



NATIONAL INNOVATION HUB • CENTRE NATIONAL D'INNOVATION



EVIDENCE SYNTHESIS:

Using Knowledge Repositories as a Knowledge Translation
Tool for Evidence Informed Decision Making

MARCH 2026

Acknowledgements: The AGE-WELL National Innovation Hub, APPTA wishes to acknowledge and thank the individuals and organizations who provided feedback in the development of this report.

How to Cite: Patterson, Patrick, Bridget McCann, Lyne Ouellet and Jenna Roddick. (2026) *Evidence Synthesis: Using Knowledge Repositories as a Knowledge Translation Tool for Evidence Informed Decision Making*. Fredericton, NB: AGEWELL National Innovation Hub – Advancing Policies and Practices in Technology and Aging.

For More Information: The AGE-WELL National Innovation Hub, Advancing Policies and Practices in Technology and Aging (APPTA) welcomes comments about this report and would like to know how we can better meet your information needs. If you have any questions about the work APPTA conducts, please contact us.

Email: info@appta.ca

Disclaimer: The authors have made every effort to ensure the information included in this document is correct and up to date, however, none of the information included is intended to substitute more recent information. The authors make no other representations or warranties, whether expressed or implied, with respect to the information in this document, and are not liable for any loss or damage arising directly or indirectly from the use of, or any action taken on the reliance on, any information appearing in this publication or in any publication by a third party that is referenced or linked to this publication.

Executive Summary

Knowledge repositories (KRs) are digital platforms designed to centralize, store, and share information, supporting evidence-informed decision making (EIDM). This report examines the role of KRs and the factors that influence their development, implementation, and use.

KRs function as “one-stop” platforms that support the collection, storage, retrieval, and dissemination of knowledge. Successful implementation of a KR involves 3 steps: 1) gaining organizational support and defining its scope, 2) establishing the platform and populating it with content, and 3) ensuring ongoing maintenance and updates.

There are two main methods for adding information to KRs: 1) deposits by staff members, and 2) self-archiving. Most KRs rely on deposits by staff members, which ensures systematic updates of relevant information. Self-archiving reduces staff time and associated costs because knowledge producers add their work directly to the KR.

Key challenges when operating a KR include low organizational priority, limited leadership support, and resource constraints. Challenges related to content contribution are also common, particularly in self-archiving models where knowledge producers may face time constraints, lack of incentives, and concerns about copyright or misuse of their work. Technological barriers, such as complex interfaces and limited interoperability, can further reduce usability.

At the same time, several factors facilitate successful KR implementation and use. Strong leadership support, user-friendly design, and effective search and retrieval functions improve accessibility. Incentives, mandatory self-archiving, and active promotion can increase participation and engagement, while alignment with organizational workflows supports sustained use.

Despite their potential, there is limited evidence about the direct impact of KRs on policy and practice. While usage data suggest that repositories are accessed and valued as information sources, their influence on decision making is difficult to measure.

Overall, KRs are a tool that can support access to and use of knowledge, but their success depends on sustained organizational support, ongoing resource investment, and engagement from both knowledge producers and users.

Table of Contents

Executive Summary	3
Introduction	5
Background.....	5
Knowledge Repositories	6
Knowledge Repository Development	6
Step 1: Gain support and define the scope	6
Step 2: Set up the platform and add content	7
Step 3: Maintain and update the platform	8
Core Functions of Knowledge Repositories	8
Core Function 1: Finding and adding relevant information.....	8
1.1 The Staff Deposit Approach	9
1.2 The Self-Archival Approach.....	9
Table 1: Core Function – Finding and Adding Information	10
Core Function 2: Storing Knowledge	11
Table 2: Core Function – Preserving Knowledge	11
Core Function 3: Information Indexing and Retrieval.....	11
3.1 Technological Barriers and Facilitators	12
3.2 User Perception Barriers and Facilitators	13
Table 3: Core Function – Indexing and Retrieval	13
Core Function 4: Spreading Knowledge	14
Table 4: Core Function – Spreading Knowledge	14
Knowledge Repository Impacts.....	15
Conclusion.....	15
Figure 1: Repository Core Functions Cycle.....	16
Appendix 1: Review Methods.....	18
References.....	19

Introduction

Knowledge is an important resource that contributes to an organization's capacity to take effective action^{1,2}. Knowledge repositories are information technology systems designed to support the use of knowledge by providing a central information source. These systems are particularly valuable to organizations and decision makers involved in developing government programs and policy initiatives. This report provides an overview of existing literature on knowledge repositories and the factors that hinder or facilitate their implementation and use as a tool for evidence-informed decision making.

Background

One way government organizations use knowledge is for evidence-informed decision making (EIDM), which involves gathering and synthesizing evidence so that it can be used for policy or practice³. Knowledge transfer and exchange (KTE) is defined as "an interactive process involving the interchange of knowledge between research users and researcher producers"⁴: pg.72⁹. KTE aims to support EIDM and identify policy-relevant questions to guide research agendas^{3,4}. KTE also reduces organizational vulnerability to knowledge loss and improves productivity by making information more easily accessible¹.

Practicing EIDM and KTE can be challenging for both individual users and organizations. Policymakers interested in applying new knowledge may struggle with unfamiliar research methods, academic jargon, research that is not practice-focused, and long waits for research results⁴. Organizational culture can also inhibit KTE through internal power dynamics, conflicts and politics^{2,4}. Weak communication between people or organizations that produce knowledge (e.g., researchers) and those that use it (e.g., policymakers) can present obstacles to timely knowledge sharing². Additionally, individuals may struggle to stay current with evidence, find relevant information in databases, track and save search results, or access evidence published in journals that require subscriptions³.

Online platforms for distributing knowledge can help address many of the challenges associated with KTE and EIDM. Online platforms make evidence more accessible by reducing time and cost barriers for end users³. Within academic communities, online archives are important for

the open access movement⁵⁻⁸, reducing access barriers⁹ and increasing the visibility of academic work^{6,10,11}. Beyond academia, online platforms are a communication technology that can make knowledge more accessible for non-academic audiences^{1,4,12-18}.

Knowledge Repositories

Knowledge repositories (KR) are a type of knowledge management system^{3,7,14,19,20} where users deposit information and others retrieve it for application or learning^{1,7,12,21}. KRs are used in KTE to improve information access and knowledge sharing^{7,8,10,22-27}. They can facilitate EIDM by serving as “one-stop-shop” information sources about specific topics^{14,24}. Some KRs are created and maintained by private sector organizations for use by employees²¹. Publicly accessible KRs that governments can use in EIDM efforts are typically run by universities, non-profit organizations, or government agencies.

Integrating a KR into an institution’s wider community can be challenging^{7,25,28}. When KRs are a low priority in the organization, a repository is likely to struggle. A study in New Zealand noted that a large proportion of academic staff were unaware of KRs operated by their own universities⁵. Similarly, a study of the Association of Academic Health Sciences Libraries in US and Canada found that participants often said that low priority or lack of demand was the reason libraries did not have KRs²⁷. The views of organization leaders are important in determining how a KR operates and is used^{8,19}, and lack of support from administration is identified in multiple studies as a barrier to KR success^{7,8,27}. Studies also often describe how support from the institution’s leadership and an organizational culture that values using the KR are important for success^{8,28} and improving KR performance^{3,13,15,25}.

Knowledge Repository Development

Like any other applied technology, development of a KR passes through stages.

Step 1: Gain support and define the scope

A KR initiative requires that the organization which hosts the repository will commit resources for its development and maintenance¹¹. If a KR is to be implemented through a collaboration, support must be mobilized in all participating organizations¹⁵.

Next, KR developers need to clearly define the scope of the information that the repository will include. For example, when McMaster University developed the Evidence-Informed Healthcare Renewal Portal, the team used scoping review processes to define the topic and ensure that included content would be relevant^{13,29}. Other KRs, such as the Palliative Care Law and Policy GPS in the United States¹⁵ and the McMaster Optimal Aging Portal³⁰, followed similar approaches and outlined their scopes early in the development process.

KR developers often organize content in categories to help users find information that is relevant or meaningful to them^{13,15,24}. Some developers classify KR content according to their own criteria, while others draw on existing systems used by organizations such as the World Health Organization²⁴. In some cases, developers design KRs to be flexible, so that they can add new categories¹⁵. Content category planning overlaps with deciding how information will be presented. One approach is to use templates that provide consistent summaries of archived works^{3,15}. Further, involving stakeholders who can provide input about their needs can be helpful when planning KR content categories and information presentation^{13,16}.

Step 2: Set up the platform and add content

Setting up and populating a KR with content involves choosing a suitable technology platform. A range of features are important to consider, such as the technological infrastructure in the organization, software, interface usability, and interoperability of selected technology⁸. While technology is essential, a study examining repositories hosted by universities noted that factors, such as which software was selected, had relatively low gaps between desired and actual performance⁸. This suggests that a variety of high-capacity information technology systems are able to meet KR operation needs.

Once a KR platform is in place and information has been uploaded, developers often run an initial test period to evaluate real-world performance and make adjustments. For example, the McMaster Optimal Aging portal did pilot tests and follow-up studies and applied changes based on user feedback^{16,17,30}.

Step 3: Maintain and update the platform

Several studies of KRs note that archived information must be continuously updated^{3,13,24,30}. Schedules for content updates vary. For example, in one repository, staff sent monthly reminders to organization members asking them to recommend new content¹³. Another KR³¹ was regularly updated at 1 to 2-week intervals to include relevant newly published material³. An organization operating a KR reported that it intended to automate the search processes used for updates¹⁵. Some KRs rely on self-archiving, having individual knowledge producers upload their content directly to the database, rather than have staff make updates.

Additionally, periodically updating the KR's platform's technology is important. There have been relatively few studies examining technology updates to KRs. The studies available describe technology updates that were implemented in specific repositories³ or were conducted to improve particular aspects of platforms³². As with information technology capacity, the lack of KR technology maintenance in published work may indicate that it is a routine activity which rarely causes problems for organizations hosting KRs. However, challenges could occur when technology or expertise is difficult to obtain⁷.

Core Functions of Knowledge Repositories

While each host organization and platform is unique, KRs have some functions in common. All KRs use information technology to capture, store, index, and spread information in digital formats^{8,12,20,21,25,27,33}. Each core function is discussed below.

Core Function 1: Finding and adding relevant information

A knowledge repository's value depends on containing information that users desire^{8,16-18,21} in sufficient volume to attract both contributors and consumers²³. Finding and adding relevant new material is essential^{5,8,21,23}, and some studies report that it is the main challenge in operating a repository^{8,23}.

There are two main methods for finding and adding information: 1) deposits by staff members, and 2) self-archiving. Some KRs also use hybrid approaches that include both methods²⁷. Finding and adding information using either method involves both barriers and enabling factors (Table 1, below).

1.1 The Staff Deposit Approach

According to a survey of US and Canadian repositories, 71% of KRs relied on employees at the host organization to add information, making it the most common method for content addition²⁷. Similarly, US studies at medical teaching facilities found that deposits in health science repositories were made more often by staff than by faculty^{23,34}. The staff deposit method is widely used because it ensures that new information is systematically added and is suitable for inclusion. For example, content for the health-evidence.ca repository³¹ is identified by searching seven databases, supplemented by hand searching public health journals³. The main barriers and factors enabling staff-driven information addition come from the need for human resources^{7,8,27}.

1.2 The Self-Archival Approach

Self-archiving relies on knowledge producers adding their work directly to the repository. This approach reduces staff time and costs borne by the host organization. Despite this advantage, a survey of US and Canadian repositories found that only 11% relied mainly on self-archiving²⁷.

Studies have consistently found that the main barrier to self-archiving is that knowledge producers are often reluctant to participate^{5-8,23,25,34}. Researchers have attributed low engagement with self-archiving to it being a low priority within university work routines^{5-8,11,25,28,34}. Knowledge producers often prioritize publishing in academic journals or books, which influences career progression^{5,11,28,34}, and are often unaware of the benefits from depositing their work in KRs^{5-7,23}.

Another obstacle is that knowledge producers are concerned about legal aspects of self-archiving work. Specific concerns include academic publishers' unwillingness to accept work that is also available through KRs^{7,11,23,34}, rights related to intellectual property and copyright of materials archived in open access repositories^{11,23,28}, and uncertainty about whether copyright allows them to self-archive previously published academic work^{6,7,11,34}. Knowledge producers also expressed concerns about potential content misuse or theft of content housed in KRs^{5,11,12,26}.

Finally, knowledge producers may be reluctant to self-archive their work because they expect that it will require significant additional time or work^{5,7,8,11,21,23,26,28}. Self-archiving is also hindered if knowledge producers do not have needed technical skills^{6,28}. Knowledge producers often reported that KR platforms or their user interfaces were difficult to use^{5,23,26}.

Despite these barriers, many knowledge producers deposit their work in KR, and several factors encourage self-archiving. One factor is the technology used during the deposit process. Multiple studies highlight the importance of having a streamlined and usable interface^{25,26,35}. Other factors relate to motivations for self-archiving work. A sense of altruism and the intrinsic benefit of sharing one's work are positively associated with self-archiving^{5,6,11,21,23,34}. Studies have also found that willingness to deposit information is positively associated with views that there are practical benefits for contributors^{14,21}, such as increasing professional visibility with a wider audience^{5,7,34}, and support with administrative tasks like archiving work, documenting service to the institution, backing up research data or materials, and helping establish timelines in disputes over publication^{7,11}.

Supportive organizational leadership can implement policies and initiatives that encourage self-archiving. Appropriate incentives, such as public recognition or small financial bonuses, help motivate knowledge producers to contribute information to repositories^{8,11}. Mandatory content self-archiving as a condition for receiving funding also increases participation^{7,10,11,23,34}. For example, since 2008 all of the Canadian federal Tri-Council granting agencies require that articles produced through funded research be made freely accessible through publishers' websites or repositories³⁶.

Table 1: Core Function – Finding and Adding Information

Goal	Barriers	Facilitators
Staff deposit method: Staff employed by the repository's host upload new information. Ensures systematic addition.	- limited human resources, staff turnover, or competing duties ²⁷	- a manager assigned to the repository ²⁷ - staff with suitable technical expertise ^{7,8}
Self-archiving method: individual knowledge producers upload information for inclusion in the repository. Reduces staff time and associated costs to the repository's host organization.	- difficult user interfaces ^{5,23,26} - low participation by knowledge producers ^{5-8,23,25,34} - low priority in organizational workflows and culture ^{5-8,11,25,28,34} - lack of familiarity with KR ^{5-7,11,23,25,26,34} - legal/copyright concerns ^{6,7,11,23,28,34} - concern about possible misuse of content ^{5,11,12,26} - perceived effort ^{5,7,11,21,23,26,28} - technical skill gaps ^{6,28}	- user-friendly deposit interface ^{25,26,35} - altruism ^{5,6,11,21,23,34} - perceived practical benefits ^{14,21} - visibility ^{5,7,34} - administrative tasks ^{7,11} - incentives ^{8,11} - mandatory policies ^{7,10,11,23,34} - marketing and outreach ^{10,23} - alignment with work routines ⁵

Core Function 2: Storing Knowledge

The second key function of any KR is long-term preservation of digital materials^{5,7,8,11,22}. For knowledge producers, repositories provide central archives that can house the author's work⁷. For an organization, KRs store the knowledge resources produced by its members or that are relevant to meeting its goals^{7,10}. In some cases, a repository may host externally produced material on behalf of other organizations, or material produced jointly through partnerships¹⁰.

The main barriers to long-term information storage are related to technology and funding. A repository's storage capacity is the amount of digital storage space it has available, and where that information is saved, such as in servers, digital cloud services, or other formats²⁰. The initial costs to establish a repository are not high if the organization uses open source software⁷, but ongoing updates and maintenance of the repository's technology can require significant resources^{3,7,14,28}. Although KRs face some technological challenges, an international survey found that repository managers reported only minor gaps between the technology they required and what was available⁸.

Table 2: Core Function – Preserving Knowledge

Goal	Barriers	Facilitators
Preserve digital materials for long-term organizational and individual use via centralized storage (servers, cloud, other formats)	<ul style="list-style-type: none"> - technology limitations²⁰ - funding for ongoing updates and maintenance^{3,7,14,28} 	<ul style="list-style-type: none"> - open-source software reduces initial costs⁷ - well-established IT capacities minimize storage challenges⁸

Core Function 3: Information Indexing and Retrieval

Facilitating access to information is one of the main reasons for establishing KRs. Classifying or indexing stored information helps users navigate content and find relevant materials efficiently^{12,14,19,20,24}. The indexing or codification process involves picking keywords and assigning a description to archived materials to place information in consistent categories^{9,16,17,19,20,33}. Categories are often not mutually exclusive, which allows items to be retrieved under multiple topics^{13,15}. However, some KRs limit the choice of keywords to ensure consistency and prevent the number of terms from growing excessively³. KR developers sometimes draw on existing classification schemes when they create codification systems. For example, a repository developed

in Canada drew on categories used by the WHO and other organizations²⁴. When a KR relies on self-archived materials, ensuring the information quality of archived materials is important¹⁴, and indexing may include validation procedures to ensure that new information meets inclusion standards^{3,10,15,21,30}.

The amount of information in a KR can be overwhelming to users and having an effective information retrieval process is important for continued use^{1,16-18}. KR developers support information retrieval by providing search support functions, such as search engines^{3,14,16,20,30}. Some KRs include a registration and sign-in process to track repository use and help tailor information retrieval to individual users' needs^{14,16}. In addition, KRs often track content retrieval to measure the repository's use^{3,7}. Information on access rates can be used to show knowledge producers that the repository has increased visibility of their work^{10,11}.

3.1 Technological Barriers and Facilitators

Some barriers and facilitators to indexing and retrieving information relate to technology and the resources needed to support it. Technological barriers include information technology that is not interoperable with other systems^{8,25,28}, and user interfaces that are difficult for non-specialists to use^{16,18}. Study participants expressed frustration if KR search functions were “not user friendly”, meaning time consuming, difficult to navigate, or more complicated than other methods of finding information^{14,16,18,19,33}. People with some health conditions or impairment also may face additional barriers when trying to access information through repositories³². Technological barriers can be overcome, but organizations operating KRs need resources to address them effectively. Multiple studies mention challenges related to costs and obtaining funding for ongoing maintenance^{3,7,11,14}.

Using interoperable computer systems and software improves search and retrieval processes^{8,25,28} and user-friendly technology further contributes to KR success^{1,16,17}. Several criteria define KR user-friendliness^{25,35}, including satisfaction, supportiveness, usefulness, and effectiveness. Specific features that influence user-interface satisfaction include visual appearance (i.e., use of colour, fonts and icons), consistency throughout the interface, the fit with a user's real-world needs, and user control and personalization^{16,17,28,32,35}. An interface is considered supportive when users can easily find instructions or help if they are uncertain about procedures³⁵. Finally, a user-interface is useful or effective if it is easy to learn, logically navigable, and structured to assist

users^{16-18,24,33,35}. A literature review also found that users preferred easy access to evidence, the option to customize searches for their needs, and interactive interfaces¹⁴.

3.2 User Perception Barriers and Facilitators

While technological features are important, some barriers and facilitators for KRs are rooted in users' perspectives. Different user groups approach the repository with divergent assumptions, which can make designing effective information retrieval challenging²⁴. Studies also document users' concerns that KRs may not be comprehensive or that information quality may be lower than from other sources^{11,19,21,24}. In some cases, potential users simply prefer to obtain information from sources they are familiar with¹⁹.

There are human factors that can facilitate the use of KRs for information retrieval, such as having a knowledge administrator or librarian available to help users navigate the system^{1,25}. Over time, familiarity with the KR increases engagement as user begins to experience it's benefits^{5,11}. Ultimately, having new and relevant information increases the interest of potential end users^{8,16-18,21}.

Table 3: Core Function – Indexing and Retrieval

Goal	Barriers	Facilitators
Organize information for efficient reuse and retrieval through indexing (keywords, controlled vocabularies, categories), classification schemes (MeSH, Library of Congress, WHO priorities), validation of information quality, search support (free text, keyword searches), and tracking usage metrics	<p><i>Technological:</i></p> <ul style="list-style-type: none"> - poor interoperability^{8,25,28} - complex interfaces^{14,16-19,33} - inaccessible to users with disabilities³² - resources needed for maintenance^{3,7,11,14} 	<p><i>Technological:</i></p> <ul style="list-style-type: none"> - interoperable systems²⁸ - user-friendly interfaces^{1,16-18,25,35} <ul style="list-style-type: none"> - satisfaction^{28,32,35} - supportiveness³⁵ - useful/ effective^{24,33,35} - effective search functions^{3,14,20,30} - profile-based customization¹⁴
	<p><i>User viewpoints:</i></p> <ul style="list-style-type: none"> - differences in users' assumptions²⁴ - doubts about comprehensiveness, quality, relevance^{11,19,21,24} - preference for familiar information sources¹⁹ 	<p><i>Human support:</i></p> <ul style="list-style-type: none"> - knowledge administrators/ librarians assist users^{1,25} - familiarity building engagement^{5,11} - new/ relevant information^{8,16-18,21}

Core Function 4: Spreading Knowledge

Information that remains unused in a repository does not provide value to an organization². KR information can be applied directly by end users and indirectly through promoting networks or connections that lead to application.

Users may apply knowledge from a repository in a variety of ways. Many users are also knowledge producers, such as university faculty, who incorporate information from repositories in their own research^{3,5,11}. Information in repositories can also be directly applied through policy or practice. KRs may also facilitate information use by helping form networks for collaborative work^{1,12,14,20}. A systematic review examining use of KRs in evidence-informed decision making found that they were used as platforms for knowledge transfer through distribution of personalized content, and through collaborative features that allowed discussion between portal users¹⁴.

While KRs may support knowledge sharing, this process does not happen automatically. Factors such as leadership and culture are important in the success of knowledge transfer initiatives in organizations². When knowledge producers, especially academics, focus heavily on publishing their work in peer-reviewed media, it discourages them from prioritizing KRs^{5-7,11,28}. While it may be difficult to achieve the cultural changes that a KR needs to work effectively^{7,28}, actively promoting KRs with well-timed and crafted communication can help^{7,14,25,26}. Effective promotion campaigns reach out to relevant stakeholders and emphasize key advantages the KR provides for them^{10,19,23,25}. As with other aspects of operating a KR, promotion requires time and resources.

Table 4: Core Function – Spreading Knowledge

Goal	Barriers	Facilitators
Enable reuse of information directly by helping users incorporate content into research, policy, or practice, and/ or indirectly through promoting networking	<ul style="list-style-type: none"> - Low engagement if users prioritize other publication channels^{5-7,11,28} - Cultural barriers in organizations^{7,28} 	<ul style="list-style-type: none"> - Active promotion and outreach^{7,14,25,26} - Leadership support² - Coordinated marketing campaigns^{10,19,23,25}

Knowledge Repository Impacts

The concept of KTE assumes that activities increasing the communication of knowledge to potential users *should* result in more widespread application of that information. However, in practice, the impacts of KTE on shaping policy and practice are difficult to evaluate. A 2007 review of literature about KTE in health policy suggested that available evidence was not sufficient to draw conclusions about which methods were effective⁴. It also noted that KTE, as it was practiced at the time, did not fit with the politics of health policymaking. Decision makers face competing priorities, and evidence rarely has a “rationally linear impact” on policy formation because decision-making processes are complex⁴.

Knowledge repositories face similar problems when evaluating their impacts or contributions¹⁴. A survey of KRs at New Zealand universities found no formal structures or approaches for evaluating repository success⁵. Similarly, a systematic review of the roles KRs play in EIDM in public health found that few studies evaluated impacts, and those that did reported limited impact on policy formation¹⁴.

Although these findings are not encouraging, actual impacts may be underestimated. KRs that are used in policy development may not be formally acknowledged in report bibliographies, and in the absence of other evaluation methods, information access data is often used as a proxy for impact³. Studies measuring KR access show that some repositories are used for finding information on specific topics and that both the number and average length of visits have increased^{3,14}.

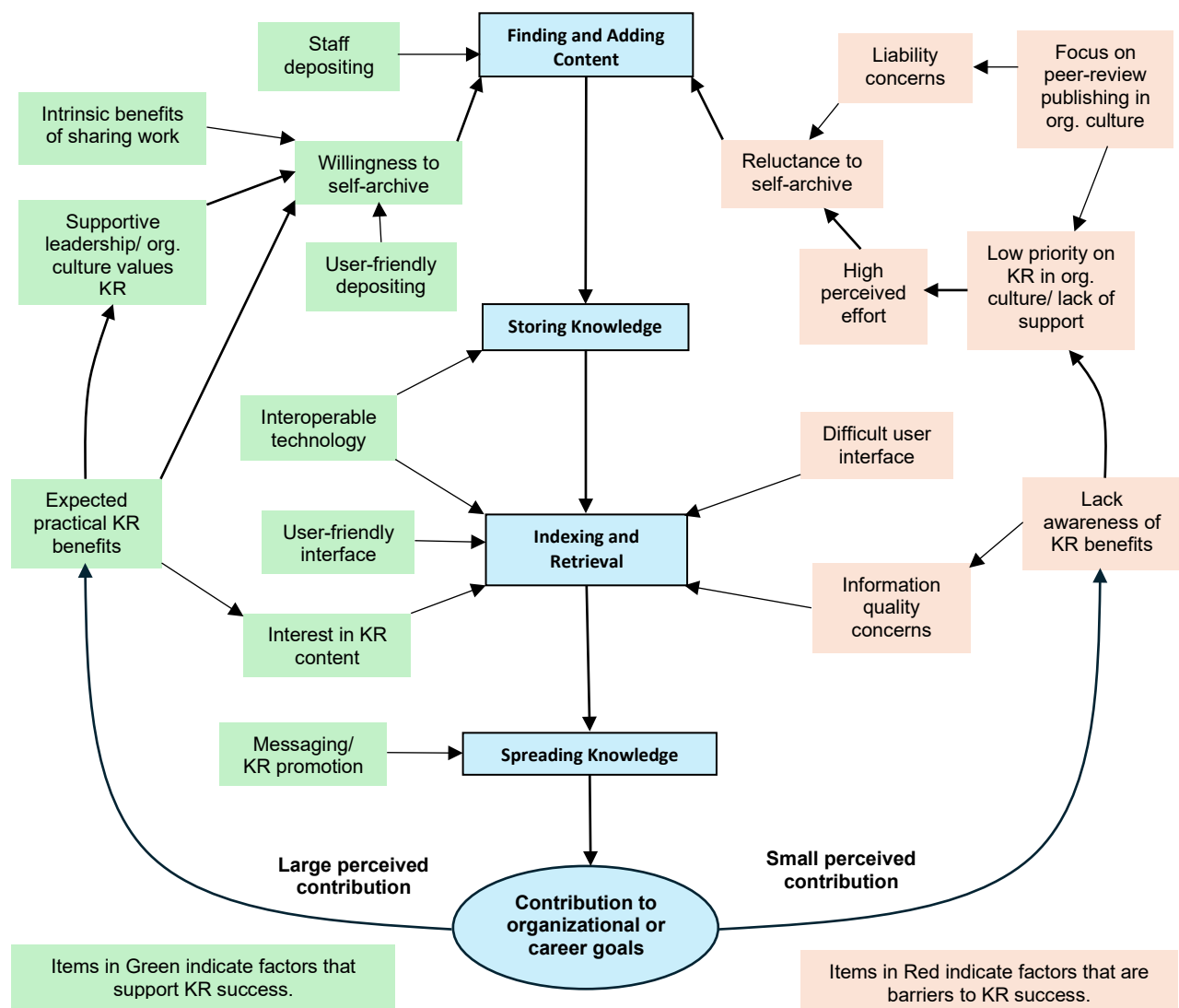
Conclusion

Effective use of knowledge is important for successful organizations. The value of information is reflected in the interest in EIDM making in the public sector. At the same time, approaches such as KTE and knowledge management have emerged to help make information more available for use in practical tasks.

Knowledge repositories are a specific type of knowledge management tool designed to capture, store, index and spread information. However, evidence for impacts of KRs remains limited. It may be that KRs, especially newly developed ones, face a vicious cycle. Support from

organization leaders, and engagement from both knowledge producers and potential knowledge users, depends on the KR being treated as a priority. In turn, the KR is more likely to become a priority if it is seen as supporting individuals achieve career goals and helping organizations meet their objectives. The value of a repository also depends on storing relevant and growing content. However, obtaining content depends on having organizational support and consistent engagement from knowledge producers and information seekers (Figure 1: Repository Core Functions Cycle).

Figure 1: Repository Core Functions Cycle



Despite this cycle, it is possible for KRs to overcome early challenges. Many repositories operate successfully in Canada and internationally. Organizations aiming to establish a successful new KR must invest significant resources in building, promoting, and maintaining the repository until it becomes a recognized “go-to” resource in its field. Success can be defined as consistent engagement from contributors and users, a growing and relevant information pool, and recognition by organizational leaders that the repository supports both individual and institutional goals. While current evidence suggests limited direct policy impact, these indicators highlight the potential of KRs as evolving tools. Further exploration of KR development and growth offers important opportunities to expand their contribution to evidence-informed decision making.

Appendix 1: Review Methods

The literature summarized in this report was compiled using scoping review methods^{29,37,38}. Inclusion criteria were designed to find articles about the practices used for developing and operating knowledge repositories, especially those that are intended to contribute to evidence-informed decision-making in health fields. Articles were excluded if they described repositories that were focused narrowly on specific medical conditions, or repositories that focused on holding research data.

The research team conducted initial exploratory searches in November-December 2024 to test the search strategy. Search terms included “repository”, “knowledge repository”, “knowledge management”, “policy”, “policy making”, and they were linked using and/or connectors in searches. Searches were limited to titles and abstracts, where possible, to avoid capturing articles where the search terms appear incidentally in the main text. The exploratory searches identified 19 potentially relevant articles. The main literature search was conducted in March-April 2025. Four literature databases were searched (MEDLINE; PubMed; Embase; EBSCO), and searches were conducted using Google Scholar. Bibliographies of articles that met the inclusion criteria were searched to identify additional articles. The Covidence literature review management application³⁹ was used for data handling. In total, 1306 articles were imported for screening (334 MEDLINE; 305 PubMed; 108 Embase; 59 EBSCO; 317 Google Scholar; 183 Citation searching). After 374 duplicates were removed, 879 articles were excluded during title and abstract screening and 21 were excluded when reading full texts. Thirty-two articles were kept for inclusion in the report. Articles were analyzed to identify the contexts where knowledge repositories were implemented, and factors that hindered or supported their operation.

References

1. Jasimuddin SM, Connell N, Klein JH. Knowledge transfer frameworks: an extension incorporating knowledge repositories and knowledge administration. *Information Systems Journal*. 2012;22(3):195-209. doi:10.1111/j.1365-2575.2011.00382.x
2. Goh SC. Managing effective knowledge transfer: an integrative framework and some practice implications. *Journal of Knowledge Management*. 2002;6(1):23-30. doi:10.1108/13673270210417664
3. Dobbins M, DeCorby K, Robeson P, Husson H, Tirilis D, Greco L. A knowledge management tool for public health: health-evidence.ca. *BMC public health*. 2010;10(1):496-496. doi:10.1186/1471-2458-10-496
4. Mitton C, Adair CE, McKenzie E, Patten SB, Perry BW. Knowledge Transfer and Exchange: Review and Synthesis of the Literature. *The Milbank quarterly*. 2007;85(4):729-768. doi:10.1111/j.1468-0009.2007.00506.x
5. Cullen R, Chawner B. Institutional repositories: assessing their value to the academic community. *Performance measurement and metrics*. 2010;11(2):131-147. doi:10.1108/14678041011064052
6. Kim J. Faculty self-archiving: Motivations and barriers. *Journal of the American Society for Information Science and Technology*. 2010;61(9):1909-1922. doi:10.1002/asi.21336
7. Jain P. New trends and future applications directions of institutional repositories in academic institutions. *Library review (Glasgow)*. 2011;60(2):125-141. doi:10.1108/00242531111113078
8. Lagzian F, Abrizah A, Wee M-C. Measuring the gap between perceived importance and actual performance of institutional repositories. *Library & Information Science Research*. 2015;37(2):147-155. doi:10.1016/j.lisr.2014.06.007
9. Lerski MB. A call for the library community to deploy best practices toward a database for biocultural knowledge relating to climate change. *Journal of Documentation*. 2022;78(5):1164-1183. doi:10.1108/JD-07-2021-0135
10. Bankier J-G, Smith C. Repository Collection Policies: Is a Liberal and Inclusive Policy Helpful or Harmful? *Australian Academic & Research Libraries*. 2010;41(4):245-259. doi:10.1080/00048623.2010.10721479
11. Brown C, Abbas JM. Institutional Digital Repositories for Science and Technology: A View from the Laboratory. *Journal of library administration*. 2010;50(3):181-215. doi:10.1080/01930821003634930

12. Aggestam L, Backlund P. Strategic Knowledge Management Issues when Designing Knowledge Repositories. presented at: ECIS 2007; 2007; St. Gallen, Switzerland. <https://aisel.aisnet.org/ecis2007/41>
13. Kowalewski K, Lavis JN, Wilson M, Carter N. Supporting evidence-informed health policy making: the development and contents of an online repository of policy-relevant documents addressing healthcare renewal in Canada. *Healthc Policy*. 2014;10(2):27-37. doi:no DOI available
14. Quinn E, Huckel-Schneider C, Campbell D, Seale H, Milat AJ. How can knowledge exchange portals assist in knowledge management for evidence-informed decision making in public health? *BMC public health*. 2014;14(1):443-443. doi:10.1186/1471-2458-14-443
15. Feder SL, Schulman-Green D, Huer J, et al. Development of the Palliative Care Law and Policy GPS to Assess National Policies in Palliative Care. *Journal of Palliative Medicine*. 2023;26(12):1698-1701. doi:10.1089/jpm.2023.0200
16. Barbara AM, Dobbins M, Haynes RB, et al. The McMaster Optimal Aging Portal: Usability Evaluation of a Unique Evidence-Based Health Information Website. *JMIR Human Factors*. 2016;3(1):e14. doi:10.2196/humanfactors.4800
17. Barbara AM, Dobbins M, Haynes RB, Iorio A, Lavis JN, Levinson AJ. User Experiences of the McMaster Optimal Aging Portal's Evidence Summaries and Blog Posts: Usability Study. *JMIR human factors*. 2016;3(2):e22-e22. doi:10.2196/humanfactors.6208
18. Neil-Sztramko SE, Farran R, Watson S, et al. If You Build It, Who Will Come? A Description of User Characteristics and Experiences With the McMaster Optimal Aging Portal. *Gerontology and Geriatric Medicine*. 2017;3:1-9. doi:10.1177/2333721417737681
19. Chhim PP, Somers TM, Chinnam RB. Knowledge reuse through electronic knowledge repositories: a multi theoretical study. *Journal of Knowledge Management*. 2017;21(4):741-764. doi:10.1108/JKM-03-2016-0126
20. Kruesi L, Burstein F, Tanner K. A knowledge management system framework for an open biomedical repository: communities, collaboration and corroboration. *Journal of Knowledge Management*. 2020;24(10):2553-2572. doi:10.1108/JKM-05-2020-0370
21. Fadel KJ, Durcikova A. If it's fair, I'll share: The effect of perceived knowledge validation justice on contributions to an organizational knowledge repository. *Information & Management*. 2014;51(5):511-519. doi:10.1016/j.im.2014.03.008
22. Lynch CA. Institutional Repositories: Essential Infrastructure For Scholarship In The Digital Age. *portal: Libraries and the Academy*. 2003;3(2)doi:10.1353/pla.2003.0039
23. Covey DT. Recruiting content for the institutional repository: the barriers exceed the benefits. *Journal of Digital Information*. 2011;12(3):1-18.

24. Lavis JN, Wilson MG, Moat KA, et al. Developing and refining the methods for a 'one-stop shop' for research evidence about health systems. *Health Res Policy Syst.* 2015;13:10. doi:10.1186/1478-4505-13-10
25. Ilik V, Hebal P, Olson A, et al. DigitalHub: A Repository Focused on the Future. *Medical Reference Services Quarterly.* 2018;37(1):31-42. doi:10.1080/02763869.2018.1404386
26. Hanneke R, Link JM. The complex nature of research dissemination practices among public health faculty researchers. *J Med Libr Assoc.* 2019;107(3):341-351. doi:10.5195/jmla.2019.524
27. Kipnis DG, Palmer LA, Kubilius RK. The institutional repository landscape in medical schools and academic health centers: a 2018 snapshot view and analysis. *J Med Libr Assoc.* 2019;107(4):488-498. doi:10.5195/jmla.2019.653
28. Pelizzari E. Harvesting for Disseminating: Open Archives and the Role of Academic Libraries. *The Acquisitions librarian.* 2005;17(33-34):35-51. doi:10.1300/J101v17n33_04
29. Arksey H, O'Malley L. Scoping Studies: Towards a Methodological Framework. Article. *International Journal of Social Research Methodology.* 2005;8(1):19-32. doi:10.1080/1364557032000119616
30. Barbara AM, Dobbins M, Brian Haynes R, et al. McMaster Optimal Aging Portal: an evidence-based database for geriatrics-focused health professionals. *BMC research notes.* 2017;10(1):271-271. doi:10.1186/s13104-017-2595-8
31. NCCMT. Health Evidence™. McMaster University, National Collaborating Centre for Methods and Tools. 2025. <https://www.healthevidence.org/>
32. Anderson T, Leachman C. Centering Accessibility: A Review of Institutional Repository Policy and Practice. *Journal of Librarianship and Scholarly Communication.* 2020;8(1). doi:10.7710/2162-3309.2383
33. Dei D-GJ, Kankam PK, Anane-Donkor L, Puttick CP, Peasah T. Knowledge Repositories for Managing Knowledge in Learning Organizations. *Electronic Journal of Knowledge Management.* 2024;22(1):01-13. doi:10.34190/ejkm.22.1.3018
34. Odell J, Palmer K, Dill E. Faculty Attitudes toward Open Access and Scholarly Communications: Disciplinary Differences on an Urban and Health Science Campus. *Journal of Librarianship and Scholarly Communication.* 11/07 2017;5doi:10.7710/2162-3309.2169
35. Kim HH, Kim YH. Usability study of digital institutional repositories. *The Electronic Library.* 2008;26(6):863-881. doi: 10.1108/02640470810921637
36. Government_of_Canada. Tri-Agency Open Access Policy on Publications. Canadian Institutes of Health Research. 2025. <https://www.cihr-irsc.gc.ca/e/32005.html>

37. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implementation Science*. 2010;5(1):69. doi:10.1186/1748-5908-5-69
38. Peters M, Godfrey C, McInerney P, Munn Z, Tricco A, Khalil H. Chapter 10: Scoping Reviews. In: Aromataris E, Lockwood C, Porritt K, Pilla B, Jordan Z, eds. *JBIManual for Evidence Synthesis*. JBI; 2024:chap 10.
39. Covidence. Covidence: Better Systematic Review Management. Covidence. 2025. <https://www.covidence.org/>