INDIAN STREAMS RESEARCH JOURNAL
ISSN NO : 2230-7850
IMPACT FACTOR : 5.1651 (UIF)
VOLUME - 15 | ISSUE - 5 | JUNE – 2025

RE-EVALUATING THE RELEVANCE OF EXISTING INFORMATION LITERACY MODELS IN THE CONTEMPORARY INFORMATION LANDSCAPE

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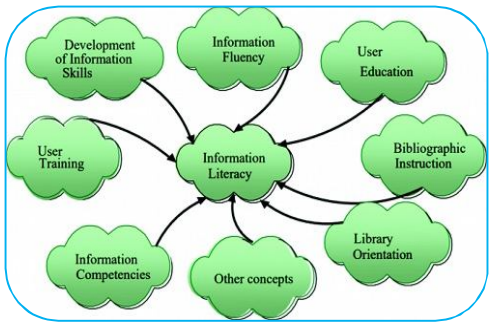
ABSTRACT



Information Literacy (IL) is an essential skill set that empowers individuals to identify information requirements, access pertinent resources, critically assess material, and effectively utilise gained knowledge. In recent decades, many information literacy frameworks, including the Big6, the SCONUL Seven Pillars, and the ACRL Framework, have been established to enhance educational and professional information practices. Nonetheless, due to the rapid expansion of digital material, algorithmic information dissemination, and increasing apprehensions over disinformation and digital manipulation, the relevance of conventional information literacy models needs thorough reassessment. This research examines the efficacy of existing IL models in navigating the contemporary and dynamic information environment. The research employs a theoretical and conceptual analytical framework to evaluate previous models, assess their limits in relation to contemporary difficulties, and provide criteria for the modernisation of IL frameworks. The research indicates that although core concepts are beneficial, there is an urgent necessity to modify or enhance current models to more effectively correspond with the digital-first, AI-driven, and socially interconnected information landscapes of the 21st century.

KEYWORDS: *Information Literacy, Models of Information Literacy, Critical Information Literacy, Digital Information Behaviour, 21st Century Competencies, Information Ecosystem, Tertiary Education.*

1. INTRODUCTION

Information Literacy (IL) has been acknowledged as a fundamental aspect of education, enabling learners to critically interact with information in many formats and across several disciplines. Initially developed at a period characterised by print media and centralised knowledge systems, IL has undergone substantial transformation with the emergence of digital technology. The American Library Association (ALA) characterises information literacy as the capacity to "identify when information is required and possess the skills to locate, assess, and utilise the necessary information effectively" (ALA, 1989). This term, while broadly recognised, was formulated in a Pre-Internet context and fails to properly address the intricacies of contemporary information landscapes influenced by artificial intelligence (AI), social media, big data, and user-generated content.

In the past thirty years, several theoretical and pedagogical models of information literacy have developed to inform instructional methods and enhance student learning. Prominent among them are the Big6 Skills model by Eisenberg and Berkowitz (1990), the SCONUL Seven Pillars model (SCONUL, 2011), and the ACRL Framework for Information Literacy for Higher Education (Association of College

& Research Libraries [ACRL], 2016). These models provide organised frameworks for traversing the information lifecycle, encompassing need identification, information appraisal, and ethical utilisation. Nonetheless, the pertinence and thoroughness of these models are being scrutinised in the context of modern concerns. The spread of disinformation, echo chambers, algorithmic personalisation, and digital monitoring has profoundly transformed individual interactions with information (Head, 2021; Andrejevic, 2020). Consequently, conventional information literacy models may be inadequately prepared to tackle the complexities of information behaviour in this swiftly changing environment. This study aims to critically assess the relevance of contemporary IL models by analysing their theoretical underpinnings, desired outcomes, and practical applicability in the present digital context. The inquiry is both contemporary and crucial, as educational institutions, libraries, and policymakers must provide individuals with not just fundamental search skills but also a comprehensive, critical, and morally informed information competence appropriate for the 21st century (Lloyd, 2010; Limberg, 2017).

2. LITERATURE REVIEW

The exploration of Information Literacy (IL) has been enhanced by the creation of several models and frameworks, each embodying the educational and technical demands of its period. This section offers a comprehensive analysis of the most prevalent IL models, examining their components, theoretical foundations, and practical ramifications. The objective is to establish a basis for assessing their present significance in a swiftly changing information environment.

2.1 The Big6 Framework

The Big6 Model, created by Eisenberg and Berkowitz in 1990, is one of the most recognised information literacy models. The framework has six essential stages: Task Definition, Information Seeking Strategies, Location and Access, Use of Information, Synthesis, and Evaluation. The methodical problem-solving strategy is particularly favoured in K–12 and undergraduate education for instructing students on how to rationally tackle information-related activities (Eisenberg & Berkowitz, 1990). Critics contend that the model may too simplify information behaviour and fails to adequately integrate the emotive and critical components essential in the contemporary digital landscape (Head, 2021).

2.2 SCONUL Seven Pillars Framework

The SCONUL model, first established in 1999 and updated in 2011, delineates seven fundamental skills: Identify, Scope, Plan, Gather, Evaluate, Manage, and Present (SCONUL, 2011). The approach provides a versatile framework that facilitates the continuous advancement of information literacy abilities across several fields. Its focus on reflective practice and adaptability to student advancement has rendered it especially pertinent in higher education (Bent & Stubbings, 2011). Nonetheless, similar to the Big6, it does not explicitly address digital platforms, disinformation, and algorithmic bias, which are essential in the contemporary information ecosystem (Andrejevic, 2020).

2.3 ACRL Framework for Information Literacy

The ACRL Framework (2016) represented a substantial transition by supplanting the previous competency criteria with a conceptual, threshold-based methodology. The six frames, including **"Authority Is Constructed and Contextual" and "Searching as Strategic Exploration,"** emphasise advanced critical thinking and comprehension of the sociocultural aspects of information (ACRL, 2016). This paradigm is lauded for its flexibility and congruence with constructivist schooling (Mackey & Jacobson, 2014). However, it presupposes a degree of informational agency that may overlook the manipulative influence of algorithms and platform economics (Noble, 2018).

2.4 The Information Search Process (ISP) Model

Carol Kuhlthau's ISP Model incorporates an emotive dimension to information seeking, highlighting the user's emotional experiences across six stages—from Initiation to Presentation (Kuhlthau, 1991). The model recognises ambiguity, perplexity, and subsequent clarity, mirroring authentic search behaviour. It is particularly impactful in user-centred library education. Nonetheless, the model predates the extensive use of social media and fails to account for the fragmented, non-linear search behaviours prevalent in contemporary contexts (Limberg, 2017).

2.5 The Seven Aspects of Information Literacy

Christine Bruce's approach (1997) delineates seven **"faces"** or modalities of experiencing information literacy: information technology, information sources, information processes, information control, knowledge production, knowledge extension, and wisdom. This phenomenographic method underscores learning as a dynamic, contextually influenced process. The paradigm is especially significant for its conceptual profundity and relevance across many educational contexts (Bruce, 2008). However, its abstract quality may complicate practical implementation within established educational frameworks.

2.6 Additional Significant Models

Alternative frameworks, such the **5As Model** (Need, Access, Evaluate, Apply, Acknowledge) and the Digital Fluency Model, have sought to elucidate and contextualise information literacy in the digital era (Lau, 2006). The Empowering **Eight Model,** created by IFLA in 2008, amalgamates information literacy with life skills education. Nevertheless, these frameworks frequently embody pre-social media and Pre-AI ideas, necessitating future progress.

2.7 Deficiencies in the Literature

Although each model provides distinct contributions, few sufficiently tackle the issues presented by contemporary dynamic, multimodal, and frequently antagonistic information environments. Significant concerns, like information overload, deception, deepfakes, surveillance capitalism, and digital inequality, are infrequently included into conventional information literacy frameworks (Noble, 2018; Vaidhyanathan, 2018). This gap highlights the necessity to reevaluate existing frameworks with consideration for technology progress and socio-political contexts.

3. Objectives of the Research

The principal objective of this theoretical study is to rigorously evaluate the applicability and significance of current Information Literacy (IL) models in meeting the challenges and intricacies of the modern information environment. The rise of digital platforms, algorithmic content curation, and manipulation of socio-political information has led to intensified scrutiny of old models about their efficacy in contemporary situations (Andrejevic, 2020; Noble, 2018; Head, 2021). This study is organised around the following precise aims to direct the inquiry:

3.1 To analyse the theoretical underpinnings and fundamental elements of prevailing information literacy frameworks, including the Big6, SCONUL Seven Pillars, ACRL Framework, and the ISP Model.

3.2 To evaluate the degree to which these models confront emerging concerns, including digital disinformation, algorithmic prejudice, surveillance capitalism, and multimodal information overload.

3.3 To assess the practical significance of these models in both formal and informal educational contexts in the post-Internet, socially networked age.

3.4 To identify conceptual deficiencies in current information literacy frameworks and examine whether modern technical and sociocultural advancements need the expansion of existing models or the establishment of new frameworks.

3.5 To provide an updated framework of evaluating criteria for information literacy models, based on concepts of critical literacy, ethical information utilisation, and digital fluency appropriate for 21st-century education.

The aims are to evaluate the current theoretical framework and to foster a discussion on the reconfiguration of information literacy pedagogies and models to address present and future information concerns (Lloyd, 2010; Limberg, 2017; Mackey & Jacobson, 2014).

4. APPROACH

This study utilises a qualitative theoretical research approach due to its conceptual character. The emphasis is on the critical analysis and synthesis of current Information Literacy (IL) models in relation to modern information concerns. The technique is based on document analysis, critical theory, and constructivist viewpoints, enabling a thorough examination of texts, frameworks, and academic discourse.

4.1 Research Methodology

This study employs a theoretical and interpretative framework, concentrating on the development, premises, and instructional ramifications of information literacy models. It does not entail empirical fieldwork or participant data gathering but instead critically assesses secondary data, including scholarly publications, books, model documentation, and policy recommendations. This design is appropriate for examining the fundamental structure and transformational capacity of IL frameworks (Mackey & Jacobson, 2014; Bruce, 2008).

4.2 Sources of Data

The data sources comprise:

- Core publications of information literacy models (e.g., ACRL Framework, SCONUL Seven Pillars, Big6 documentation).
- Scholarly publications from peer-reviewed journals (e.g., Journal of Information Literacy, Information Research, Library Trends).
- Books and monographs concerning information literacy theory and digital culture (e.g., Bruce, 1997; Lloyd, 2010; Noble, 2018).
- Recent research and publications about algorithmic impact, misinformation, and digital learning settings (e.g., Head, 2021; Andrejevic, 2020).

These materials are chosen based on pertinence, citation frequency, and scholarly repute.

4.3 Analytical Framework

The study employs the following methods for data analysis:

- Thematic Analysis: Recognising persistent patterns and conceptual intersections across information literacy models (Braun & Clarke, 2006).
- Critical Discourse Analysis (CDA): Analysing the ideological and institutional presuppositions inherent in definitions and practices of IL (Fairclough, 2013).
- Comparative Model Analysis: Assessing information literacy models based on newly established relevant criteria, including flexibility, digital fluency, equality orientation, and resilience to disinformation (Lloyd, 2010; Limberg, 2017).

4.4 Assessment Standards

The subsequent criteria govern the assessment of IL models:

- Conceptual scope (does the model extend beyond procedural search competencies?)
- Digital adaptability (does it encompass digital platforms, artificial intelligence, and social media?)
- Emphasis on critical literacy (does it enable people to interrogate authority and algorithms?)
- Ethical considerations (does it encompass data privacy, information ethics, and bias recognition?)
- Relevance across several contexts (education, professional environment, daily life)

These criteria guarantee that the analysis stays concentrated and linked with current information literacy requirements (Noble, 2018; Mackey & Jacobson, 2014).

5. CRITICAL ASSESSMENT OF INFORMATION LITERACY FRAMEWORKS

This section evaluates Information Literacy (IL) models to ascertain their current relevance in the swiftly changing digital and informational environment. This entails evaluating their strengths, weaknesses, and relevance in tackling contemporary issues like as disinformation, algorithmic filtering, multimodal content, and socio-political manipulation of information.

5.1 The Big6 Model (Eisenberg & Berkowitz, 1990)

The Big6 paradigm continues to be one of the most organised and extensively utilised process-oriented information literacy approaches. It delineates six sequential phases: task description, information-seeking tactics, location and access, utilisation of information, synthesis, and assessment.

- Strengths: Provides a coherent, methodical framework for problem-solving; applicable in K–12 and college environments (Eisenberg & Berkowitz, 1990).
- Limitations: Lacks essential understanding and flexibility to intricate digital landscapes; fails to confront algorithmic prejudice or disinformation (Julien & Williamson, 2011).

5.2 SCONUL Seven Pillars Framework (SCONUL, 2011)

This UK-based paradigm delineates seven 'pillars' of information literacy, comprising identity, scope, planning, gathering, assessing, managing, and presenting information.

- Strengths: Adaptable and comprehensive; permits learners to begin at any phase and progress gradually (Bent et al., 2007).
- Limitations: Primarily concentrates on academic environments and may inadequately consider digital platforms and real-world issues such as echo chambers or surveillance (Lloyd, 2010).

5.3 ACRL Framework for Information Literacy (ACRL, 2016)

The ACRL Framework redefines information literacy as a collection of fundamental threshold ideas, including "Authority is Constructed and Contextual" and "Searching as Strategic Exploration."

- Strengths: Integrates critical thinking, metaliteracy, and digital ethics; highlights contextual comprehension (Mackey & Jacobson, 2014).
- Limitations: Criticised for insufficient procedural clarity and assessment difficulties; educators continue to face implementation obstacles (Saunders, 2018).

5.4 Information Search Process (ISP) Model by Kuhlthau (1991)

This paradigm delineates the emotional and cognitive phases that learners experience while seeking knowledge.

- Strengths: Acknowledges the emotional aspects of research; harmonises effectively with learner-centred education (Kuhlthau, 2004).
- Limitations: Primarily applicable to academic research environments; does not address digital or algorithmic intricacies (Limberg, 2017).

5.5 Emerging Requirements and Model Deficiencies

The above stated models were developed mostly prior to the emergence of the algorithmically driven Internet, artificial intelligence technologies, and social media platforms. Principal developing concerns encompass:

- Algorithmic Bias: The majority of IL models overlook the influence of search engines and recommender systems on the appearance and accessibility of information (Noble, 2018; Vaidhyanathan, 2018).
- Multimodal Information: IL models frequently emphasise textual data, neglecting the impact of visual, auditory, and interactive media (Serafini, 2012).
- Digital Misinformation: Limited models explicitly enable users to assess deepfakes, bots, and misinformation campaigns (Guess et al., 2020; Wardle & Derakhshan, 2017).
- Privacy and Data Ethics: Conventional information law models are deficient in frameworks addressing personal data protection, digital monitoring, and ethical content generation (Andrejevic, 2020; Zuboff, 2019).
- Consequently, whereas conventional IL models provide essential skills, their significance is reduced in the absence .

6. PROPOSED STRUCTURE AND SUGGESTIONS

Upon critically assessing current Information Literacy (IL) models, it is clear that foundational frameworks such as the Big6, SCONUL Seven Pillars, and ACRL Framework provide significant pedagogical insights, yet necessitate considerable revision or enhancement to effectively tackle the intricate, digital, and algorithmic characteristics of the contemporary information landscape (Lloyd, 2010; Mackey & Jacobson, 2014). This section introduces an advanced framework provisionally named the Critical Digital Information Literacy (CDIL) Model and offers suggestions for its use in both academic and informal educational environments.

6.1 Overview of the Critical Digital Information Literacy (CDIL) Model

The CDIL Model is a hybrid theoretical and pedagogical framework that incorporates critical literacy, digital fluency, ethical awareness, and technological adaptation. It aims to enable consumers to identify and assess information while comprehending the underlying systems of power, bias, and influence associated with digital material.

Fundamental Components of the CDIL Model:

1. Contextual Authority

Stresses that credibility is context-dependent and requires careful examination based on the source, medium, and intent (ACRL, 2016; Wineburg & McGrew, 2017).

2. Algorithmic Cognisance

Promotes comprehension among learners about the influence of algorithms on content exposure and personalisation inside search engines, social media, and digital markets (Noble, 2018; Vaidhyanathan, 2018).

3. Multimodal Literacy

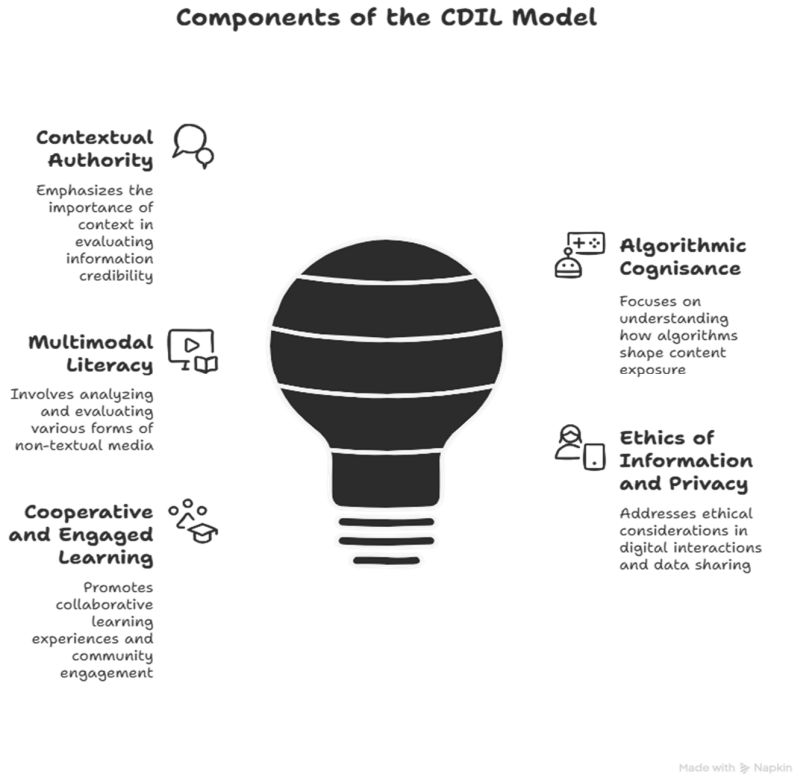
Concentrates on the analysis and assessment of non-textual media, including infographics, films, memes, and interactive platforms (Serafini, 2012; Hobbs, 2017).

4. Ethics of Information and Privacy

Encompasses understanding of surveillance capitalism, data mining, and the ethical dimensions of content generation and dissemination (Zuboff, 2019; Andrejevic, 2020).

5. Cooperative and Engaged Learning

Facilitates community-oriented learning via wikis, forums, peer networks, and open educational materials (Mackey & Jacobson, 2014).



6.2 Suggestions

6.2.1 For Educators and Educational Institutions

- Integrate Critical Digital Literacy into Curricula: Information literacy training must coincide with critical pedagogy and encompass real-world examples of misinformation, algorithmic filtering, and media manipulation (Limberg, 2017; Head, 2021).
- Employ Interdisciplinary Approaches: Collaborate across fields such as media studies, computer science, and ethics to cultivate a comprehensive knowledge of information systems.
- Advocate for Metaliteracy: Foster metacognitive reflection in learners, prompting them to not only utilise information but also scrutinise their own biases, roles, and responsibilities as both information producers and consumers (Mackey & Jacobson, 2014).

6.2.2 For Policymakers and Librarians

Revise National IL requirements to incorporate digital citizenship, platform awareness, and data rights into IL competence requirements.

- **Facilitate Professional Development:** Provide training for librarians and academics in digital pedagogy, critical theory, and instructional design.
- **Invest in Inclusive Access Technologies:** Facilitate access to devices, platforms, and culturally pertinent information resources for marginalised populations (Lloyd, 2010).

6.2.3 Pertaining to Learners

- Engage in Reflective Information Behaviour: Promote the interrogation of sources, recognition of implicit messages, and consciousness of digital traces.
- Engage in Peer-Led Information Literacy Communities: Foster participation in informal internet groups, blogs, and media criticism collectives.

7. CONCLUSION

In an age marked by the exponential proliferation of digital information, the conventional parameters and definitions of Information Literacy (IL) are swiftly evolving. The basic models—namely the Big6 by Eisenberg and Berkowitz, SCONUL's Seven Pillars, Kuhlthau's ISP Model, and the ACRL Framework—have established a substantial basis for organising information literacy training and practice. This paper has critically shown that although these models are pertinent for basic skill development, they frequently inadequately address modern challenges such as algorithmic influence, multimodal content, digital surveillance, and misinformation (Noble, 2018; Vaidhyanathan, 2018; Zuboff, 2019).

The suggested Critical Digital Information Literacy (CDIL) Model seeks to address these deficiencies by integrating essential components of algorithmic awareness, multimodal analysis, ethical information utilisation, and digital engagement. It addresses the requirements of the contemporary information ecosystem, wherein people function as both information consumers and active creators and distributors (Mackey & Jacobson, 2014).

The future of information literacy necessitates a paradigm change from procedural information acquisition to a critical, reflexive, and participatory model of lifelong learning. **This encompasses:**

- Empowering users to critically examine both the content and the mechanisms that produce and distribute information.
- Highlighting contextual authority, civic duty, and technical ethics in information literacy instruction.

Integrating information literacy into various educational and policy frameworks, empowering individuals across disciplines and communities to traverse the digital realm with independence and judgement.

As we advance into a digitally saturated world, information literacy must develop into a dynamic competency that enables learners to confront disinformation, traverse intricate platforms, and champion fair and ethical information ecosystems.

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