InfoSphere :

NAVIGATING THE WORLD OF INFORMATION

Preserving the Past, Valuing Present, Enriching the Future

UNIVERSITI TEKNOLOGI MARA

Fakulti
Sains Maklumat

InfoSphere:
Navigating the World of Information

Preface

It gives me great pleasure to present *InfoSphere: Navigating the World of Information*, a collective effort that brings together insightful discussions, empirical findings, and critical reflections from academics in information management, library management, records management, and information and communication technology (ICT).

In today's digital era, the vast and complex landscape of information continues to expand at an unprecedented pace. The convergence of technology and information systems has transformed how data is created, organized, stored, and utilized. This book aims to navigate that dynamic "infosphere" , a term that reflects the interconnected environment in which information flows seamlessly across platforms, disciplines, and contexts.

The chapters compiled here explore diverse perspectives and contemporary issues shaping the management of information resources and services. From emerging trends in digital librarianship and knowledge governance to innovations in ICT applications and recordkeeping practices, each contribution highlights the growing importance of integrating technology, policy, and human expertise in managing information effectively.

This publication also serves as a reflection of our faculty's commitment to advancing scholarship and practice in the information domain. It showcases the intellectual depth and interdisciplinary collaboration among academics who continue to shape the future of information work.

As the Chief Editor, I wish to express my sincere appreciation to all the contributing authors for their dedication and scholarly rigor, and to the editorial team for their meticulous effort in ensuring the quality and coherence of this volume. Special thanks are also extended to the Faculty of Information Science and Universiti Teknologi MARA Cawangan Johor for their continuous support and encouragement in realizing this publication.

I hope that *InfoSphere: Navigating the World of Information* will inspire readers among students, educators, researchers, and practitioners alike to engage critically with the evolving information landscape and to contribute meaningfully to its advancement.

Azura Abdul Jamil @ Kamarudzzaman
Chief Editor
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INFORMATION SKILLS IN STUDENT LEARNING AND DEVELOPMENT

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1.0 Introduction

Effectively finding, evaluating, and applying information is essential for thriving in both academic and professional environments. Despite unprecedented access to knowledge, individuals face significant obstacles, such as misinformation and information overload (Xu et al., 2020). Cultivating robust information skills is vital, not only to meet academic standards but also to enable critical thinking, problem-solving, and continuous learning throughout life. These competencies equip students to become autonomous learners, discerning consumers, and proactive citizens who shape society meaningfully.

2.0 Definition of Information Skills

Information skills, often called information literacy, have evolved considerably in response to changes in information access and societal needs. In the past, the focus was mainly on how to find and use information, particularly in libraries.

The American Library Association (ALA) provided a foundational definition in 1988, characterizing information literacy as:

> "The ability to recognize when information is needed and to locate, evaluate, and use effectively the needed information."
> (Syracuse University iSchool, 2025)

This definition highlighted the processes involved in using information, such as identifying the need, finding relevant sources, checking authenticity, and using what you learned. It is understandable that the students get a lot of information and pictures, and they really need to learn how to verify the facts they obtain (Brewer, 2023). It was especially important at a time when most information was kept in libraries in physical form, and librarians were very important in helping people find what they were looking for.

3.0 How Information Skills Support Student Learning & Development

In today's academic setting, it's very important for students to learn to use knowledge effectively to help them learn and grow as a whole. These abilities are not just extras; they are essential for doing well in school, thinking critically, and developing lifelong learning habits. Research systematically shows a strong, beneficial link between engaging in information literacy activities and getting students more involved, as well as students reporting that they are learning more (Fosnacht, 2020).

In a time when so much information is available, being able to search for, use, and critically analyze it is an important skill for the 21st century. Students who have these skills are better able to navigate the complexity of the digital world, distinguish between trusted and untrustworthy sources, and stop the spread of false information. This skill is commonly regarded as a vital university academic outcome, necessary for equipping students for the challenges of higher education and beyond.

There are a few ways to support student learning and development, which are;

3.1 Lifelong learning

Information skills help people learn about every aspect of their lives, not just in university. People can keep up with changes in knowledge areas and society by finding and processing new information on their own. This ability to learn on your own is important for your personal growth, your career, and making smart choices throughout your life.

3.2 Institutional responsibility

Educational institutions are crucial to developing these skills. According to student engagement theory, institutions must highlight and teach students how to use information while providing enough resources. This requires establishing learning environments where students spend time seeking, assessing, and using information sources. Engaging in educational activities that support learning and growth (Fosnacht, 2020). Institutions may help students become competent, ethical, and critical information consumers and creators by integrating information literacy education throughout the curriculum and providing resources.

4.0 Challenges and Barriers

Information skills are crucial, yet students typically experience several challenges. Institutional issues, resource constraints, student behaviors, and changing information might cause these barriers. Another significant challenge is;

4.1 Lack of structured information literacy training

Information literacy training is sometimes restricted to brief orientations for new students or is not explicitly incorporated into the curriculum, resulting in a lack of thorough advice on how to effectively acquire and apply these essential skills (Baidoo & Jones, 2024). This lack of structured instruction can cause differences in how well students learn new skills.

4.2 Limited access to resources

A lack of relevant, high-quality information sources, such as up-to-date desktop computers and dependable internet connections at libraries and computer centers, might limit skill development. Manual libraries that don't subscribe to e-resources limit students' exposure to different and current information forms, which are increasingly important in academic study (Baidoo & Jones, 2024).

4.3 Socioeconomic factors

Additionally, socioeconomic factors contribute to a growing digital divide. Socioeconomic status, gender, and age all affect digital access. Students from higher socioeconomic backgrounds have more home technology and information, which gives them an advantage over their peers. This gap may worsen inequality in developing information skills (Baidoo & Jones, 2024).

4.4 Self-perceived learning abilities

Student traits, including self-perception, learning anxiety, and confidence, affect information literacy learning. Studies show that anxiety and low self-confidence can distract students from studying, making information-seeking difficult. Self-efficacy, or confidence in one's ability to succeed, can either help or hinder the development of information literacy skills (Baidoo & Jones, 2024).

5.0 Strategies to Enhance Information Skills in Student Learning

Multi-faceted educational strategies and institutional support are needed to improve students' information skills. Moving from isolated instruction to a comprehensive and embedded strategy is required. There are several ways to enhance students' information skills.

5.1 Explicit Instruction and Integration

Information literacy should be included in the curricula of many specialties. This includes direct teaching on research questions, keywords, and search tools. Educators should demonstrate how to use academic databases, search engines, and complex search operators. Hands-on, active learning activities that teach information skills, such as evaluating sources, synthesizing information from diverse perspectives, and quoting correctly, are essential. One-on-one consultations, workshops, and labs can also address students' needs and provide specialized instruction.

5.2 Critical Evaluation Frameworks

Students should learn to use the TRAAP Protocol, which evaluates the timeliness, relevance, authority, accuracy, and purpose of information sources. Teaching students how to spot bias, commercial motive, and authority in information sources helps them evaluate its trustworthiness and usefulness.

5.3 Resource Provision and Access

This includes providing students with a choice of knowledge resources and the infrastructure to use them. Desktop computers and dependable internet in libraries and computer centers are essential. Libraries should also subscribe to several academic databases, journals, and e-books. Online learning communities and toolkits containing films, handouts, and interactive activities help improve information skills and accessibility.

5.4 Promoting Lifelong Learning

Promoting Lifelong Learning emphasizes that information skills are crucial for academic performance, daily life, the job, and civic engagement. These comprehensive approaches can help educational institutions foster an environment where students learn and develop critical thinking and evaluative abilities to flourish in an information-rich world.

6.0 Conclusion

Information skills are essential for helping students thrive in the 21st century (Donovan, 2009). The ability to locate, evaluate, and apply information is crucial for excelling academically, thinking analytically, and acting as informed citizens. These skills motivate students to engage, achieve, and remain lifelong learners. They also enable students to identify credible sources, recognize misinformation, and appreciate diverse perspectives in today's complex landscape.

Teaching robust information skills equips students for tomorrow. These abilities empower students to adapt, think critically, and thrive in a constantly evolving world. They also enable students to contribute positively to their communities and foster ongoing learning. As information proliferates, these skills are increasingly vital in education (Framework for Information Literacy for Higher Education, 2016).

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