL learners significantly depend on digital platforms for civic engagement, highlighting the importance of institutions in offering reliable, accessible political information and promoting critical discussion environments. These platforms function as digital extensions of the classroom, facilitating informed dialogue, reflection, and engagement with public life.

8. LIMITATIONS OF THE STUDY

This study, while offering valuable insights into the political information consumption behaviors of pre-service teachers in a South African ODeL institution, is not without limitations. The use of a non-probability purposive sampling method limits the generalizability of the findings to the broader population of South African students or those in traditional universities. Data were self-reported, which may introduce response bias or social desirability

bias, especially on politically sensitive questions. Although the study achieved a respectable Cronbach's alpha (0.78), suggesting acceptable reliability, further scale validation across diverse populations would strengthen the robustness of the instrument. The research focused solely on quantitative data, which provides breadth but limits depth in understanding students' motivations and experiences.

9. SUGGESTIONS FOR FUTURE STUDIES

Future research may utilize a mixed-methods approach to integrate quantitative data with qualitative insights obtained from interviews or focus groups, thereby enhancing the understanding of student engagement with political information online. Researchers can investigate longitudinal methods to monitor the evolution of digital political engagement patterns over time, especially in relation to significant political events or changes in institutional digital policies. Extending the research to encompass various ODeL institutions or incorporating traditional universities would facilitate comparative analysis and enhance generalizability. Future research may explore further demographic or socio-economic variables, including digital device ownership, employment status, or previous exposure to civic education, to enhance understanding of the factors influencing online political engagement among students. Researchers must evaluate the efficacy of digital literacy training programmes and their impact on political knowledge, critical thinking, and civic engagement within educational settings.

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