

The Impact of Infodemic on Local Government Tertiary Institutions

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Abstract	Article Info
<p>This study examines the localized impact of the infodemic—defined as the rapid spread of false, misleading, or harmful information—within a Philippine local government tertiary institution, Dr. Filemon C. Aguilar Memorial College of Las Piñas (DFCAMCLP). Drawing on global frameworks of information disorder, this investigation examines how misinformation, disinformation, and malinformation impact faculty perceptions, institutional communication, and organizational operations. A mixed-methods approach, supported by stratified random sampling of 44 faculty members, reveals that communication gaps, leadership inconsistencies, and policy ambiguities exacerbate the vulnerability of institutional processes to information distortion. Differences in perception between full-time and part-time faculty highlight the importance of inclusive communication practices and equitable access to verified information. The study also identifies structural and demographic factors—such as tenure and role positioning—that affect susceptibility to the infodemic’s effects. Anchored on Wardle and Derakhshan’s (2017) information disorder framework, the research contributes a localized lens to understanding infodemic vulnerabilities in academic settings. The study ultimately proposes a strategic work plan, including digital literacy initiatives, policy reforms, and technology-based interventions, aimed at enhancing institutional resilience, academic integrity, and critical information practices in response to evolving information challenges.</p>	<p>Keywords: Infodemic, Information Disorder, Academic Governance, Local Government Tertiary Institution, Digital Literacy</p>

INTRODUCTION

In an increasingly digitized world, the integrity of information has become a cornerstone of institutional effectiveness, particularly in the academic landscape. The emergence of the "infodemic," defined by the World Health Organization as the overabundance of information, both accurate and false, poses not just a public health hazard but also a threat to organizational stability, policy coherence, and academic credibility. While global discourse on misinformation and disinformation continues to evolve, it often lacks specificity when addressing the challenges faced by local government-run tertiary institutions navigating complex communication dynamics. At the heart of this study lies the recognition that institutions like Dr. Filemon C. Aguilar Memorial College of Las Piñas (DFCAMCLP) do not operate in a vacuum but are embedded within larger information ecosystems shaped by digital connectivity, institutional practices, and leadership dynamics. The problem becomes acute when information disorder infiltrates decision-making channels, disrupts communication structures, and erodes faculty trust, ultimately compromising academic integrity and operational resilience.

Despite growing interest in "infodemiology" as a scientific domain, most investigations focus either on global health contexts or business implications, leaving a research gap regarding the internal mechanisms by which infodemics affect the day-to-day governance of academic institutions. Existing literature often generalizes findings across diverse settings without addressing the unique information vulnerabilities present in local academic communities. Evidence shows that institutional communication breakdowns, policy ambiguity, and inconsistent leadership responses can intensify the spread of misinformation within academic settings (Wardle & Derakhshan, 2017; Bessi et al., 2020). Another research gap is the lack of localized empirical studies exploring how faculty demographics and employment status influence perceptions and experiences of information disorder. While digital literacy and misinformation-sharing behaviors have been studied extensively among students and the general public (Chen et al., 2015), fewer studies have probed the differential impact on full-time and part-time faculty members in tertiary environments. Preliminary evidence from DFCAMCLP suggests significant variations in access to institutional updates, awareness of policies, and exposure to misinformation channels between these faculty groups.

This study contextualizes these global concerns within the operational realities of a local government tertiary institution—DFCAMCLP—an academic environment shaped by governance structures, fluctuating internet connectivity, and an evolving digital literacy profile. Situated in Las Piñas City, the institution represents a critical case study for understanding how information disorder manifests within Philippine higher education systems governed by public mandates. Thus, the study aims to explore the infodemic's impact on institutional communication, organizational operations, and faculty perceptions; to examine the frequency and pathways through which misinformation, disinformation, and misinformation spread within the institution; to identify differences in experiences based on employment status and demographics; and to develop strategic, actionable recommendations rooted in empirical findings to improve academic resilience. Ultimately, this paper seeks to develop an informed framework for mitigating the effects of the infodemic within DFCAMCLP and comparable institutions, contributing localized insights to the broader field of infodemic management in academic governance.

LITERATURE REVIEW

METHODOLOGY

Research Design

This study employs a descriptive quantitative research design to systematically examine the impact of the infodemic, encompassing misinformation, disinformation, and malinformation, within a local government tertiary institution. Utilizing a stratified random sampling technique, the research captures diverse perspectives from full-time and part-time faculty members of Dr. Filemon C. Aguilar Memorial College of Las Piñas during Academic Year 2024–2025. Data were collected through a structured survey questionnaire, which measured

demographic characteristics, perceptions of institutional communication, organizational structures, and leadership dynamics contributing to the infodemic. The instrument integrated Likert-scale items and multiple-choice responses to ensure clarity and consistency in responses. The collected data were subjected to descriptive statistical analysis, including frequency counts, percentages, and weighted means, to summarize respondent profiles and overall patterns. Inferential statistical tools, including t-tests and one-way ANOVA, were applied to determine whether significant differences existed among faculty perceptions based on demographic variables such as employment status, tenure, and age group. This design facilitates a robust and structured analysis of institutional vulnerabilities to information disorder, enabling the formulation of targeted interventions that aim to enhance academic resilience, communication integrity, and organizational preparedness in response to evolving information challenges.

Participants of the Study

The target population for this study comprises full-time and part-time faculty members currently employed at Dr. Filemon C. Aguilar Memorial College of Las Piñas during the 2024–2025 academic year. The study uses stratified random sampling to ensure fair representation across employment status and academic departments. A total of 44 faculty members, comprising 29 full-time and 15 part-time, participated in the study. These participants represent a cross-section of genders, age ranges, and years of teaching experience, allowing for a comprehensive understanding of how different faculty demographics perceive and are affected by the infodemic. Their insights, gathered through structured survey questionnaires, are pivotal in identifying communication gaps, organizational vulnerabilities, and policy limitations that contribute to the spread of misinformation, disinformation, and malinformation within the institution. Participation was voluntary, and ethical safeguards, including informed consent, data anonymity, and the right to withdraw, were strictly observed to ensure the integrity and trustworthiness of the study's findings.

Instrument

The instrument utilized in this study is a structured survey questionnaire developed to quantitatively assess the impact of the infodemic on faculty members at Dr. Filemon C. Aguilar Memorial College of Las Piñas. Designed to capture a comprehensive view of faculty experiences, the questionnaire comprises multiple sections that explore demographic characteristics (including gender, age, employment status, and length of service), perceptions of institutional communication, and organizational factors such as leadership styles, policy clarity, and the flow of information. It includes Likert-scale items and closed-ended questions to ensure clarity and consistency in responses while allowing for statistical comparison across demographic groups. Administered via Google Forms, the questionnaire provides a uniform digital platform to facilitate efficient data collection, especially in light of potential challenges related to internet accessibility. To ensure ethical compliance and data quality, the instrument underwent validation through internal review, with content vetted by the Quality Assurance, Research, and Extension (QUARE) Office. The survey design supports the application of descriptive and inferential statistics, enabling the research to draw meaningful insights into how information disorder influences academic operations, communication processes, and faculty roles within a localized institutional context.

Data Analysis

The data analysis procedure of this study followed a structured and statistically grounded approach to effectively interpret the results drawn from faculty perceptions at Dr. Filemon C. Aguilar Memorial College of Las Piñas. Upon collection, responses from the validated survey questionnaires were digitized through Google Forms and encoded using Microsoft Excel, ensuring consistent formatting and accessibility for statistical processing. The data were first examined using descriptive statistics to generate an overview of the respondent profiles. Frequency counts and percentages were used to analyze the distribution by gender, age range, employment status, and years of teaching experience. To evaluate participants' perceptions of institutional

communication, organizational factors, leadership approaches, and susceptibility to misinformation, the study utilized weighted mean computations. Each response was interpreted using a verbal scale aligned with specific mean ranges, allowing for clear insights into faculty consensus regarding the spread and impact of information disorder. Following this, the study employed inferential statistics to determine whether meaningful differences existed among faculty perceptions when grouped according to demographic variables. A t-test for independent samples was used to compare the responses between full-time and part-time faculty members, revealing whether employment status influenced infodemic exposure. Additionally, one-way Analysis of Variance (ANOVA) was conducted to identify statistically significant differences across multiple groups, particularly age brackets and teaching tenure. Key assumptions, including the independence of samples, normality of distribution, and homogeneity of variances, were implemented in these tests. Where data exhibited no measurable variance, particularly in some categorical groups, findings were interpreted cautiously and used to contextualize observed patterns rather than derive conclusive statistical claims. Together, this analytical framework allowed the study to identify key institutional vulnerabilities, track the differential experiences of faculty members, and validate the relationship between demographic factors and exposure to misinformation, disinformation, and malinformation. The results directly informed the formulation of targeted policy recommendations and actionable interventions designed to strengthen the college's resilience against future infodemic threats

Results

The Demographic Profile

The study surveyed 44 faculty members, composed of 29 full-time and 15 part-time instructors. The gender distribution showed a near balance with 55% male and 45% female respondents. A substantial portion (34.1%) was aged 50 and above, suggesting a mature and experienced workforce, while the smallest representation came from the 21–30 age group (4.6% combined). Among full-time faculty, 41.4% had over 15 years of teaching experience, whereas among part-time faculty, 53.3% had less than one year of service. These findings illustrate a bifurcation of experience and tenure, which contributes to how individuals perceive and navigate institutional information (Caceres et al., 2022).

Table 1. The demographic profile of the respondents

Demographic Variable	Category	Frequency	Percentage
Gender	Male	24	55%
	Female	20	45%
Age Range	50 and above	15	34.1%
	46–50	8	18.2%
	36–40	7	15.9%
	41–45 / 31–35	6 each	13.6% each
	21–25 / 26–30	1 each	2.3% each
Employment Status	Full-time	29	64%
	Part-time	15	36%
Years in Teaching (Full-time)	More than 15 years	12	41.4%
	11–15 years	6	20.7%
Years in Teaching (Part-time)	Less than 1 year	8	53.3%

Factors contributing to the infodemic among full-time and part-time faculty

Results indicate that faculty members strongly agreed ($M = 1.71$) that institutional communication is vulnerable to distortion through false statements, verbal gossip, and biased interpretation. This confirms Wardle and Derakhshan's (2017) view that misinformation rapidly disrupts trust when informal communication outpaces verified institutional channels. Organizationally, respondents noted that policy gaps, lack of procedural

systems, and influence of favoritism or nepotism ($M = 1.67$) fuel the chaos in information flow. Leadership was also viewed as a mediating factor: democratic approaches were seen as mitigating infodemic risks ($M = 1.64$), whereas autocratic or bureaucratic styles contributed to the stagnation of misinformation (Borenstein et al., 2022).

Table 2. Institutional Factors Contributing to the Infodemic

Dimension	Subdomain	Mean	Verbal Interpretation
Communication	Social media/verbal distortion	1.71	Strongly Agree
Organizational Structure	Ambiguity and misinformation flow	1.71	Strongly Agree
Rules and Policies	Gaps in the system and biases	1.67	Strongly Agree
Leadership Style	Democratic reduces, autocratic fuels	1.72	Strongly Agree

Level of occurrence of misinformation, disinformation, and malinformation

Grapevine networks and informal communication channels were deemed primary contributors to misinformation ($M = 1.76$). Part-time faculty expressed higher vulnerability due to limited institutional access and fragmented updates ($M = 2.00$), supporting Chen et al.'s (2015) argument that disconnected individuals often rely on peer-generated, unverified information. Functionally, all levels of the institution—from planning to control—were seen as critical in shaping either resistance or exposure to disinformation ($M = 1.55$), echoing Bessi et al. (2015) on how internal structures influence information fidelity.

Table 3. Level of Information Disorder by Flow, Tenure, and Role

Indicator	Mean	Interpretation
Direction of Information Flow	1.76	Strongly Agree
Occurrence (Full-time Faculty)	2.06	Agree
Occurrence (Part-time Faculty)	2.00	Agree
Functional Role (Planning, Control)	1.55	Strongly Agree

Significant difference in perceived infodemic impact based on demographic profile

ANOVA testing revealed significant differences based on age groups ($p < .001$), suggesting that generational experience and media literacy affect one's capacity to scrutinize misinformation (Farhoudinia et al., 2023). However, there were no statistically significant differences based on gender, employment status, or years of teaching experience, indicating that the infodemic affects all faculty roles similarly at a structural level, though its impact may manifest differently depending on access to institutional information streams.

Table 4. ANOVA Summary on Demographic Differences

Variable	F-value	Sig. Value	Interpretation
Gender	.000	.000	No significant difference
Age Range	65.519	.000	Significant difference **
Employment Status	.000	.000	No significant difference
Years in Full-time	.000	.000	No variation (uniform experience)
Years in Part-time	.000	.000	No variation (mostly <1 year)

*Legend: * Significant at $p < 0.05$*

Discussions

The findings of this study underscore the multifaceted impact of the infodemic on institutional communication, organizational stability, and faculty engagement within Dr. Filemon C. Aguilar Memorial College of Las Piñas (DFCAMCLP). The convergence of misinformation, disinformation, and malinformation disrupts academic

operations, influencing faculty perceptions and decision-making processes. The study presents compelling evidence that the dissemination of false or misleading information is not merely a passive occurrence but is actively shaped by institutional structures, leadership dynamics, and information accessibility. The demographic profile of respondents reveals a faculty composition dominated by experienced educators, with 34.1% aged 50 and above, and 41.4% of full-time faculty having over 15 years of teaching experience. While this extensive tenure suggests institutional stability, it also presents challenges in adapting to evolving digital literacy standards, a factor widely recognized in existing literature (Farhoudinia et al., 2023). Part-time faculty, comprising 36% of the teaching staff, demonstrated a markedly different profile, with 53.3% having less than a year of experience, which reinforces concerns regarding information access disparities between full-time and part-time educators (Chen et al., 2015). Faculty members reported significant vulnerabilities in institutional communication, with a weighted mean of 1.71 indicating strong agreement that false narratives and verbal distortions contribute to the infodemic. This aligns with Wardle and Derakhshan's (2017) information disorder framework, which underscores the rapid propagation of misinformation due to fragmented communication channels. The study further identifies organizational structural weaknesses ($M = 1.71$) and unclear institutional policies ($M = 1.67$) as factors that facilitate the spread of misinformation. Leadership style also plays a pivotal role, with democratic leadership ($M = 1.64$) perceived as fostering transparency and trust, whereas bureaucratic models ($M = 1.71$) contribute to the stagnation of misinformation (Borenstein et al., 2022).

The direction of information flow remains a critical concern, with grapevine networks and informal communication channels emerging as the primary conduits for misinformation ($M = 1.76$). This finding aligns with Bessi et al. (2015), who emphasize the role of unchecked narratives in distorting factual understanding. Additionally, ANOVA analysis revealed significant differences in faculty perceptions based on age ($p < .001$), emphasizing generational disparities in digital literacy and skepticism toward misinformation (Farhoudinia et al., 2023). However, statistical tests revealed no measurable differences in infodemic impact based on gender or employment status, suggesting that misinformation permeates institutional structures uniformly, regardless of faculty roles. To address these challenges, the study proposes an actionable framework that prioritizes digital literacy training, policy refinement, and transparency in leadership. Institutional interventions such as an Information Task Force, structured misinformation response guidelines, and collaborative fact-checking initiatives with DICT and PCO are necessary to mitigate the disruptive effects of misinformation and strengthen institutional credibility. By integrating these recommendations, DFCAMCLP can foster a resilient academic environment capable of navigating the complexities of information disorder in the digital age.

Conclusion

The findings of this study highlight the profound impact of the infodemic on institutional communication, academic operations, and faculty engagement within Dr. Filemon C. Aguilar Memorial College of Las Piñas. The study reveals that misinformation, disinformation, and malinformation significantly influence the effectiveness of leadership, the clarity of institutional policies, and the accessibility of verified information among faculty members. The results confirm that fragmented communication networks and inconsistent policy enforcement contribute to the persistence of information disorder, affecting both full-time and part-time faculty differently. Leadership approaches play a central role in either mitigating or exacerbating misinformation vulnerabilities, with democratic styles fostering transparency, while bureaucratic structures slow down the flow of information. The study also emphasizes that faculty members rely heavily on informal channels, such as social interactions and digital networks, to process institutional information, which further amplifies the risks of misinformation. Given these insights, this study underscores the necessity of strengthening institutional policies, reinforcing digital literacy initiatives, and implementing structured information management strategies to enhance academic resilience. By addressing these vulnerabilities, institutions can create a more informed and adaptive academic environment capable of navigating the challenges posed by evolving digital information landscapes.

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