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Scientific Access, 2026, 2(2), 84-94
https://www.hillpublisher.com/journals/sa/
ISSN Online: 3068-7500

A Conceptual Framework for AI-mediated Information Practices

Sofia Stamou

Department of Archives, Library Science and Museology, Ionian University, Ioannou Theotoki 72, Corfu 49100, Greece.

How to cite this paper: Sofia Stamou. (2026) A Conceptual Framework for AI-mediated Information Practices. *Scientific Access*, 2(2), 84-94.
DOI: 10.26855/sa.2026.06.002

Received: April 28, 2026
Accepted: May 26, 2026
Published: June 30, 2026

***Corresponding author:** Sofia Stamou, Department of Archives, Library Science and Museology, Ionian University, Ioannou Theotoki 72, Corfu 49100, Greece.

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Abstract

The rapid adoption of generative artificial intelligence (AI) is changing how individuals seek, evaluate, interpret, and produce information, creating new demands on established literacy frameworks. This article examines the conceptual relationship among information literacy, AI literacy, and the emerging concept of prompt literacy. Through a conceptual synthesis of the relevant literature, it develops a framework that distinguishes the primary orientations, contributory relationships, and shared competencies of the three domains. The analysis argues that prompt literacy should not be understood as a successor to, or replacement for, information or AI literacy, nor as a synonym for prompt engineering. Rather, its distinctiveness is configurational: it concerns the coordinated mobilization of information- and AI-related competencies within iterative human–AI interaction. The framework identifies critical evaluation, verification, ethical and responsible use, and human agency as cross-cutting dimensions of AI-mediated information practice. Implications for libraries and information professionals are discussed, particularly in relation to user education, information evaluation, and responsible engagement with generative AI. As a conceptual framework, the model is not empirically validated; rather, it provides a basis for future research, assessment, and educational development concerning prompt literacy and its relationship to established literacy domains.

Keywords

Information literacy; prompt literacy; generative AI; AI literacy; conceptual framework

1. Introduction

Information literacy has long been recognized as a foundational competence for engaging critically and effectively with information. It encompasses the ability to recognize information needs, locate and evaluate relevant information, understand the contexts in which information is produced, and use information appropriately and ethically [1-3]. Contemporary approaches have consequently moved beyond viewing information literacy as a set of techniques for finding information and have emphasized contextual judgment, critical evaluation, responsible use, and the social and epistemological dimensions of information practices [4]. These competencies remain important in increasingly complex information environments, but the emergence of generative artificial intelligence (AI) is changing the conditions under which information-related activities are performed.

Generative AI systems, particularly large language models, enable users to interact with computational systems through natural-language exchanges in which outputs can be generated, transformed, summarized, compared, reorganized, and refined. Users therefore participate more directly in shaping the content produced through information

systems, rather than simply locating and evaluating information produced elsewhere [5, 6]. This shift has contributed to growing interest in AI literacy, broadly understood as the knowledge and competencies required to understand, use, and critically evaluate AI systems and their outputs [7, 5]. AI literacy extends established information-related competencies by introducing attention to the characteristics, capabilities, limitations, and sociotechnical implications of AI systems [6].

Interaction with generative AI also introduces a more specific dimension of information practice. Users must translate an information or knowledge goal into an instruction, provide relevant context, assess the resulting response, and refine the interaction when the output does not adequately address the intended purpose. This has led to emerging interest in prompt literacy [8-10]. Although prompt literacy is sometimes associated with the technical construction or optimization of prompts, such a view is too narrow to capture the broader competencies involved in purposeful and responsible human–AI interaction. Effective engagement may require prompt formulation as well as contextualization, monitoring, refinement, evaluation, verification, and judgment concerning whether an AI-generated response is appropriate for the user's information or knowledge goal.

The conceptual relationship among information literacy, AI literacy, and prompt literacy, however, remains insufficiently articulated. In particular, treating these literacies as successive stages—from information literacy to AI literacy and ultimately to prompt literacy—risks implying that each emerging literacy supersedes the previous one. Such an interpretation overlooks the substantial overlap among their competencies. Information seeking, critical evaluation, verification, ethical responsibility, and human judgment remain relevant when users engage with AI, while understanding AI systems can influence how users formulate and manage interactions with them. Prompt literacy therefore cannot be understood simply as a separate inventory of skills added to established literacy domains.

This article instead conceptualizes the relationship among the three domains as interconnected and partially overlapping. Information literacy remains principally concerned with the identification, seeking, evaluation, and responsible use of information; AI literacy emphasizes understanding AI systems, their capabilities and limitations, and their outputs; and prompt literacy concerns the purposeful management of interaction through which an AI system is asked to generate or transform content in pursuit of an information or knowledge goal. From this perspective, the distinctiveness of prompt literacy is configurational rather than additive: its contribution lies not primarily in introducing an entirely new set of competencies, but in how information- and AI-related competencies are coordinated and mobilized within iterative human–AI interaction.

Against this background, the article has four objectives:

(1) to clarify the conceptual relationship among information literacy, AI literacy, and prompt literacy;

(2) to define prompt literacy as an interactional competency that organizes and mobilizes relevant competencies within generative-AI-mediated information practices;

(3) to develop a conceptual framework that distinguishes and maps domain-specific, contributory, and shared competencies across the three domains; and

(4) to examine the implications of this framework for libraries and information professionals supporting critical, informed, and responsible engagement with generative AI.

The framework is developed through a conceptual synthesis of literature on information literacy, AI literacy, and emerging work on prompt literacy. The analysis does not empirically test the relationships among the three domains or claim to provide a validated measurement model. Rather, it brings together existing conceptualizations to identify areas of continuity, overlap, and distinction and organizes these relationships into an integrated framework. Particular attention is given to critical evaluation, verification, ethical and responsible use, and human agency as dimensions that may operate across the three domains while taking different forms according to the object and purpose of the activity. The framework is consequently intended as a theoretically grounded basis for further empirical investigation, educational development, and professional practice rather than as a definitive taxonomy of prompt-literacy competencies.

The remainder of the article is organized as follows. Section 2 reviews the conceptual foundations of information literacy, AI literacy, and prompt literacy and examines their points of intersection. Section 3 develops the proposed conceptual framework and maps the relationships among the three domains. Section 4 discusses implications for libraries and information professionals, with particular attention to information evaluation, education, and responsible engagement with generative AI. Section 5 concludes by summarizing the conceptual contribution, limitations, and directions for future research.

2. Literature Overview: Information Literacy, AI Literacy, and Prompt Literacy

2.1 Information Literacy in Changing Information Environments

Information literacy has developed as a broad conceptual and educational framework for enabling individuals to engage critically and effectively with information. Early formulations emphasized the identification of information needs, information seeking, evaluation, and appropriate use [1, 2], while subsequent approaches have increasingly situated these practices within social, contextual, and epistemological dimensions of information use. The ACRL Framework for Information Literacy for Higher Education, for example, conceptualizes information literacy through a set of interconnected frames that emphasize the contextual nature of authority, information creation as a process, the value of information, research as inquiry, scholarship as conversation, and searching as strategic exploration [11, 12]. This broader understanding positions information literacy not simply as a set of techniques for finding information but as a capacity for making informed judgments about information and participating responsibly in information environments.

The literature has consequently associated information literacy with competencies that extend from recognizing information needs and constructing appropriate search strategies to evaluating sources, understanding the contexts in which information is produced, and using information ethically and responsibly [13, 14, 3]. Although frameworks vary in terminology and emphasis, critical evaluation, contextual judgment, and informed use consistently occupy a central position.

The emergence of generative AI does not invalidate this conceptual foundation. Rather, it introduces an information environment in which established information-literacy practices must be exercised in relation to generated content. Generative AI systems can produce fluent and contextually plausible responses without necessarily providing transparent evidence of how particular claims were generated or whether they are accurate. Consequently, information evaluation in AI-mediated environments may involve examining generated content, considering its evidential basis and provenance where available, and determining when independent verification is warranted. Recent discussions of generative AI in library instruction similarly suggest that established information-literacy frameworks remain relevant while requiring extension or reinterpretation in relation to AI-mediated information practices [11].

2.2 AI Literacy: From Understanding AI to Evaluating AI-Mediated Outputs

The emergence of AI literacy reflects attempts to identify the knowledge and competencies required for people to understand and engage critically with artificial intelligence. Long and Magerko [7], drawing on interdisciplinary literature, conceptualize AI literacy through competencies related to understanding AI concepts, recognizing how AI systems work, evaluating and interacting with AI, and understanding their broader social implications. Ng et al. [5] similarly propose a multidimensional conceptualization incorporating knowledge and understanding, application and creation, evaluation, and ethical considerations. These approaches indicate that AI literacy is broader than the ability to operate AI-enabled tools: it involves understanding the characteristics of AI systems and critically assessing their implications and outputs [15].

This perspective becomes particularly relevant with generative AI. Users interacting with large language models need to understand that these systems do not function simply as conventional information retrieval mechanisms. Rather, they generate responses based on learned patterns and the interaction established with the user, and their outputs may therefore be incomplete, inaccurate, biased, or otherwise unsuitable for the intended purpose. AI literacy consequently includes awareness of system capabilities and limitations and the ability to interpret generated outputs critically [2, 5, 16, 6].

The relationship between AI literacy and information literacy is therefore complementary rather than substitutive. Information literacy directs attention primarily toward information needs, sources, evidence, evaluation, and responsible use, whereas AI literacy introduces greater attention to the technological systems through which AI-mediated information is generated and to the implications of using such systems. The distinction is nevertheless not absolute. AI-literacy frameworks may already incorporate interaction, evaluation, and forms of AI use, and prompting strategies may reasonably be regarded as one component of broader AI literacy. Consequently, prompt literacy cannot be defined simply by identifying competencies that AI literacy supposedly excludes.

A more useful distinction concerns the primary object and function through which overlapping competencies are organized. AI literacy is principally concerned with understanding and critically engaging with AI systems as

technological and sociotechnical entities, including their capabilities, limitations, operation, implications, and outputs. Prompt literacy, by contrast, focuses on the user's management of an evolving interaction with generative AI in pursuit of a particular information or knowledge goal. This involves translating an objective into an interaction, selecting and providing relevant context and constraints, monitoring the system's response, judging its adequacy in relation to the intended purpose, and adapting subsequent interaction when necessary. These activities may draw directly upon AI-literacy knowledge, but their focus is the management of the interaction rather than the understanding of AI as such.

2.3 Prompt Literacy as an Emerging Area of Research

The concept of prompt literacy is comparatively recent and remains less theoretically established than information literacy or AI literacy. Hwang et al. [8], for example, conceptualize prompt literacy as involving the ability to formulate precise prompts, interpret AI outputs, and iteratively refine prompts to achieve desired results. Their work is particularly relevant because it moves beyond a purely technical understanding of prompting and emphasizes the iterative and collaborative character of human–AI interaction. Other emerging discussions similarly associate prompt literacy with the formulation of effective instructions, contextualization, specificity, refinement, and evaluation [9, 10].

This emerging literature suggests that prompting is better understood as an ongoing process than as a single technical act. An interaction may begin with the formulation of a request but subsequently involve assessing the response, identifying inaccuracies or omissions, modifying the request, adding contextual information, introducing constraints, and reassessing the resulting output. Prompting thus involves a feedback process in which user intention, system response, and user evaluation continually influence one another. Research on learning to prompt has likewise connected prompting practices with users' developing understanding of both the possibilities and limitations of generative AI systems.

At the same time, the literature reveals variation in the scope attributed to prompt literacy. Some conceptualizations place considerable emphasis on the ability to construct effective prompts, while others associate prompting with broader processes of communication, problem-solving, interpretation, and human–AI collaboration. This variation indicates that prompt literacy remains an emerging concept rather than a settled competency framework. A broader conceptualization is useful if prompt literacy is to account for the process through which users formulate goals, communicate with AI systems, evaluate responses, and adapt subsequent interaction.

A related distinction concerns prompt literacy and prompt engineering. Prompt engineering generally refers to the deliberate design and optimization of prompts to influence model behavior or improve the performance of a generative AI system [17]. Prompt literacy, in contrast, can be conceptualized from the perspective of the user's purpose and the interactional process. It involves understanding what one seeks to accomplish, translating that objective into an appropriate interaction, supplying relevant context and constraints, interpreting the resulting output, identifying shortcomings, refining the interaction, and deciding whether the output is sufficiently reliable and appropriate for the intended use.

This distinction is important because effective prompting is not necessarily an end in itself. A technically well-constructed prompt can still produce information that is inappropriate, inaccurate, unsupported, or irrelevant to the user's actual purpose. Prompt literacy therefore intersects with information evaluation and AI understanding. The user must recognize what information is needed and what constitutes an adequate response; understand enough about the AI system to recognize its capabilities and limitations; and manage the interaction in ways that improve the relevance and usefulness of the resulting output.

2.4 Interconnections among Information, AI, and Prompt Literacy

The literature reviewed above points to substantial conceptual overlap among the three domains. Although information literacy, AI literacy, and prompt literacy emphasize different objects and functions, their competencies can be activated simultaneously in AI-mediated information practices. Information literacy contributes attention to information needs, sources, evidence, and responsible use; AI literacy contributes understanding of AI systems, their capabilities and limitations, and their outputs; and prompt literacy foregrounds the purposeful management of interaction with generative AI.

For example, a researcher using a generative AI system to explore a topic may first need to identify an information requirement and determine what would constitute an adequate response. This involves information-literacy

competencies. The researcher may then need to determine whether the AI system is appropriate for the task, understand its relevant capabilities and limitations, and critically assess the reliability of its output, drawing on AI literacy. At the same time, the researcher may formulate an initial prompt, provide contextual information, specify constraints, assess the response, and refine the interaction in light of the results. These activities illustrate the interactional dimension associated with prompt literacy.

The boundaries among the three domains are therefore permeable: a single activity may simultaneously mobilize competencies associated with more than one literacy. The literature consequently supports distinguishing the primary orientations of the three domains while recognizing that their competencies may be combined and mutually supportive in AI-mediated information practices. Section 3 develops this distinction through the proposed conceptual framework.

3. Conceptual Framework: Information Literacy, AI Literacy and Prompt Literacy

3.1 Conceptual Synthesis and Framework Formulation

The framework proposed in this article is grounded in a conceptual synthesis of literature addressing information literacy, AI literacy, and emerging work on prompt literacy. The purpose of the synthesis is not to empirically test relationships among the three domains or to establish the effectiveness of particular competencies. Rather, it is to develop a theoretically informed account of how established and emerging literacy concepts relate to one another within AI-mediated information practices. The framework brings together existing conceptualizations to identify areas of continuity, distinction, and overlap and to organize them into an integrated account of the competencies involved in purposeful human–AI interaction.

The synthesis proceeds from the observation that the three literacies have developed from partly different research traditions and consequently emphasize different objects and purposes of activity. To compare these domains systematically, the conceptual synthesis considers four analytical dimensions:

(1) the primary object of activity,
(2) the principal purpose of the activity,
(3) the cognitive and practical processes through which it is performed, and
(4) the forms of evaluation, responsibility, and judgment involved.

These dimensions provide a common basis for examining both differences and relationships among the three literacies. They also make it possible to distinguish competencies according to their primary association with a particular domain while recognizing that competencies may be mobilized across domains in AI-mediated information practices.

On this basis, the framework distinguishes among primary, contributory, and shared competencies. Primary competencies are those most directly associated with the central object and purpose of a literacy. Contributory competencies are competencies emphasized within another domain that become relevant to, and support, the effective enactment of a given literacy in an AI-mediated context. Shared competencies are competencies that operate substantially across all three domains, although their object or function may differ according to the activity in which they are applied. These categories are analytical rather than exclusive: a competency classified as primary within one domain may also contribute to another, while shared competencies may take different forms across information, AI, and interactional contexts.

The framework therefore treats the three literacies as interconnected and partially overlapping rather than hierarchical or sequential. Information literacy contributes to identifying information needs and evaluating information; AI literacy supports understanding of the systems through which information or content is generated; and prompt literacy organizes relevant competencies within an iterative interaction directed toward a particular information or knowledge goal.

The framework also identifies critical evaluation, verification, ethical and responsible use, and human agency as cross-cutting dimensions. These are not treated as additional literacy domains or as competencies belonging exclusively to one category. Rather, they represent modes of judgment and responsibility that operate across the three domains. Their object and function may vary: evaluation may concern the quality of information, the capabilities and limitations of an AI system, or the adequacy and evidential basis of a generated response; verification may involve

checking sources, system outputs, or claims produced through interaction; and ethical responsibility and human agency may concern how information and AI-generated content are interpreted, used, and acted upon.

3.2 Mapping the Three Literacy Domains

The three literacy domains can be distinguished according to their primary object and function while remaining conceptually interconnected. Information literacy is primarily concerned with identifying information needs, locating and evaluating information, and using it appropriately. AI literacy concerns understanding AI systems, their capabilities and limitations, and the critical interpretation of AI-generated outputs. Prompt literacy concerns the purposeful management of interaction with generative AI through prompt formulation, contextualization, refinement, and evaluation.

The distinction can be summarized through three questions:

1. **Information literacy:** What information do I need, and how can I assess its quality and relevance?
2. **AI literacy:** What can the AI system do, what are its limitations, and how should its outputs be interpreted?
3. **Prompt literacy:** How should I formulate, contextualize, and refine the interaction to achieve my information or knowledge goal?

These distinctions identify the primary orientation of each domain rather than separate or sequential stages. In practice, the competencies associated with the three literacies may be activated simultaneously. A user interacting with generative AI may need to identify an information need, understand the system's capabilities, formulate an appropriate prompt, evaluate the resulting output, verify relevant claims, and decide how the information should be used.

Table 1 maps the primary, contributory, and shared competencies across the three domains. The mapping illustrates their conceptual interdependence while preserving the distinctive orientation of each literacy.

Table 1. Information literacy, AI literacy, and prompt literacy: primary, contributory, and shared competencies

Literacy domain	Primary competencies	Contributory competencies	Shared competencies
Information literacy	Information-need identification; information seeking; source selection; source evaluation; responsible information use	Understanding AI capabilities and limitations	Critical evaluation; verification; ethical and responsible use; human agency
AI literacy	Understanding AI concepts and capabilities; recognizing limitations and biases; interpreting AI-mediated outputs; understanding sociotechnical implications	Information evaluation; information seeking; prompt formulation and refinement	Critical evaluation; verification; ethical and responsible use; human agency
Prompt literacy	Goal formulation; prompt formulation; contextualization; specifying constraints; interaction management; iterative refinement; response evaluation	Information evaluation; AI-system understanding and information seeking	Critical evaluation; verification; ethical and responsible use; human agency

3.3 Domain-Specific, Contributory, and Shared Competencies

The distinction among primary, contributory, and shared competencies clarifies which competencies are most closely associated with each domain while recognizing that effective AI-mediated information practices frequently require their combined use.

Primary competencies are those most directly aligned with the central object and purpose of a domain. In information literacy, these include identifying information needs, seeking and evaluating information, and using information appropriately. In AI literacy, they include understanding AI systems, recognizing their capabilities and limitations, and critically interpreting AI-generated outputs. In prompt literacy, they include formulating, contextualizing, monitoring, and refining prompts and interactions in relation to a specific information or knowledge goal.

Contributory competencies originate primarily within one domain but support effective practice in another. For example, information evaluation contributes to prompt literacy when users assess the relevance and reliability of generated responses, while understanding AI capabilities contributes to prompt literacy by informing decisions about what to request and how to interpret system outputs. Such relationships are reciprocal rather than hierarchical: competencies may move across domains according to the requirements of a particular activity.

Shared competencies operate substantially across all three domains. Critical evaluation, verification, ethical and responsible use, and human agency are particularly important in this category. Their function, however, is not identical in every context. Evaluation may concern information sources, AI systems, or generated outputs; verification may involve checking evidence, claims, or system responses; and human agency concerns maintaining informed judgment and control over how information and AI-generated content are interpreted and used.

3.4 Prompt Literacy as an Interactional Layer

The distinctive contribution of prompt literacy does not lie primarily in introducing competencies that are absent from information literacy or AI literacy. Rather, its distinctiveness lies in how these competencies are organized and mobilized within an iterative human–AI interaction. The object of prompt literacy is therefore not simply information or the AI system itself, but the evolving interaction through which a user communicates an objective, provides context and constraints, evaluates a response, and modifies subsequent interaction.

This interactional orientation gives prompt literacy analytical distinctiveness without requiring it to be treated as a separate or higher-order literacy. Competencies such as goal formulation, contextualization, information evaluation, understanding system limitations, and exercising judgment are distributed across the broader literacy domains. What distinguishes their application in prompt literacy is their coordinated use within an interaction in which user input can influence the subsequent generation and transformation of information.

Prompt literacy is therefore broader than prompt engineering. Prompt engineering focuses primarily on designing and optimizing instructions to influence model behavior or output performance. Prompt literacy includes prompt formulation but situates it within a wider information practice: users must determine what they are trying to achieve, decide what context and constraints are relevant, assess the resulting response, recognize when verification or further information seeking is required, and decide whether to revise, supplement, accept, or reject the output.

The concept can consequently be understood as an interactional layer through which information- and AI-related competencies are brought together and applied in practice. It identifies the point at which overlapping competencies are coordinated in response to the specific conditions of generative AI interaction.

3.5 An Integrated Model of Information, AI, and Prompt Literacy

The proposed framework conceptualizes information literacy, AI literacy, and prompt literacy as interconnected and recursively activated domains within AI-mediated information practice. Figure 1 integrates these relationships around an iterative process in which users formulate goals, interact with generative AI, evaluate outputs, verify information when necessary, and make decisions about subsequent action.

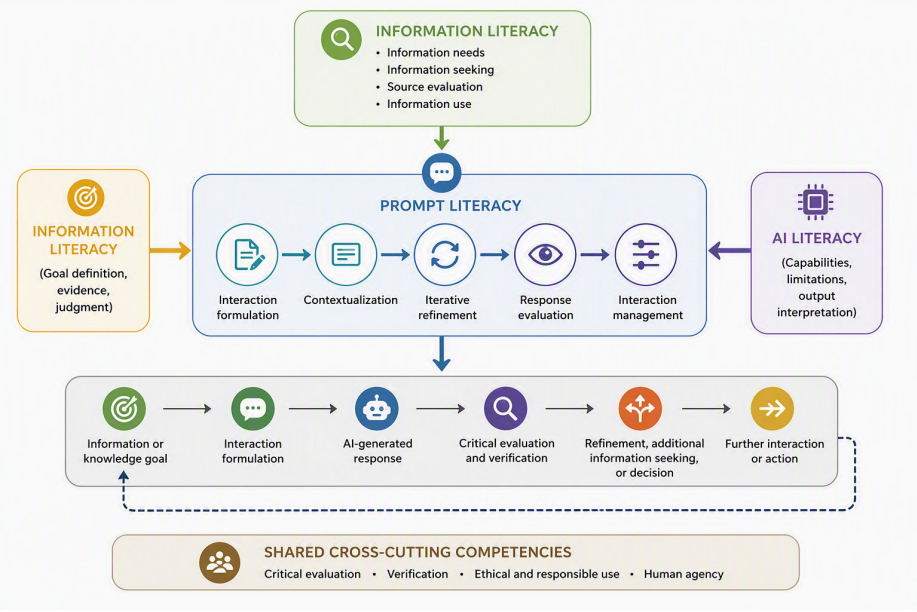

Figure 1. The conceptual framework architecture, illustrating the relationships among information, AI, and prompt literacies.

An information or knowledge goal may provide the starting point for the process. Information literacy contributes to identifying and clarifying the need, locating relevant information, and establishing criteria for evaluating information and evidence. AI literacy contributes an understanding of the system's capabilities, limitations, and characteristics and supports critical interpretation of its outputs. Prompt literacy enables users to translate an intended goal into an interaction, provide relevant context and constraints, monitor the response, and refine the interaction according to its performance.

The process is recursive rather than linear. An AI-generated response may satisfy the user's objective, but it may also reveal an information gap, ambiguity, inaccuracy, or insufficient evidential support. The user may consequently refine the prompt, request clarification, seek additional information, verify claims against external sources, revise the original objective, or reject the output. Each action may generate new information that informs subsequent interaction and evaluation.

Figure 2 represents this process at a more operational level. The sequence should not be interpreted as a fixed pathway: users may enter the cycle at different points, and evaluation may lead to actions other than further prompting, including external information seeking, verification, task reformulation, or rejection of the generated content.

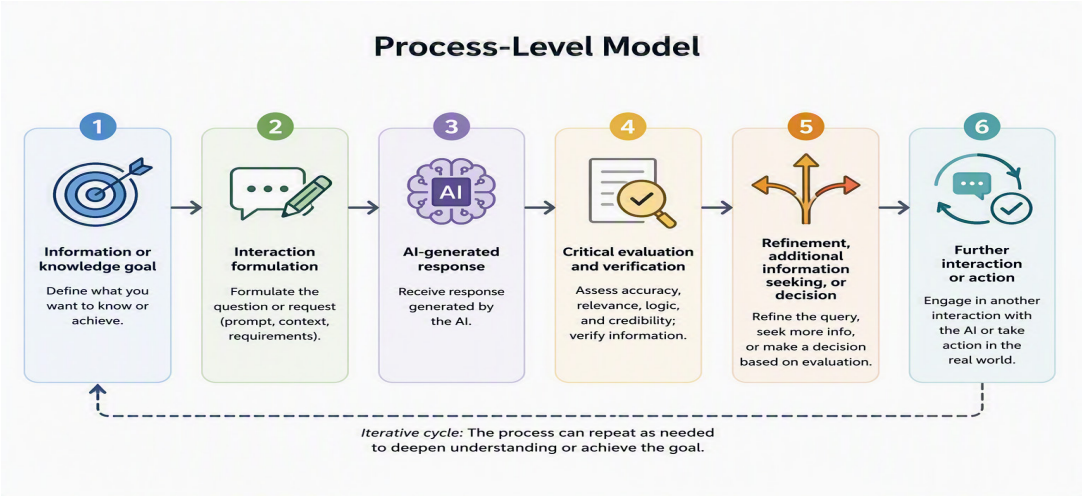

Figure 2. The process of iterative human–AI interaction of the proposed framework.

Taken together, the two models position prompt literacy as an interactional layer within the broader landscape of information and AI literacy. Its function is to enable users to coordinate relevant competencies during interaction with generative AI while maintaining critical evaluation, verification, responsible use, and human agency.

3.6 Cross-Cutting Dimensions: Critical Evaluation, Verification, Ethical and Responsible Use, and Human Agency

Four dimensions cut across the three literacy domains and provide a common evaluative and normative layer within AI-mediated information practice: critical evaluation, verification, ethical and responsible use, and human agency. These dimensions are not additional literacy domains. Rather, they qualify how competencies from information literacy, AI literacy, and prompt literacy are exercised in practice.

Critical evaluation concerns questioning the relevance, accuracy, completeness, credibility, and evidential basis of information, AI systems, and generated outputs. Verification extends this process by requiring claims or generated content to be checked against appropriate evidence when warranted. This distinction is particularly important in generative AI environments, where fluent and plausible outputs do not necessarily indicate factual reliability.

Ethical and responsible use concerns the appropriate handling of information and AI-generated content, including issues of privacy, bias, intellectual property, attribution, transparency, and disclosure. Human agency emphasizes that users remain responsible for defining objectives, interpreting outputs, exercising judgment, and deciding whether and how generated content should be used.

Together, these dimensions ensure that the framework is concerned not simply with producing effective AI interactions, but with evaluating their outcomes, determining when further verification is necessary, and maintaining

informed human judgment and responsibility throughout the process. They therefore provide a cross-cutting layer connecting the competencies identified in the framework.

3.7 Theoretical Status and Future Research

The proposed framework is intentionally conceptual and does not claim empirical validation or constitute a definitive competency model applicable across users, disciplines, or generative AI environments. Its purpose is to provide a theoretically grounded structure for distinguishing the primary orientations, contributory relationships, and shared competencies of information literacy, AI literacy, and prompt literacy, while positioning prompt literacy as an interactional configuration within AI-mediated information practice.

The framework therefore provides a basis for subsequent empirical work. Future research should operationalize and assess the proposed competencies, examine how they are acquired and applied across different contexts, and test whether the proposed relationships and distinctions are supported empirically. Such work may refine, extend, or reconfigure the framework as evidence accumulates.

4. Implications for Libraries and Information Professionals

The proposed framework has implications for libraries and information professionals because it positions prompt literacy within established information- and AI-literacy practices rather than as a separate technical skill. Libraries already support information seeking, source evaluation, research assistance, information organization, and responsible information use [18, 19]. These competencies provide a foundation for supporting users as information practices increasingly involve interaction with generative AI. The relevant task is therefore not simply to teach users how to formulate effective prompts, but to support the broader process of defining information needs, managing AI interactions, evaluating outputs, verifying evidence, and exercising informed judgment.

One practical implication concerns prompt education and resources. Libraries may develop structured prompt examples, templates, and repositories for activities such as literature discovery, research-question formulation, information analysis, and summarization. Their value, however, should extend beyond providing ready-made prompts. Users should also learn why a particular prompt is appropriate, how it can be adapted to different information needs, and how its resulting outputs should be evaluated. Prompt education can therefore be integrated into existing information-literacy instruction as an iterative practice rather than presented as a technical exercise in prompt optimization [20].

A second implication concerns the relationship between AI-generated outputs and information sources. Generative AI applications may incorporate retrieval mechanisms, including Retrieval-Augmented Generation (RAG), that connect generation with external information resources. This makes source selection, provenance, authority, retrieval, and evidence particularly relevant to AI-mediated information practices. These concerns align closely with established library expertise. Libraries can help users understand where retrieved information originates, how sources contribute to generated responses, and why retrieval does not itself guarantee accuracy or reliability. Users must still evaluate the quality and relevance of sources and verify whether generated claims are adequately supported.

A third implication concerns critical evaluation and verification. Librarians have traditionally supported users in identifying relevant sources, assessing credibility, comparing information, and recognizing bias and limitations. These practices remain relevant when users encounter AI-generated responses that may be inaccurate, incomplete, outdated, or misleading. Information professionals can therefore extend established evaluation practices to AI-generated content by helping users assess accuracy, relevance, completeness, source quality, bias, and evidential support. Effective prompting is consequently connected to the ability to judge the quality and suitability of the resulting response.

Finally, libraries have a role in the ethical and responsible dimensions of AI-mediated information practice. Issues including misinformation, bias, intellectual property, attribution, privacy, transparency, and appropriate use of AI-generated content can be incorporated into library-based information- and AI-literacy initiatives. Such instruction can help users consider when AI is appropriate for a particular task, what information should be provided to an AI system, how generated material should be verified or attributed, and when human expertise should take precedence. Information professionals may consequently act as mediators among users, AI systems, and information resources, while continuing to develop professional knowledge in generative AI, prompting practices, output evaluation, and retrieval-based systems.

5. Concluding Remarks

The increasing use of generative artificial intelligence (AI) is changing how individuals seek, evaluate, interpret, and produce information. In increasingly AI-mediated environments, information practices involve not only locating and assessing information but also interacting with systems that can generate and transform content in response to user input. This development highlights the need to reconsider how established literacy frameworks relate to emerging forms of AI-mediated interaction.

This article has examined the conceptual relationship among information literacy, AI literacy, and prompt literacy and proposed a framework that positions them as interconnected rather than sequential or hierarchical domains. The framework distinguishes their primary orientations while identifying contributory and shared competencies across them. Its central proposition is that prompt literacy is configurational rather than additive: its distinctiveness does not depend on an entirely new inventory of competencies, but on the coordinated mobilization of information- and AI-related competencies within iterative human–AI interaction.

The framework also identifies critical evaluation, verification, ethical and responsible use, and human agency as cross-cutting dimensions. These dimensions emphasize that interaction with generative AI cannot be reduced to producing useful outputs. Users must also determine whether outputs are appropriate and sufficiently supported, when further verification or information seeking is required, and how generated content should be interpreted and used. For libraries and information professionals, the framework provides a basis for integrating prompt-related practices into established information- and AI-literacy activities without treating prompt literacy as a replacement for existing competencies.

The framework is conceptual and has not been empirically validated. Its proposed distinctions and relationships should therefore be regarded as theoretically grounded propositions rather than as a definitive competency taxonomy or assessment model. Future research can operationalize the proposed competencies, develop and validate assessment instruments, and examine how information literacy, AI literacy, and prompt literacy interact across educational, professional, research, and library contexts. Such work can determine whether the proposed framework requires refinement as generative AI practices and technologies continue to evolve.

Funding

This research received no funding.

Conflict of Interest

The author declares no conflict of interest.

Data Availability

No new data were created in this study.

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