

Navigating Misinformation: Information Behavior and Heuristic Decision-Making Among Generation Z Students in Academic Libraries

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Abstract

Generation Z, the first generation to grow up fully immersed in digital technology, exhibits unique patterns of information behavior shaped by continual online engagement and social media use. This conceptual paper explores how heuristic decision-making affects American Generation Z students' evaluation of information in academic contexts. Drawing from current research in library and information science, the paper identifies four prevalent heuristics in Gen Z's information-seeking behavior: appeals to authority, form, popularity, and preconceived ideology. These heuristics, reinforced by the fast-paced and visually driven nature of digital environments, can both aid and hinder critical information evaluation. The paper examines how these behaviors intersect with issues of misinformation and the perception of credibility within academic libraries, where students may assume all resources are inherently reliable. In this context, librarians must design intentional, adaptive information literacy instruction that acknowledges students' digital habits while fostering deeper critical engagement with information. This analysis asks information professionals to treat Gen Z's digital habits as the cognitive foundation from which they build further information behavior, and to design adaptive information literacy instruction accordingly.

Keywords: Generation Z, information behavior, heuristic decision-making, misinformation, information literacy, academic libraries, digital natives, credibility assessment

Article Type: Conceptual Paper

Introduction

Colloquially known as Generation Z (Gen Z), Americans born between the mid-1990s and 2010s can be considered *digital natives*, a term coined to describe those who have grown up speaking the digital language of computers, the internet, and social media as their native tongue (Prensky, 2001), having grown up immersed in digital technology and culturally shaped by an environment saturated in social media, smartphones, and continual online connection

(Marty, 2022). This generation's intellectual development is characterized by their distinct digital habits showing a greater prioritization of social connectivity and the integration of online tools in everyday information searching behavior (Hu et al., 2022). With the understanding that modern undergraduates have been educated alongside this unprecedented access to information through the internet, their reliance on *heuristic decision-making* – the use of mental shortcuts to simplify complex judgements – and digital habits developed through social media

usage may affect their ability to evaluate resources critically.

Gen Z's tendency to rely upon digital platforms for news, research, and socialization may encourage this heuristic information evaluation pattern, and academic information may similarly be interpreted through surface-level judgments, such as presentation or authority (Dalal et al., 2025). These patterns have been observed among Gen Z students across a variety of national contexts (Kolawole et al., 2025) and are especially pronounced among American undergraduates navigating academic research environments for the first time (Dalal et al., 2025). This learned information behavior could make them vulnerable to *misinformation*—inaccurate information presented as accurate—even within trusted academic environments (Yesmin, 2023). Credibility through the eyes of this cohort will be informed by their digital experiences prior to receiving academic information literacy instruction, and thus these interventions should be tailored to fit within the context of the modern student's pre-developed digital habits. Academic libraries must play a proactive role in information literacy education, guiding students beyond surface-level evaluations and toward a deeper engagement with information, no matter the context.

This paper examines how heuristic decision-making shapes the information behavior of American Gen Z undergraduates in academic library contexts, with particular attention to four heuristics prevalent in this population: appeals to authority, form, popularity, and preconceived ideology. By situating these patterns within the broader landscape of digital media use, social media influence, and misinformation in academic libraries, this analysis emphasizes the importance of developing information literacy instruction that is genuinely responsive to the cognitive realities of a generation formed by their digital experiences, with implications that extend to the increasingly digital cohorts who will follow them into higher education institutions.

Heuristic Decision-Making in Information Evaluation

Heuristic decision-making refers to the cognitive shortcuts that individuals employ to simplify complex decision-making processes (McGeough & Rudick, 2018). With the overwhelming quantity of information made accessible in the digital age, heuristic decision-making plays a crucial role in how Gen Z undergraduates evaluate resources. Heuristic strategies allow individuals to quickly navigate information with the lowest possible mental investment, and undergraduate students of the information age often employ these strategies to minimize the efforts needed to evaluate resources (Marty, 2022; Schwieder, 2016).

Certain heuristics have been identified as more prevalent in the digital native generation than others: the appeal to authority, the appeal to form, the appeal to popularity, and the appeal to preconceived ideology (McGeough & Rudick, 2018). Students often rely on these simple mental shortcuts to make quick credibility judgments without deeply analyzing the content of the information provided. These cognitive shortcuts may lead students to equate credibility with surface-level indicators, such as professional formatting or recognizable sources, which can limit their ability to critically engage with information (Dalal et al., 2025; Schwieder, 2016).

These four main heuristics in information-searching behavior among Gen Z undergraduate students may be best described as motivated by the “principle of least effort,” an assumption in information science that individuals typically choose the easiest way to accomplish any given task (Musgrove et al., 2018; Schwieder, 2016). Quick heuristic decision-making found in Gen Z undergraduates' research behaviors implies that students tend to prioritize speed and convenience over critical engagement with information, turning to tools like Google and selecting from the top results without fully evaluating the quality or credibility of sources (Dalal et al., 2025; Marty, 2022; McGeough & Rudick, 2018;).

Appeal to authority can sometimes be a reliable metric in which a user determines credibility, being that the highest authorities in a field are often experts that can provide accurate information (Musgrove et al., 2018). However, some students may find authority in aspects of the presentation or location of that information, rather than in the nature of the source itself. One undergraduate student interviewed in a McGeough & Rudick (2018) study on heuristic patterns in information decision-making justified their source selection by telling the researchers: “It was at the library; therefore, it must be credible [. . .].” While the student later acknowledged that their reliance on the academic library as sources of authority may not have been well-founded, they still used the source in question without further scrutiny. This ambiguity in the difference between who produced the information and how the information was accessed presents a difficult challenge for academic libraries to navigate. Even more complex challenges emerge when considering the impact of the use of an appeal-to-authority heuristic as generative artificial intelligence tools increasingly produce content without any human intervention, even further undermining students’ ability to apply their learned authority-based heuristics (Sebastian, 2025).

Further heuristic behaviors inspired by digital environments, such as the appeal to form, can be less reliable in critical evaluations of academic research. The appeal to form has manifested in a variety of ways throughout the development of accessible information, such as the inherent trust that the public placed upon print newspaper publishers as a “form” of reliable information in the early twentieth century. A digital native has experienced many forms and formats of content by the time they begin academic research, and studies consistently show that a well-developed, high-quality user interface may signal higher credibility to student evaluators than the actual quality of the information it presents (Dalal et al., 2025; Sarkar, 2023; Yesmin, 2023). This indicates that the aesthetic appeal of information has become a

credibility metric that students use to validate resources – one that disadvantages the many educational and scientific institutions constrained by limited resources for graphic design and web development.

The appeal to popularity has also been thoroughly ingrained in modern students through their digital experiences. Popularity is a valuable commodity in social media, and it is not distributed based upon credibility. The “viral” nature of algorithmically boosted digital content will expose users to the most popular content available (Sarkar, 2023), and the validity of the information shared is not a relevant factor in that popularity. Studies report, however, that the public’s judgement of credibility is itself shaped by popularity, since well-known and widely circulated resources tend to receive higher credibility ratings regardless of their actual credibility (Blockside & Primeau, 2023).

Another heuristic commonly found in Gen Z’s undergraduate population is the appeal to preconceived ideology. This heuristic in academic settings is not novel to modern students and is the most difficult to untangle from the intentional research process due to the inherent cognitive bias that all humans bring to information evaluation (Atman Uslu & Yildiz Durak, 2022; Leeder, 2019). Users are more likely to value a resource that aligns with their preconceived beliefs, and this tendency is compounded in the modern information environment by the sheer volume of electronic resources available to confirm virtually any position (Schwieder, 2016). Dalal et al. (2025) note that even students who self-report high confidence in their source evaluation abilities frequently demonstrate difficulty distinguishing between authoritative sources and those that simply align with their existing knowledge or assumptions, stressing how deeply ideological heuristics can resist formal instruction.

Influence of Social Media and Digital Environments

The transfer of heuristic-based searching from digital environments to academic settings can provide insights in Gen Z's engagement with academic information. With social media and digital spaces encouraging the truncation of information through short-form content, "clickbait" article headings, and the algorithmic weight of biased content, developing minds learning how to filter and value information in this context can be especially vulnerable to developing poor information-seeking strategies (Colón-Aguirre & Fleming-May, 2012; Leeder, 2019). A modern student's familiarity with quick, low-effort searches in digital media platforms informs their academic information behaviors, making them more likely to use heuristics even in situations that would normally demand a higher level of scrutiny (Atman Uslu & Yildiz Durak, 2022; Schwieder, 2016).

Social media networks were not always designed to feed users the most user-friendly information possible, and other generations, as well as the eldest Gen Zs, will likely remember the rapid user interface development of social networking websites throughout the last twenty years. Miltner and Gerrard (2022) offer a useful perspective here, observing that early platforms like Myspace encouraged users to learn and apply HTML and CSS to customize their profiles, a feature that is now remembered nostalgically as an era in which young people developed genuine technological skills through platform engagement. In its earliest development, digital systems required a meaningful degree of learning to navigate and understand. At some point in the early twenty-first century, human-computer interaction design began shifting toward creating the most intuitive user interfaces possible, with the lowest degree of learning required for the highest degree of usability. This established doctrine in web design and programming gave rise to the current tailor-made algorithms in social media, allowing users to experience relevant content with little-to-no information search behavior in mass quantities (Sarkar, 2023).

This fast-paced, high-volume nature of modern digital environments has shaped the way that

Gen Z interacts with information. Some studies have found that modern undergraduate students may be more skeptical of claims without substantive sources or evidentiary value, suggesting a higher level of scrutiny than previous generations, likely due to their exposure to and suspicion of online sponsored posts or propagandistic content (Blocksidge & Primeau, 2022; Breakstone et al., 2022; Yesmin, 2023). Others argue that constant exposure to online content during students' cognitive development may lead to difficulties distinguishing between credible and non-credible sources when consuming information in digital spaces by relying too heavily on heuristic biases (Breakstone et al., 2022; Leeder, 2019; Yesmin, 2023).

Even with this wide spectrum of findings relating to Gen Z's ability to critically evaluate content online, one consensus is that this generation experiences high rates of information overload (Atman Uslu & Yildiz Durak, 2022; Breakstone et al., 2022). Students have reported being easily overwhelmed by the vast array of information available online, and even the most critical students report using heuristic strategies to mitigate their *internet anxiety* (Hsiao et al., 2017; Marty, 2022; Schwieder, 2016). Findings suggest that undergraduates who self-report higher rates of anxiety about navigating online environments tend to be less effective in developing a critical approach to information-seeking (Hsiao et al., 2017). When students are anxious or overwhelmed, they tend to rely more heavily on appeals to authority and appeals to familiarity as cognitive shortcuts, potentially leading to the spread and acceptance of misinformation (Leeder, 2019; Schwieder, 2016).

Misinformation in Academic Libraries

While academic libraries have long been championed as trusted hubs of credible and reliable information, it is not feasible to maintain collections of exclusively accurate information. Modern libraries face significant challenges in identifying, managing, and excluding content of questionable quality, especially under demand-driven collection development policies that often

lack the oversight of a trained librarian (De Paor & Heravi, 2020). Libraries are not immune to misinformation, and these challenges are compounded by students placing inherent trust in library-hosted resources (McGeough & Rudick, 2018).

Because libraries are built upon a foundational pillar of providing equitable access to all information, these institutions inevitably include information that is factually inaccurate or harmful (Eva & Shea, 2017). Collection development strategies used by librarians emphasize “selection, not censorship,” meaning that library professionals may have the power to select materials for their collection, but they often may not consider the factual content, bias, or informational quality of the material as a qualifying factor in that selection process (De Paor & Heravi, 2020; Yesmin, 2023). The censorship of any material does not align with the values of librarianship, and this is the avenue in which misinformation can find its way into academic library catalogs.

Educational Interventions and Critical Information Literacy

Information literacy education has long been identified as the most effective way to combat misinformation (Atman Uslu & Yildiz Durak, 2022; Breakstone et al., 2022; De Paor & Heravi, 2020; Eva & Shea, 2017; Leeder, 2019; McGeough & Rudick, 2018). Many academic libraries are improving their marketing of information literacy programming to combat misinformation using eye-catching posters, simple infographics, social media posts, and even credit-bearing courses. These tools allow academic libraries in the twenty-first century to capture the attention of Gen Z undergraduate students while delivering intentional instruction designed to teach students how to identify and navigate misinformation across all contexts (Eva & Shea, 2017). Research consistently shows that embedding information literacy programming into the digital spaces that Gen Z already inhabits produces a more meaningful engagement than traditional stand-alone library

instruction sessions (Dalal et al., 2025; Kolawole et al., 2025).

Information literacy programming encourages students to engage in deeper critical thinking, which has been shown to reduce students’ reliance on heuristic-based searching (Atman Uslu & Yildiz Durak, 2022; Schwieder, 2016). However, the effectiveness of such programming depends on whether it accounts for the specific heuristic patterns that Gen Z students bring into academic settings. Many information literacy frameworks assume a traditional, ideal information-seeking process in which a student poses a question, searches deliberately, evaluates sources methodically, and arrives at a well-reasoned conclusion. For a generation whose relationship with information was formed through social media feeds, algorithmic recommendations, peer validation, and AI chatbots, that ideal model may not reflect how this generation actually encounters and processes information in practice (Sebastian, 2025). Conventional approaches to information literacy instruction tend to prioritize retrieval efficiency and efficacy, which leaves the social and emotional dimensions of information behavior largely unaddressed. Instruction that does not account for why students reach for cognitive shortcuts in the first place is unlikely to meaningfully reduce their reliance on them.

Certain lessons related to metaliteracy, the integration of information literacy into all areas of information behavior, have become standard within the library science discipline. According to the Association of College & Research Libraries’ *Framework for Information Literacy in Higher Education* (2016), “Metaliteracy demands behavioral, affective, cognitive, and metacognitive engagement with the information ecosystem.” This framework encourages libraries to position information literacy concepts in programming as an active behavior for students to engage in all areas of information retrieval, including in digital environments. The Frameworks’ explicit inclusion of affective and metacognitive dimensions is especially significant in the context of Gen Z instruction, as it creates space within formal library pedagogy to

address the emotional experience of information overload and internet anxiety, conditions that are directly implicated in students' increased reliance to heuristic shortcuts (Hsiao et al., Schwieder, 2016).

As generative artificial intelligence tools become increasingly embedded in students' research and information-seeking behaviors, information literacy instruction faces a new and urgent challenge. AI-generated content disrupts the conventional heuristics that students have developed for evaluated sources because it produces information without an identifiable human author, a traceable institutional affiliation, or a verifiable publication record (Sebastian, 2025). Students who have learned to value the perceived authority of a source are particularly vulnerable to accepting AI-generated content uncritically, especially when presented through a polished and intuitive interface that activates the appeal-to-form heuristic simultaneously. Information literacy programming that does not explicitly address the epistemological challenges posed by generative AI risks leaving students underprepared for the information landscape they already inhabit (Kolawole et al., 2025).

Conclusion

Academic librarians are in a unique position to observe and respond directly to this digital native user population as the cohort enters higher education institutions, and this provides opportunities to tailor information literacy instruction to this population's strengths and weaknesses (Latham, 2022; McGeough & Rudick, 2018). Analysis shows that the digital generation of undergraduate students have learned information behavior strategies through social media and digital environments that both assist in academic research and hinder their ability to identify reliable source material, while also experiencing high levels of information overload and internet anxiety (Blocksidge & Primeau, 2023; Given, 2002; Hsiao et al., 2017). Their everyday information behavior, informed by rapid, algorithmically tailored social media content and the principle of least effort, now influences their academic behavior - - from

relying upon quick Google, AI, or Wikipedia searches to trusting that "if the library has it, [then] it must be credible," (Colón-Aguirre & Fleming-May, 2012; Given, 2002; McGeough & Rudick, 2018).

Heuristic decision-making informs information behavior in all individuals because the human brain relies upon using these shortcuts to manage the energy demands of everyday information processing (Schwieder, 2016). The way that individuals develop heuristics is dependent upon previous information interactions, and Gen Z is the first generation to have developed while learning heuristics primarily from modern digital spaces (Hu et al., 2022; Marty, 2022). These online environments are engineered to require the least amount of information search behavior and learning possible, prioritizing volume and engagement over accuracy and depth (Prensky, 2001; Sarkar, 2023). The four heuristics examined in this paper – appeals to authority, form, popularity, and preconceived ideology – are predictable outcomes of the information environments in which this generation's cognitive habits were formed, and should not be treated as the moral or academic failures of individual students. Librarians must engage in intentional instruction with these digital practices and experiences in mind.

That task has grown more complex with the widespread proliferation of generative artificial intelligence tools, which introduces a new category of credibility challenge that sits outside the logic of every conventional source-evaluation heuristic that students have learned to apply (Sebastian, 2025). A generation already inclined to shortcut authority judgements and trust polished interfaces now encounters information that is simultaneously authorless and optimized for engagement. Information literacy instruction that does not explicitly address this issue is preparing students for an information environment that no longer exists.

By remaining mindful of both the challenges and possibilities for students with constant information stimulation, academic libraries can

be prepared to tailor critical information literacy programming to young minds that are always searching for more. While these students bring with them an innate curiosity and a desire to engage with information, they often struggle with the overwhelming volume of content and the cognitive shortcuts they have developed to manage it. Libraries can play a pivotal role in shaping a generation of informed, thoughtful young people by leveraging students' natural affinity for information and channeling it into practices that prioritize credibility over convenience. This necessitates the design of intentional, adaptive instruction that both acknowledges these novel information behaviors and fosters critical thinking and evaluative skills. In doing so, librarians and information professionals can take these challenges as an opportunity to redefine the role of academic libraries as essential partners in navigating the complexities of the modern age of digital information.

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