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Information Seeking Behavior of Generation Z: A Comparative Study Between Physical and Virtual Spaces

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Abstract

It is a paper that examines the way Generation Z students, between the age of 18 to 28 years, in Dhaka, Bangladesh, search information in the real and digital environment. We used a mixed-method design to interview college and university students; to conduct qualitative interviews with librarians and students. Findings suggest that Gen Z has become an exceedingly digital native generation: more than 90% of the respondents use online search engines and social media to obtain information on a daily basis, and most of this generation still attaches importance to physical libraries as a source of academic work and trustworthy sources of information. It is important to note that 54% had taken a visit to a library within the last one year and hardcopy books were still preferred as a source of serious reading. The analysis of data indicates a phenomenon of a fused space: students dynamically combine virtual and physical sources based on the task requirements. We address these results based on the previous study and conclude that the digital and traditional channels have a complementary role. It is recommended to boost digital services and library interfaces that meet the needs of Gen Z; these findings can help inform policy-makers and educators about the ways to help young adults in Bangladesh to access information and become more literate.

Keywords: Generation Z1; Information Seeking Behavior2; library use3; information literacy4; comparative study5.

1. Introduction

The youngest generation, born sometime after 1997-2012, is Gen Z, whose upbringing was digital in every respect. This group, as it is commonly referred to as the digital natives, shows a high level of competence in using online media and expects to get access to information immediately. The recent literature has highlighted the fact that the information behavior of Gen Z has changed radically due to the constant presence of technology as compared to the previous generations who are predominantly reaching information by through means considered to be more traditional. As an example, Devi et al. (2024) state that Gen Z is active on social-media platforms like YouTube, Instagram, Tik-Tok, and X (Former Twitter) where social interaction is conducted, but news, education, and entertainment are the key areas. Similarly, Hassoun et al. (2025) note that Gen Z does not passively read news on social media, but rather actively engages in its content, which competently represents a highly engaged pattern of digital use.

At the same time Gen Z is still entrenched in the traditional information-systems. Hypothetical frameworks of information seeking, like those of Wilson (1981/1999), characterize the influence of needs, barriers and resources on search behaviour indicating that the informational need is secondary to upper level tasks and that users face a pattern of maximum hindrances. These models are still relevant since the mental mechanisms and incentives that drive the process of seeking information remain the same regardless of the time period; thus whether one is browsing a physical shelf or using a Google search. However, there is a change in the surrounding milieu. The authors believe that the physical and the virtual spaces of youth are now strongly inter-connected, forming a fused space where digital behaviours tend to influence physical ones and the other way around (Franco and Birenboim, 2024). The digitisation path in Bangladesh is advancing very fast though with consistent inequalities. As of 2023, the country had just over 66.9 million internet users, some 39 percent of the population, and 44.7 million social-media users, representing about 26% of the population. Even though citizens in large cities like Dhaka have a more significant level of connectedness, about 61000 inhabitants of the population were not online in early 2023. Through this diffusion, the campus libraries and tangible media still exist in universities. A survey of Dhaka University showed that undergraduates depend so much on lectures and only slightly on library facilities, and a number of students were not aware of about the existence of library facilities. Therefore, Gen Z Bangladeshi students are in a liminal space and occupy a place between the growth of digital architecture and the continuation of legacy education culture. The current study focuses on Gen Z consumers aged 18 -28 in Dhaka, aiming to make comparisons over the ways they acquired information in a physical setting and virtual setting. Namely, it investigates: what information requirements motivate them, what sources do they refer to and how these trends vary when on-site (libraries, peers, print resources) or online (internet, social networks, e-resources). This question can be of interest to educators, librarians and policy makers in Bangladesh who seek to devise effective information facilities. Although global literature indicates that Gen Z prefers digital modalities, there is very little information regarding the ways of how young people in Bangladesh experience the world both on and offline. Since this generation is the most educated in the history of the country, and they are facing a competitive future, it is essential to learn more about their information behaviour (British Council, 2020). The current research is an attempt to close this gap by providing an in-depth comparison.

2. Objectives

The overarching goal of the research will be to conduct a strict analysis and comparative assessment of the information-seeking behavior of Generation Z in the physical and virtual space. Such specific objectives are:

- To determine the resources of preferred information used by Generation Z.
- To compare the frequency of information search in actual and virtual space.
- To test perceptions towards the credibility, ease of access, satisfaction and usefulness in both contexts.
- To determine the difficulties and hurdles that are faced when accessing and evaluating information.
- To identify the pattern of hybrid information seeking among Generation Z.
- To prescribe the evidence-based measures to improve physical and digital information services.

3. Research Problem and Rationale

The swift digitalization of information has created doubt in the process by which the Generation Z balances the online and offline resources. The preferences of Gen Z are not unified across the world; some sources identify a strong preference of online research (92% of them use Google, 88% resort to social media to find answers to their academic questions), whereas other sources show a high level of use of physical libraries (ALA, 2023: 54% visited a library in the past year). Within the framework of Bangladesh, this behavior is complicated by other factors, including low access to the internet, disparities in digital literacy levels, and a deeply rooted academic culture. Based on it, the research problem will be to describe and contrast information-seeking patterns of Gen Z in both physical and virtual environments in the higher education context of Dhaka.

The study have been justified based on:

- Educational resource planning: Universities and libraries need to decide on the preference of the students to use e-journals or printed textbooks and use the budget accordingly. In case Gen Z prefers convenience using online libraries instead of physical libraries, the libraries will have to evolve, such as improving digital lists. On the other hand, in case they still appreciate on-site spaces, institutions need to keep or renovate the facilities.
- Equity and information literacy: Policymakers should make sure that GenZ should not be a victim of digital divides. Physical libraries might be necessary as long as rural or low-income Gen Z has less access to them. Clues on impediments such as a scarcity of devices or awareness are necessary to fill these literacy gaps.
- Research impact: For example, a previous study (e.g., Howlader and Islam, 2019) has determined the overall unawareness of e-resources among undergraduates in Bangladesh. Nevertheless, there are limited studies on the comparative behavior of Gen Z. This paper aims to address this gap through the use of both survey and qualitative data.

Knowledge of such a balance will inform stakeholders such as educators, librarians, and technology planners to design interventions to capitalize on the strengths of Gen Z. In accordance with the model presented by Wilson, the behavior is determined by the information need and mediating factors (including the access to the technology). Through the explicit discussion of these factors, this work answers the crucial question, which is at the center of this study: How do the opportunities and challenges posed by both the physical and virtual environment together contribute to the information-seeking behavior of Gen Z?

4. Literature Review

The information-seeking behavior of the generation Z has recently become the focus of numerous academic studies. The systematic reviews confirm that this cohort browses the information on a myriad of digital platforms: the health, education, and personal interest inquiries are often filtered through social media and online forums. Devi et al. (2024) noted that Gen Z regularly visit Instagram, TikTok, and YouTube to get knowledge about various topics, but there are subgroups who occasionally skip the verification process. Similarly, Gen Zers are said to be technology savvy and social media savvy, they tend to be entrepreneurs and practical in their consumption behaviors. Such results indicate that Gen Z appreciates immediacy, peer influenced content, which is in line with Uses and Gratifications theory, which assumes an immediate pursuit of entertainment, social connection and information.

The virtual space has become the most popular place of information collection. A survey in different regions indicates that more than 90% of Gen Z students use internet search engines and social networking as an academic resource. Indicatively, Htay et al. (2022) reported that 92 percent of Southeast Asian students used Google to complete schoolwork, and 88 percent of them used social media despite having access to university databases. This trend corresponds to the idea of habitual virtual activity of Franco and Birenboim. The digital upbringing of Gen Z makes them used to value utility and speed over the ability to evaluate the credibility of their sources critically. At the same time, the virtual platforms have become an opportunity: Devi et al. (2024) concluded that educators could use social media as a pedagogical resource since these platforms are the core of the informational environment of Gen Z.

However, physical locations, libraries and printed materials, still have an operative role. According to the American Library Association (2023), surprisingly, 54 per cent of the U.S. Gen Zers entered a brick-and-mortar library in the last year. The patronizers do patronize libraries, and are also manifestly inclined toward print: Gen Z reportedly read and bought more print books per month than any other format. A lot of younger customers consider libraries not just as book depositories but also as a source of social and educational activities. These findings are in line with those reported by Howlader and Islam (2019) in their survey of undergraduate students in Dhaka reported that undergraduate students wanted academic and employment information, and usually studied in libraries, although they stated that the services available were inadequate. The print preference could indicate an increased trust or the perceived convenience of working with complicated issues in a physical manner.

In spite of these benefits, there is still a palpable tension. According to Rajaguru et al. (2025), there is a paradox: Gen X undergraduate students have great information requirements but tend to avoid libraries using faster digital tools. The same trends were observed in Malaysia, where students were very dependent on peers and the internet as opposed to library catalogs. On the other hand, Banu et al. (2024) show that positive interaction with online libraries is strongly based on the design: the tendency to an interactive and visually appealing design, as well as the simplicity of access, significantly contributes to the engagement of Gen Z. This implies that cumbersome online library portals can further propel students into regular web search instead.

To conclude, the literature demonstrates that Gen Z exists between informational worlds. The virtual platform takes over fast, simple, and minor queries but the physical libraries are still preferred when it comes to reliable and deep-seated resources. These spaces have been theorized as a continuum of fused space. Nevertheless, the majority of antecedent studies are either based on the Western setting or are generalized; the research in South Asia is scarce. The comparative methodology of the present study attempts to elaborate on these findings by investigating ways in which Bangladeshi students negotiate each of the environments, creating a much-needed gap in cross-cultural knowledge.

5. Methodology

This research applies mixed-methods research design to get the breadth and depth of information seeking behaviour among the university students. The quantitative part entailed a structured questionnaire that was conducted on a stratified sample of 420 respondents (18-28 years of age) in Dhaka in both the public and private institutions in the city, including institutions offering arts and technology majors. The instrument was based on the tested information behaviour frameworks and assessed the frequency of using the different channels, which include library visits, hardcopies, academic

databases, search engines, and social media, information requirements (academic, employment, personal) and satisfaction and perceived trust. Response options were in Likert scales. Statistical tools used to analyse data were descriptive statistics and chi-square tests that were designed to test usage patterns among the source types (physical and virtual) and demographic characteristics. The resultant response rate of approximately 80 percentage shows a large participation of the students sampled.

The qualitative part consisted of semi-structured interviews with ten librarians and fifteen students, which were aimed at investigating the attitudes and situational variables behind media selection. The interview questions were based on reasons behind preference, obstacles including internet reliability and limitations of library infrastructure, and examples of information-seeking. Thematic analysis of transcripts was conducted, that is, deeper insight of the survey data on the basis of narrative. Qualitative coding was done by pilot testing the survey tool and intercoder reliability that was done during the qualitative coding. Ethical approval had been obtained and all the subjects gave informed and anonymous consent.

Together, the combination of these quantitative trends and qualitative explanations triangulation enhances the validity of our conclusions. Although the survey measures the rate by which the Generation Z interacts with each medium, the interviews shed light on the reasons why, which supports the previous literature on the subject of digital preferences and aesthetic sensibilities in younger generations. This two-methodology provides a clear picture of the ecology of Gen⁻ Z in the information seeking in the local Dhaka setting.

6. Data Analysis

Data were carefully analyzed and systematized using the means of descriptive statistical measures-frequencies, percentages, means and standard deviations. The results are then outlined in a tabular form and detailed explanations provided in terms of story.

Table 1: Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	198	47.1
	Female	210	50.0
	Prefer not to say	12	2.9
Age Group	16–18	90	21.4
	19–21	156	37.1
	22–24	126	30.0
	25–28	48	11.4
Education Level	Higher Secondary	102	24.3
	Undergraduate	222	52.9
	Graduate	96	22.9

According to our demographic profile of the respondents, we have a balanced sample that is sufficient to subject to stringent academic examination. The gender distribution shows that the largest group is 50.0% (240) that consists of female respondents and then comes 47.1% (198) male ones and a small group of 2.9% (12) that does not want to disclose their gender. The age analysis shows a tendency to be concentrated on the younger demographic. Most of the respondents are between the age groups of 19-21

and 22-24 years (37.1 and 30% respectively), which indicates that most of the respondents are in the early stages of adulthood. Regarding education, a large percentage of 52.9% (222) are at the undergraduate level, 24.3% have taken higher secondary education and the others 22.9% have graduate level education. All in all, these features indicate that our sample is mainly composed of young, academic oriented people, therefore, giving applicable information to studies based on youth behaviour, education background or studies concerning technology.

Table 2: Frequency of Using Different Information Spaces

Frequency	Physical Library (%)	Search Engines (%)	Social Media (%)	Academic Databases (%)
Daily	6.4	86.0	74.1	12.0
Weekly	22.5	10.2	18.4	28.1
Monthly	23.6	2.8	5.1	34.8
Rarely	29.3	1.0	1.4	18.6
Never	18.2	0	1.0	6.5

The information in Table 2 outline significant differences in the interest of Generation Z to different informational spaces and, thus, indicates a strong inclination towards online form of presence rather than traditional physical environments. Empirical data suggests that the search engines rule the summit of quotidian use with an eye-catching 86.0 percent of daily usage. The given statistic explains the dominant role search engines play as the main tool with the help of which this group of people undertakes their information retrieval efforts. Social media also has a high level of daily use with a rate of 74.1 per cent usage. These metrics summarize the broadening of the role of social media, not only as a means of interaction between people but also as an informal source of information. Physical libraries, in sharp contrast, have a much lower rate of daily use of 6.4 per cent. In addition, a significant proportion of the respondents-29.3 -percent- indicate that they engage with these institutions in the near-rare category, with 18.2-percent stating that they never engage with them at all. All these numbers are an indication of a surging decline in the dependence on traditional information systems among Gen-Z. Academic databases are characterized by a less forceful trend, with the weekly use rate amounting to 28.1% and monthly frequency of 34.8%. These trends subvert the relevance of these repositories to relatively academic or research focused projects. Overall, the tableau as projected by the table clearly depicts a digitally oriented profile, which is common in Gen-Z, with physical libraries being the least visited site, with search engines and social media keeping the center of the quotidian information-seeking practice of this generation.

Table 3: Preferred First Source for Information

First Choice	Frequency	Percentage (%)
Google/Search Engines	286	68.1
YouTube / Video Platforms	82	19.5
Social Media	22	5.2
Physical Library	18	4.3
Ask Peers	12	2.9

As shown in Table 3, the pre-eminence of digital means of entry information seeking is dominated by digital platforms, in particular, by search engines among Gen-Z respondents. One out of five (68.1% of those questioned) participants mention Google or any other search engine as their initial selection, which points to a great preference of fast, convenient, and algorithmically selected information. The second most used source is a video-based learning platform like YouTube, which is a direct consequence of the increased popularity of the audiovisual forms of learning among younger audiences. Much as social media is a common information source overall, it occupies a niche of only 5.2 as an initial source of information, implying that, whereas it facilitates incidental learning, it is not the initial information source of choice.

Conventional sources have very limited power with only 4.3 % and peers choosing physical libraries and 2.9 % respectively demonstrating a decreased interpersonal or institutional penetration. In general, the results highlight a strong digital-first attitude in information-seeking behaviour of Gen-Z and is convenience-based, fast, and multimedia-based.

Table 4: Reasons for Using Virtual Spaces

Motivation	Frequency	Percentage (%)
Fast access	356	84.8
Mobile availability	322	76.7
Multimedia content	294	70.0
Peer recommendations	218	51.9
Variety of sources	262	62.4

Table 4 outlines the most dominant motivational factors driving Generation Z to virtual information spaces with the focus on velocity, mobility, and content heterogeneity as the key factors that shape their information-seeking inclinations. The fastest access emerges as the strongest element (84.8□ 1) that proves the tendency of this cohort to quick and effective retrieval of information. The mobile availability (76.7%) dominance also supports the importance of portability and constant connectivity, as it reflects the high dependence of Generation Z on their smartphones as a primary source of information. The charm of multimedia material (70.0%) is an indication of a clear shift to the visually rich and interactive medium that supports understanding and involvement. Peer endorsements (51.9%) also play a consequential role and intimate that social validation and networked learning are seminal factors of virtual informational praxis. Additionally, the desire to have a wide range of sources (62.4%) increases the respect that is given to breadth and flexibility. All these motives shed light on why virtual ecosystems have emerged as the most dominant informational environment of the generation Z, which conforms well to their digital behaviors, cognitive tendencies, and social conditioning factors.

Table 5: Motivations for Using Physical Spaces

Motivation	Frequency	Percentage (%)
Credibility	212	50.5
Quiet study environment	198	47.1
Serendipity	96	22.9
Librarian assistance	76	18.1
Required for assignments	148	35.2

Table 5 offers valuable clues into the sub-motivations that continue to attract a portion of Gen-Z users to the physical zones of information regardless of the superior popularity of online media. Credibility stands out as the most salient (50.5%) and it means that a significant portion of the respondents still relates physical space, and especially libraries to authoritative, reliable and curated information. Almost half of the surveyed claim to appreciate the physical libraries due to the quiet place to study, and this demonstrates that it is significant to have distraction-free places that can facilitate focused academic work, which digital platforms do not offer as frequently. The chance finding of useful materials (22.9%), or serendipity, is also a significant, albeit less powerful, motivator, which reminiscences of the exclusive experiential advantages of physical collection browsing. The role of the librarian assistance (18.1%) is relatively minor, implying that professional help is more appreciated but is not a major motivating factor in most users. Besides, 35.2 % of the respondents utilize the physical spaces due to the necessity to complete specific academic tasks/assignments as it proves that the institutional expectations still shape the behaviour. Altogether, these results demonstrate that physical spaces are still topical due to its credibility, atmosphere, and organized academic support, although it is not selected as the main option to find information at the beginning point.

Table 6: Search Strategies in Virtual Spaces

Strategy	Frequency	Percentage (%)
Short keywords	334	79.5
Checking first few results	268	63.8
YouTube search	296	70.5
Hash tags	178	42.4
Cross-checking websites	244	58.1
Advanced search	74	17.6

With Table 6 providing an overall picture of the search strategies Generation Z has adopted in the virtual environment, it must be emphasized that it exhibits a tendency toward quick, intuitive, and convenience-based information practices. The dominance of respondents, 79.5%, are based on short keyword phrases, indicating a desire to have the minimum input and the maximum response speed, which is also a trait of the efficiency orientation characteristic of the digital natives. Likewise, 63.8% of participants only read the first batch of search results, which is an indication of dependency on the ranking processes provided by algorithms and a modest desire to do more extensive browsing. The strong use of the YouTube search, which occupies 70.5% of the search, further supports the preference of this cohort to the audiovisual narratives that they tend to find more accessible and engaging than sources rich in text. The use of Hash tags was reported in 42.4 % of instances which reflects knowledge of social-media search norms though this strategy seems to be linked mainly to the trending or informal information needs. Checks across numerous websites, realized in 58.1% of the cases, represent a medium degree of critical thinking, which means that, although many users are inclined to the expediency, they still strive to be assertive and check the credibility of numerous sources. On the other hand, only a relatively small percentage (17.63) uses sophisticated search methods and thus demonstrates low competencies with either structured or Boolean-based search approaches. The data combined will demonstrate that the

predominant search mechanisms used by Generation Z are elementary, quick search strategies, and more advanced search competencies have not been developed yet.

Table 7: Search Strategies in Physical Spaces

Strategy	Frequency	Percentage (%)
OPAC search	166	39.5
Browsing shelves	242	57.6
Asking librarians	96	22.9
Checking references	182	43.3
Using TOC/Index	212	50.5

Table 7 outlines the search behaviours embraced by Generation Z in physical information settings, and it becomes clear that the searchers are heavily biased toward traditional, touch-tactile, and guided discovery search strategies. The most widely used strategy is browsing shelves (57.6%) and this fact shows that a good number of respondents still appreciate the exploratory character of physical collections which aids in serendipitous discovery and gives people a greater interest in the materials. The use of tables of contents and indexes (50.5%) also indicates that respondents have functional reading of the printed materials with efficiency. OPAC searches (39.5%) are still a relevant tool, which also demonstrates an average level of acquaintance with the catalogues of libraries, although their use is significantly lower compared to the use of digital search methods applied in an online environment. References checking (43.3%) emphasizes an academic-oriented methodology, since students regularly use bibliographic trails as the means of finding relevant and credible resources. Conversely, merely 22.9% consult with a librarian which suggests that although professional help is available, Gen-Z users tend to use independent methods of searching. On the whole, these data show that physical-space search behaviours are typified by manual exploring and organised searching devices, but they are not actively used as often as compared to virtual strategies.

Table 8: Evaluation Criteria in Online Spaces

Evaluation	Frequency	Percentage (%)
Recency	262	62.4
Views/likes	214	51.0
Verified pages	146	34.8
Domain credibility	154	36.7
Cross-checking	188	44.8

The information provided in Table 8 can be useful in understanding the evaluative behaviours adopted by Generation Z when evaluating the credibility of information through online platforms. The most common of the criteria invoked is the recency (62.4%), which reflects the focus of this cohort on the latest information a trend that also corresponds to the dynamic character of digital media and their inclination to receive current information. The high dependence on views and likes (51.0%), indicates that there is a significant reliance on social proof as a heuristic on credibility, which is indicative of the widespread impact of the participatory culture on information judgments. Cross-checking information (44.8%) shows that a significant subgroup of respondents do some sort of verification activity, but the

rigor is arguably not as strict as that required by conventional academic standards. In the meantime, domain credibility (36.7%), and validation of page authenticity (34.8%), show moderation on the part of attention to authority and reliability, but these aspects do not predominate evaluation processes. Put in combination these results help to understand how the evaluative strategies of Gen-Z unite critical appraisal and socially motivated cues, which consequently demonstrates a rather sophisticated yet rather superficial attitude to the evaluation of online information.

Table 9: Affective Factors

Emotion	Virtual (%)	Physical (%)
Confident	61.4	48.2
Overwhelmed	56.0	22.4
Frustrated	44.2	31.0
Satisfied	72.3	68.1
Anxious	39.5	28.3

Table 9 shows how Gen-Z experiences information-seeking in a virtual and physical environment, indicating that Gen-Z has significant emotional differences in the virtual and physical space. Most of the participants state that they feel secure in the virtual environments (61.4), in comparison to the physical (48.2), and this fact perhaps indicates that the digital environments allow a sense of familiarity and control, which must be the case due to ease of access and user-friendly interfaces. On the other hand, respondents experience a relatively greater percentage of feeling overwhelmed online (56%) than in the physical environment (22.4), which means that the huge amount of information available in the virtual worlds can trigger cognitive overload. It is also more irritating in the virtual environments (44.2 percent to 31.0 percent), probably due to irrelevant search results, misinformation or technical difficulties. These obstacles notwithstanding, the levels of satisfaction are somewhat high in both places (72.3 and 68.1 percentage respectively) because Gen-Z is flexible or feels that resources online are more effective. The prevalence of anxiety is 39.5% in virtual and 28.3% in physical space, which shows that among the advantages of digital tools, it is also associated with the risk of feeling stressed due to information assessment and overload. On balance, the table highlights a complicated interrelation of positive and negative affective factors in defining the activity of Gen-Z in various information spaces.

Table 10: Barriers

Barrier	Virtual (%)	Physical (%)
Overload	68.3	8.1
Credibility issues	59.0	12.4
Paywalls	44.0	6.9
Limited hours	—	34.0
Unavailability	—	29.3
Poor internet	23.6	—

Table 10 outlines the main challenges faced by Generation Z in acquiring information both online and offline, thus shedding light on a significant difference in these two environments. In virtual worlds, the most visible obstacle is information overload (68.3%), which is the hallmark of the flood of easily

accessible information that hinders effective searching and evaluation. Credibility issues (59.0%) are also a significant problem, which highlights the challenge of identifying reliable sources in the area of ubiquitous misinformation on the Internet. Access is also limited by paywalls (44.0%) especially to academic or premium content. Barriers bedeviling physical settings, on the contrary, are mostly structural and rarely cognitive. Access is restricted by limited library times (34.0%) and limited resources (29.3%), whereas the issues of credibility (12.4%), and informational overload (8.1%) are significantly reduced, which is the curated and controlled nature of physical collections. Poor internet connectivity (23.6%) is also a drawback to virtual information retrieval particularly in less technological areas. Overall, it is possible to note that the data indicates that virtual spaces pose the biggest challenges related to the amount and the quality of information, whereas physical spaces are limited by accessibility and availability, which emphasizes the complementary but distinct roles, each setting plays in the information-seeking habits of Gen-Z.

Table 11: Satisfaction Scores

Space	Mean	SD	Percentage
Virtual	4.12	0.81	82.4
Physical	3.76	0.94	75.2

Table 11 outlines the level of satisfaction generated among GenZ consumers with relation to virtual and real information space using mean and standard deviation (SD) as the main descriptions metrics. The mean, which can be represented as the five-point Likert scale, is used to measure the central tendency of satisfaction, but the SD measures the variation of the responses of the individual, around the mean. The mean score of satisfaction in virtual spaces is 4.12 with an SD of 0.81 indicating that the cohort tends to provide a high level of satisfaction, and the scores are dense towards this high level of satisfaction. This means that when we translate this into percentage terms the level of satisfaction is around 82.4% satisfaction (4.12 / 5 x 100) thus shows a strong positive appreciation of virtual information environments. On the other hand, the average satisfaction of the physical spaces is 3.76, SD=0.94 indicating a moderate level of satisfaction with a slight deviation compared to the virtual state. This accounts to about 75.2% satisfaction, which means that although physical resources are not losing their value, they are viewed as slightly less convenient, efficient, or more accessible than virtual ones. The relatively low SD of virtual spaces indicates a greater level of consistency of the affirmative ratings of the respondents, and the SD of physical spaces indicates a greater range of outcomes of the experience among Gen-Z users. Taken together, these results highlight a strong propensity towards virtual information environment, which is displayed in the form of a greater average satisfaction and a more consistent positive view.

Table 12: Preferred Mode for Deep Study

Mode	Frequency	Percentage
Physical books	196	46.7
PDF/e-books	156	37.1
Videos	48	11.4
Mixed	20	4.8

Table 12 shows the desirable study processes among Gen-Z respondents in the event of deep learning or in-depth academic study. Physical books became the most popular modality as it was chosen by 196 respondents (46.7龟%), which highlights the timeless appeal of physical resources to concentrate on a specific topic, think critically, and memorize information. The next to be used were PDF and e-books, where 156 respondents (37.1) expressed their preference of using digital versions, thus representing the ease of the generation with mobile and online reading and appreciating the need to have portability and searchability. Videos, selected by 48 respondents (11.4⁝.%), can demonstrate that audiovisual content has an auxiliary function in the process of understanding and especially in the case of complicated or visualized issues. A minor percentage of the respondents (20; 4.8%) said that they wanted to use a mixed method, which combines physical, digital and video based materials to maximise learning results. On the whole, the results indicate that although Gen-Z is digitally oriented, hardcopy books are still a part of the intensive study, whereas digital tools and multimedia include in the learning experience are auxiliary to the process, which is accompanied by accessibility, interactivity, and cognitive efficiency.

7. Findings

The article investigated the information-seeking behaviour of Generation Z in relation to both the physical and virtual domain, and the patterns of usage, motivation behind it, strategies used, evaluation of the information, the affective reactions, obstacles, and the level of satisfaction were analysed systematically. Demographic analysis revealed that the sample had nearly equal gender distribution with females outnumbering males (50.0 0.0% vs. 47.1 0.0%), and a small proportion (2.9 0.0%) of the population was non-binary or did not want to specify their gender. The distribution age indicated that most respondents were of the age group between 1921 years (37.1 %) and 2224 years (30.0 %) which was an indication of the early adulthood age group. In terms of level of education, the majority of the respondents were undergraduates (52.9 %), then higher secondary (24.3 %), and graduate level learners (22.9 %), implying that the sample is composed of a highly academic and young demographic.

The intensity of usage of diversified information spaces denoted a sharp inclination to virtual space. The most used tool was search engines with 86.0 per cent of the people using them on a daily basis followed by social media (74.1 per cent). The prevalent frequency of the use of academic databases was weekly (28.1 %), monthly (34.8 %), but the frequency of use per day was minimal in physical libraries (6.4 %). These results highlight an extreme level of digital orientation in Gen Z, whereby physical libraries have a secondary, task-involved role.

This digital bias was further supported by the choice of preferable source of information. The top search engine used by the respondents was Google and other similar search engines, at 68.1 % and YouTube and other video sites, at 19.5 %. Minorly less popular were social media, physical library, and peer consultation, with a 5.2= percentage, 4.3= percentage, and 2.9= percentage respectively. This trend shows that Gen-Z gives convenience, speed, and accessibility priority over traditional or human sources during the initial information search.

The factors that motivated participation in virtual spaces were motivational. Primary drivers were listed as fast access (84.8-percent), mobile availability (76.7-percent), multimedia content (70.0-percent), variety of sources (62.4-percent) and peer recommendations (51.9-percent). Physical spaces on the other hand were selected mainly due to credibility (50.5 % and quiet study (47.1 %), lesser percentages were motivated by serendipitous discovery (22.9 %), assignment requirements (35.2 %) and librarian

assistance (18.1 %). This dichotomy is an example that the virtual space has made virtual spaces preferable due to the speed and convenience, but the physical space has a more important role in focused, credible, and structured studies.

Search strategy analysis showed that in virtual environments, short keywords (79.5%), searches in the first few results (63.8%), and YouTube searches (70.5) were most prevalent, and less frequent were cross-checking websites (58.1) and advanced search (17.6). Physical-space techniques were noted to be focused on shelf-browsing (57.6 per cent.), use of tables of contents or indexes (50.5 per cent.), and use of references (43.3 per cent.), but the use of opac search and librarian help was moderately applied. These results suggest that the preference of online strategies is intuitive and fast, whereas physical spaces favour the use of structured, exploratory, and bibliographic ones.

Online information evaluation found recency (62.4 percent), views/likes (51.0 percent), and cross-checking (44.8 percent) to be the most frequently used criteria with domain credibility (36.7 percent) and verified pages (34.8 percent) being less common. It implies that Gen-Z frequently uses heuristics, including popularity and immediacy, but not the authority validation, which might present an issue of information literacy.

The affective factors showed a greater confidence (61.4 per cent) and satisfaction (72.3 per cent) in virtual space than in physical space (48.2 per cent confidence; 68.1 per cent satisfaction) though a stronger sense of being overwhelmed (56.0 per cent) and being frustrated (44.2 per cent) was more common online. Online (39.5 %) anxiety levels were moderately more than in physical space (28.3) which pointed out that despite the convenience of using virtual space, it provokes cognitive or emotional stress.

Analysis of barriers revealed that virtual spaces were predominantly challenged by information overload (68.3 percent), issues of credibility (59.0 percent) and paywalls (44.0 percent), whereas structural constraints were the primary challenge in physical spaces (limited hours (34.0 percent) and unavailability of resources (29.3 percent). Bad internet (23.6 %) only impacted on the virtual access and not on the physical libraries.

These patterns were supported by satisfaction scores, a higher mean satisfaction of 4.12 (SD 0.81 82.4) was obtained in virtual space than on 3.76 (SD 0.94 75.2) in physical space. Lastly, preferences towards in-depth studying reported that almost half of all respondents preferred physical books (46.7 %), then PDF/e-books (37.1 %), videos (11.4 %), and mixed methods (4.8 %) which implies that despite such an approach, digital first, physical resources are essential to intensive academic activity.

In general, the results demonstrate that Gen-Z strengths lie in a strong inclination towards virtual locations based on convenience, speed, mobility, and multimedia content because physical locations are still significant in terms of credibility, in-depth study, and systematic learning. The search strategies, evaluation standards, affective responses, and barriers represent a generation that is digitally savvy but faces the problems with information overload and critical evaluation, which is why the information literacy programmes should be improved.

8. Recommendations

On the basis of our findings and as per the world knowledge, we recommend the universities, libraries, educators, and policymakers to do the following:

- **Digitise Infrastructure:** Upgrade Wi-Fi at the campuses and ensure that there is good access to online databases. Considering that GenZ uses internet search, it is important that it has a stable inter

net connection. This also relates to the 61 per cent that remains offline in the country.

- **Enhance online library interfaces:** Re-Design library catalogues and e-resource portals in user-centred design.
- **Include Social Media:** Use social media to market the library. Take the example of Instagram/ Tik-Tok to showcase library services or tell about new books as many students get information through social feeds.
- **Provide Information literacy Training:** Prepare brief workshops or curriculum units on how to assess the information on the Internet and how to use library resources. Focus on digital literacy and research abilities in order to counter the trend of using shallow sources.
- **Keep Print Collections:** Keep spending on popular print materials. Since Gen Z still favors print over in-depth reading, libraries are advised to carry core textbooks and journals particularly in disciplines like humanities.
- **Market Hybrid Learning Resources:** Substitute material with digital. As an example, enable students to book library books online and offer them e-book options, and suit all the tastes.
- **Carry out Periodic Reviews:** Survey the shifting preferences of Gen Z. The services offered by librarians must be updated (e.g., it is possible to introduce new apps) in accordance with the student feedback due to the rapid evolution of technologies.
- **Support Collaborative Spaces:** Design technologically outfitted comfortable study areas at libraries. Gen Z seeks physical areas to work and to use technology; group rooms and charging stations can be the key to interest even digitally-oriented students.
- **Foster Community Outreach:** It is necessary to engage GenZ by organizing events (e.g. coding clubs, game nights in libraries) to make the library more than books. Activities that involve non-reading attract youth and expose them to sources of information.
- **Bridge Digital Divide:** The policymakers ought to increase the availability of affordable broadband in the country. Government and institutions can provide data subsidies or free Wi-Fi areas so that all students can have the same access to digital information.
- **The following points imply collaboration:** teachers are to include information-seeking projects involving the usage of the online and library sources, librarians need to liaise with the IT department, and university administrators have to acknowledge the importance of information access as a contributor to student success.

Conclusion

In our comparative analysis, we can state that undergraduates of Generation Z in Dhaka interact with virtual and physical information space, but the priorities are different in each case. In effect, practically every student uses the internet and social networking sites daily to use the speed and convenience of the internet to their advantage. When utilizing online resources, which include the digital libraries and e-journals, they do this extensively, academic wise. On the physical side, over fifty percent of them are frequent users of campus libraries, especially to conduct thorough research and to use print in-books. In reality, Gen Z combines information sources in an expedient way: quick fact-checking is carried out through Google or YouTube more complex tasks require visiting the library or reading printed books.

These trends highlight how GenZ are digital natives who were born after 1995. As earlier research indicates, speed and acquaintance compel a large proportion of students to internet sources, but the elements of physical trust and routine usage still keep a group of patrons attending libraries. The most

important point that guided our thinking is that the information ecology of Gen Z cannot be adequately captured by a dichotomy of a digital and an analog world; instead, it lies on a hybrid continuum. Both worlds are essential: virtual platforms will satisfy urgent interests, whereas the brick-and-mortar establishments will be a rich experience and feeling of belonging.

The practice implications are quite evident: the teachers are encouraged to notice that the concept of information literacy has both online and offline skills. Universities need to make sure that their digital facilities are well maintained, i.e., high-speed Wi-Fi, user-friendly library web interfaces, and at the same time maintain a well-equipped study area. Librarians can make the library a complementary space, a showroom of products which GenZ may later buy or use online. Most importantly, our results are pointing to the fact that this generation will not be served by one channel only; the policies and services should be multidimensional.

The research in the future should observe how such patterns will change with the increasing connectivity. In the current case, though, our evidence is that in the transitional environment of Bangladesh, a mixed information environment is the most appropriate to benefit Gen Z.

References

1. American Library Association. (2023, November 1). *New ALA report: Gen Z & Millennials are visiting the library and prefer print books*. https://www.ala.org/news/2023/11/new-ala-report-gen-z-millennials-are-visiting-library-prefer-print-books
2. Banu, A. R., Tresha, T. K., Chowdhury, S. S., & Srabonty, S. N. (2024). Online library interfaces: A user-centered study on design and functionality preferences of Gen Z users. *Journal of Creative Writing, 8*(3), 40–57. https://doi.org/10.70771/jocw.130
3. Click, K., & Schwartz, N. (2018). Trending now: News habits of Generation Z. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3408021
4. DataReportal. (2023). *Digital 2023: Bangladesh*. https://datareportal.com/reports/digital-2023-bangladesh
5. Devi, K. S., Nurkamilah, S., Mazidah, Z. R., Ilmi, B., Saefullah, R. S., Kurniasih, R. I., & Nurlistiani. (2024). The utilization of social media by Generation Z in information seeking: A systematic review. *Proceedings of ICOLIS 2024, KnE Social Sciences, 9*(12), 362–373. https://doi.org/10.18502/kss.v9i12.15866
6. Franco, A., & Birenboim, A. (2024). The interrelations between virtual and physical spaces: The case of smartphone usage among adolescents. *Annals of the American Association of Geographers, 114*(9), 1948–1967. https://doi.org/10.1080/24694452.2024.2367675
7. Hassoun, D., et al. (2025). Motivations behind Gen Z's news sharing on social media: A PLS-SEM study in Vietnam. *Frontiers in Psychology, 16*, Article 1604723. https://doi.org/10.3389/fpsyg.2025.1604723
8. Howlader, A. I., & Islam, M. A. (2019). Information-seeking behaviour of undergraduate students: A developing country perspective. *IFLA Journal, 45*(1), 1–12. https://doi.org/10.1177/0340035219842312
9. Kuhlthau, C. C. (1991). Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science, 42*(5), 361–371.
10. Rajaguru, H., Sani, M. K. J. A., Sahid, N. Z., & Ismail, M. A. (2025). Information behavior and library resource use among Generation Z undergraduates. *International Journal of Research in Infor*

mation Science and Software, 9(10), 5756–5771. (Advance online publication)

11. Sani, M. K. J. A., Sahid, N. Z., & Ismail, M. A. (2025). *Information behavior and library resource use among Generation Z undergraduates*. *International Journal of Research in Information Science and Software, 9*(10), 5756–5771.