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ORIGINAL RESEARCH



Integrating Generative Artificial Intelligence into Higher Education: A Framework for Different Types of Reviews



Authors' Contribution:

- A – Study design;
- B – Data collection;
- C – Statistical analysis;
- D – Data interpretation;
- E – Manuscript preparation;
- F – Literature search;
- G – Funds collection

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Background and Aim of Study:

Abstract

Postgraduate studies in African countries face low completion rates due to capacity issues, hindering knowledge creation and innovation.

The aim of the study: to map the steps involved in conducting a systematic literature review in Information Systems (IS) research to the identified review types, thereby providing a framework based on Generative Artificial Intelligence (AI)-based design science artefact for researchers and educators in the field IS for postgraduate teaching and learning.

Material and Methods:

A systematic literature review was conducted to identify the review types in IS research following Preferred Reporting Items for Systematic Reviews and Meta-Analysis guidelines. The Association of Information Systems (AIS) database was used to identify relevant articles. The initial filter produced 2775 results. When focusing only on journal articles, the record produced 221 results, resulting in five papers qualifying for inclusion in the study. These papers were augmented to eight articles using one journal article and two conference papers identified through snowballing.

Results:

The results indicate that there are few publications within the AIS database on the tools used to support systematic literature review processes. However, those that exist do not reflect the type of review used. Additionally, tools that were used to support systematic literature review were those assisting with data extraction. Thus, frameworks may be needed to conduct a methodical review on various review types to ensure rigour and transparency in the findings of the reviews.

Conclusions:

This paper proposes a framework to guide the design of tools that can holistically support systematic literature review processes, making these reviews more accurate and less tedious. Such artefacts, especially using Generative AI tools, could potentially support postgraduate students in conducting rigorous reviews, improving completion rates and promoting knowledge creation and innovation in African countries.

Keywords:

systematic literature review, postgraduate studies, information systems, design science, teaching and learning, review types, Generative-AI, higher education

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Introduction

The use of systematic literature review continues to grow across disciplines, including Information Systems (IS). There are various approaches to conducting systematic literature studies, thus making it difficult to teach postgraduate students the steps to follow in planning, conducting and reporting systematic literature reviews. For instance, in systematic literature reviews, there is a reference to a meta-analysis, systematic reviews (Moher et al., 2009) and combining systematic literature review with qualitative or quantitative empirical studies (Henriques et al., 2020; Lewis et al., 2021). Moreover, Paré et al. (2015), based on a review of 139 IS systematic literature reviews, developed a typology of nine different review types and provided a descriptive insight into the most common reviews found in top IS journals.

Nevertheless, systematic literature review is defined as a review of literature that addresses a research problem by identifying, appraising, selecting and synthesising quality papers (Jennex, 2015). Additionally, conceptual and empirical evidence on a specific topic may be collected and synthesised, leading to new findings (Mitchel & El-Gayar, 2022). The systematic process of defining the problem, identifying protocols, and selecting and analysing primary research evidence may include different approaches such as mapping studies, meta-analysis, and mixed method reviews (Bandara, 2015; Marshall, 2023). Given that there are several review studies, they might confuse novice researchers. Therefore, these reviews need to be framed to make the process more manageable while maintaining rigour.

However, the literature suggests that the review process is tedious and may be overwhelming (Bandara et al., 2015), as it requires more time (Marshall & Brereton, 2013). Some postgraduate students have challenges in thoroughly reviewing the literature, especially because of topical issues that overburden them (Acheampong, 2021). Therefore, most systematic literature reviews ascertain a need for a field-specific method, especially for IS students. Thus, there is a need to implement digital tools in education to support students' systematic literature review learning (Segooa et al., 2025; Yanwar et al., 2022).

The use of Artificial Intelligence (AI), especially chatbots, has been cited to be instrumental in supporting students and educators in higher education (Melnik & Pypenko, 2024). According to Burger and Fourie (2019), Generative AI tools such as ChatGPT and Elicit AI may be leveraged to support the research process. These tools have been cited to be helpful in students' self-directed learning and writing (Li et al., 2025). However, there have been concerns that these Generative AI tools affect students' thinking skills (Winkler et al., 2023). Moreover, these tools can help the students increase their speed in reviewing literature, identifying research patterns, and further formulating and refining their research hypothesis (Chubb et al., 2022).

The expanding corpus in IS research necessitates teaching postgraduate research students different

strategies to conduct thorough systematic literature reviews without difficulties (Denzler et al., 2021). While this study acknowledges that several studies have been conducted to uncover best practices for conducting systematic literature reviews, there is a need to understand how various tools are used to support these types of studies. For instance, Bandara et al. (2015) focused on achieving rigorous literature reviews on qualitative data analysis and tool support. Their study suggested several types of review descriptions such as literature, critical, integrative, mapping, meta-analysis and mixed method reviews. Paré et al. (2015) had a similar typology, including qualitative, umbrella, theoretical, and realist reviews.

In the extant literature, systematic literature review studies have outlined the guidelines by classifying the general stages of systematic literature review (Bai et al., 2019). Nevertheless, their study needed to synthesise the steps to identify the commonality in the stages so that one guideline is proposed, which Segooa et al. (2023) addressed. However, they did not show how the synthesised steps can be applied in various review types. This lack of synthesis and application is where the current study bridges the knowledge gap. However, Marshall and Brereton (2013) and Stefanovic et al. (2021) have illustrated how tools can support the systematic literature review processes. This study helps expand the existing work focusing on how systematic literature review can support the development of artefacts using Design Science Research (DSR) by focusing on how systematic literature review can support the development of artefacts using design science research. Additionally, while there is the growth of large learning models (LLM) such as Chat GPT, Llama and Deepseek AI, research on how artefacts and Generative AI tools can support educators in teaching systematic literature review is limited. The current study further builds on similar studies by Ngwenyama and Rowe (2025), who investigated tools used for systematic literature review and the Generative AI that supported the reviewed studies.

The aim of the study. To explore various review types and their characteristics and map how they can be used in an AI-powered artefact, which postgraduate students may use to identify the systematic literature review type they can apply.

In order to address the identified research gap, the study poses the following research questions:

1. What review types may be used in IS research?
2. What are the characteristics of the identified review types in IS research?
3. Which review types are used in DSR studies?
4. How can systematic literature review steps be mapped to the identified review types?

Materials and Methods

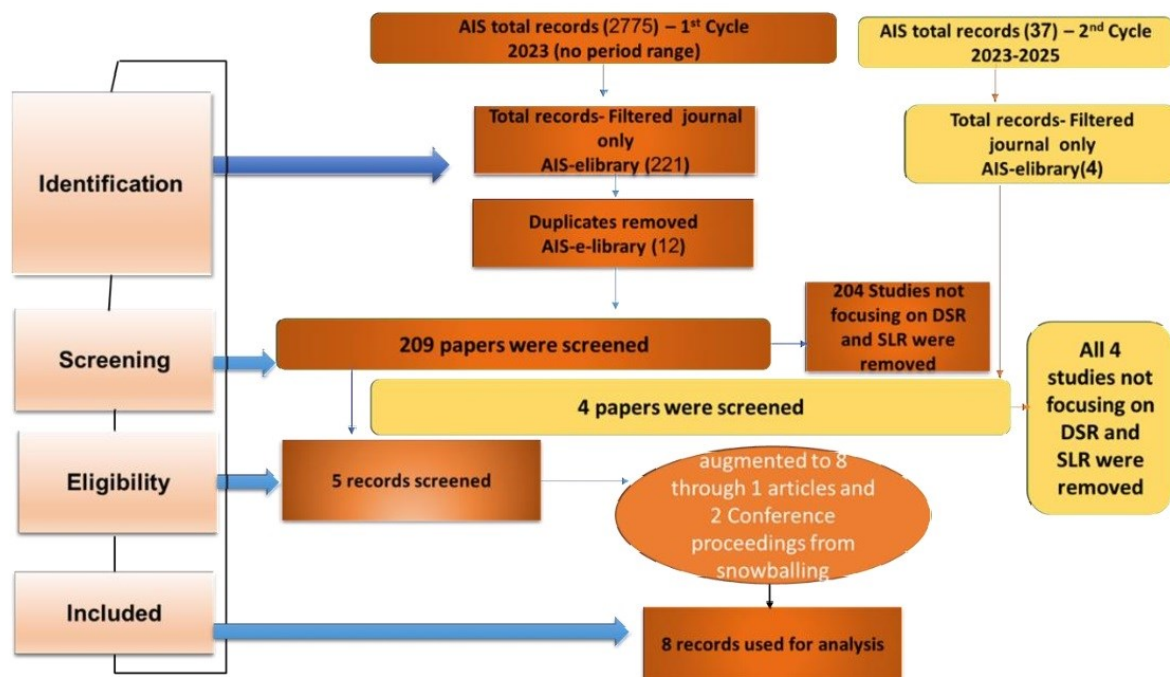
The study acknowledges various methodologies that may be employed to conduct the DSR. Siemon et al. (2022) suggest various study methods, including systematic review, experiments, and interviews, which



may be relevant to knowledge generation if they are comprehensible in DSR. This systematic literature review paper used narrative and theoretical reviews to identify review types and their characteristics. The systematic literature review was used to understand review types and tools used in studies that use Design Science Research to develop and improve artefacts. It is important to note that the literature search and selection is facilitated using databases identified by some scholars as tools (Bandara et al., 2015; Sturm & Sunyaev, 2019). However, while databases are critical in systematic literature reviews, this study does not include databases, reference management, and data analysis tools (Bandara et al., 2015) as part of the tools researchers intend to evaluate. The tools of focus are those that help in the efficient collection of academic literature and automate data extraction and synthesis. In this study, the Association of Information Systems (AIS) library was used for two cycles of searches because it is one of the common IS databases where most experts in IS publish their work. The search string,

employing keywords and Boolean operators "systematic literature review," "tools," and "design science," were used for the literature search to identify relevant articles. The initial search conducted in January 2023 produced 2775 results focusing only on journal articles between 2010 and 2023. The filter produced 209 results. These articles were screened, and after the inclusion and exclusion process, five articles met the inclusion criteria and were eligible to meet the DSR, systematic literature review and tool inclusion criteria. These papers were augmented to one article and two conference papers from snowballing, as illustrated through a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow in Figure 1. While the small sample was worrying for this review, it further foregrounded the scantiness of publication on this topic. However, it is also argued that a lack of quality articles during the appraising process may lead to a few articles for review (Pigott & Polanin, 2019). Nevertheless, the available articles enabled comparison, which is key in these studies (Valentine et al., 2010).

Figure 1
PRISMA Systematic Literature Review Process Flow



In 2025, a second-cycle search was conducted, limiting the search query to 01 January 2023 and 13 February 2025 to see if there were newly published articles. The search produced 37 records, and the period filter led to four articles which were selected. Upon screening, the records were excluded because they neither discussed SLR tools nor DSR artefacts to support the research process. No duplicates were found, given that the previous search only had an article from 2022. Thus, there is a slow publication record of studies researching the use of systematic literature reviews to inform DSR in the AIS database.

Results and Discussion

The study consolidated types of reviews adapted from the study of Paré et al. (2015), which suggests and outlines nine types of reviews researchers in IS need to understand. The reviews are detailed below, along with their characteristics.

1. Narrative Review

In the review, the researcher narrates what exists within a topic and may identify factors or themes that may inform guidelines to address a particular research problem (Paré et al., 2015). Furthermore, according to Greenhalgh et al. (2018), narrative reviews may differ from the classic systematic review methodology.



However, they can still be conducted systematically and aim to provide an authoritative argument based on a comprehensive analysis of evidence to convince fellow experts. Scholars such as Spencer et al. (2023) used narrative review to examine care capacity building from the health systems' perspective. The review used the framework for World Health Organisation (WHO) health systems to structure findings with their six core factors. The study provided recommendations utilising the framework that may be guidelines for healthcare policymakers.

Moreover, healthcare workers may use it to inform critical care capacity building in low-resource settings (Spencer et al., 2023). Furthermore, researchers such as Aguboshim et al. (2023) used the narrative review to highlight strategies that may be used to leverage effective security measures for Sustainable Development Goals. Existing reviews in IS have used narrative reviews, and there was no transparency in how the reviews were conducted (Templier & Paré, 2018). Therefore, it is important to provide details of the review process to ensure rigour even though all the systematic literature review steps are not addressed.

2. Descriptive Review

According to Hassandoust (2016), Paré et al. (2015), and Wirth (2018), a descriptive review investigates the existing empirical studies to assess existing patterns and trends, theories, methodologies or findings on the research topic. Additionally, this review systematically conducts a literature search and filters. It selects the right literature, codes it, and classifies it to examine the extent of a proposition of a pattern explained in the literature. IS scholars such as Hassandoust (2016) conducted a descriptive review to investigate factors influencing the infusion of IS at organisational and individual levels. The factors for the inclusion of IS were identified, and frequencies were established and grouped by significance, further producing a framework to infuse IS. Their study suggested that the infusion of IS is limited in individuals and organisations, and it is important to address that gap, as investing in technology does not always translate to organisational performance. Furthermore, a study by Wirth (2018) conducted a descriptive review to examine the factors in the IS security-related field, intending to uncover under-researched variables, used theories, methodologies, and research designs. Their study identified mass surveillance as an under-researched topic and that most IS studies used cross-sectional design with limited research taking longitudinal research design.

3. Scoping / Mapping Review

Paré et al. (2015) state that a scoping/mapping review establishes the need to study a particular topic. Moreover, this type of review aims to map and summarise the existing literature and systematically identify and appraise resources such as research articles, journal papers, and books. The scoping review may provide a comprehensive view of a subject and identify potential avenues for further research (Granell et al., 2021). Several studies, such as one by Tessema et al. (2021), conducted a scoping review on preparedness and

the impact of COVID-19 on healthcare systems in Africa. This study tabled out various factors associated with the unpreparedness of COVID-19 in healthcare systems, the impact of COVID-19 on Africa's healthcare system, and the challenges experienced by the healthcare system in Africa. Lemme et al. (2020) conducted a scoping review to identify the intervention used in improving the quality and use of routine health information system data in low- and middle-income countries. The findings revealed various tested interventions identified from the synthesised papers, and the results also helped to identify the working interventions reported in the papers.

4. Meta-Analysis Review

It is a quantitative review and uses statistical techniques to analyse the data from selected papers to establish the patterns in mean, max, minimum, mode, and heterogeneity (Paré et al., 2015). According to Rosenthal and DiMatteo (2001), meta-analysis is a systematic methodology that addresses the challenges of multiple research findings by exhaustively searching, synthesising, and statistically combining data from relevant studies to test hypotheses, identify moderating variables, and report comprehensive results. Researchers, such as Girard et al. (2013), have used this type of review to conduct a study on the effectiveness of serious games as new educational tools. Their study, which used experimental studies to assess the tool's effectiveness, indicated that serious games are formidable tools for learning. However, their meta-analysis used only nine papers. Additionally, the study of Tili et al. (2024) also used a meta-analysis review of 70 papers to investigate effective pedagogic approaches for mobile learning, where project-based learning yielded good results.

5. Qualitative Systematic Review

In a qualitative systematic review, the study seeks to understand the trends of the results of the studies that are qualitative, quantitative or mixed (Chen et al., 2022; Paré et al., 2015). Schuetz et al. (2024) used this review to gather and synthesise information about the factors influencing trust in technology in information IS. Their study presented findings that explain the existing trends and how relationships were tested and shared insights on known and less-known literature on the topic. Moreover, researchers such as Chen et al. (2022) also used a qualitative systematic review to investigate barriers and enablers to implementing and using clinical support systems for chronic diseases. Their study synthesised findings from various studies conducted on healthcare providers' experiences with clinical decision-support systems for chronic diseases. They included qualitative and evaluation studies with qualitative findings in their analysis. The results highlighted key barriers to implementation and enablers related to perceived usefulness that can be used to improve the system.

6. Umbrella Review

According to Aromataris et al. (2015), the umbrella review examines the existing information on the literature, which has been generated through systematic literature review studies to provide a holistic view of the



phenomenon. They further argue that this review helps to examine any consistencies in the results or if there are any contradictions in the results. This review also identifies if independent authors conducting similar topics using systematic literature reviews provide the same findings. Fusar-Poli and Radua (2018) suggest that ten rules must be carefully followed when conducting an umbrella review. These rules suggest ensuring a need for review, proposing a protocol to be followed, defining variable "keywords" of interest, estimating the size (coverage), stratifying evidence, showing possible biases heterogeneity, reporting transparent results, performing sensitivity analysis, and using appropriate software and acknowledging its limitations.

7. Theoretical Review

In this review, the study aims to develop a model or framework to address a particular research problem. Scholars such as Ly (2024) have used this type of review; they conducted a theoretical review study on teachers' roles in promoting a learner-centred approach. The researcher summarised and synthesised theories from the existing knowledge and presented a theoretical framework that shows the various roles a teacher needs to play to enhance English language learning. Additionally, the study of Lippert et al. (2024) used it to answer the research question "How does artificial intelligence affect the roles of middle managers in traditional organisations?" where existing theories were reviewed focusing on the use of AI in the execution of the responsibilities of middle managers in the context of traditional organisations. The study results provided new insight relating to AI and the future of managerial work, which empowers managers to navigate the identified challenges of AI-driven workplaces.

8. Realist Review

This qualitative review, which applies purposive sampling strategies, aims to test and produce theories to explain a phenomenon in various populations (Paré et al., 2015; Pawson et al., 2005). This review focuses on explaining a phenomenon rather than judging it, and it therefore highlights ways a programme or intervention works for beneficiaries, paying attention to circumstances (Pawson et al., 2005). These scholars

conducted a realist review to produce a model to assist in synthesising research designed to handle complex social interventions or programmes. The paper provided explanatory results explaining how realist studies may be conducted to uncover what works, and for whom, in what circumstances using theoretical and empirical evidence. Moreover, Smets (2024) conducted a realist study that aimed at providing history educators with the appropriate insight into four context-based cognitive mechanisms that can work for the effective teaching of historical concepts.

9. Critical Review

This review can be used in all research approaches (qualitative, quantitative, and mixed) to identify significant aspects of the field, thereby highlighting gaps in weaknesses, contradictions, inconsistencies, and untrustworthy and existing knowledge about a topic (Paré, 2015). It further enables studies to bring forth new theoretical personalised learning and emerging perspectives (Snyder, 2019). For instance, the research by Boro and Sharma (2023) identified knowledge structures and gaps, enabling their study to provide insights into the implications of a human resource information system in the banking sector. In another study, Taryna et al. (2018) thoroughly reviewed selected publications to ascertain consensus and elucidate the role of identity and access management within the evolving landscape of cloud service models and broader cloud computing technology.

The results in Table 1 highlight different characteristics of all nine reviews, which may be used to assist novice systematic literature review researchers in identifying the types of reviews and their similarities. The characterisation of these review types has also revealed some distinct similarities. Besides being literature review methodologies, they also review existing results from the literature. Additionally, they have a common purpose of addressing a specific research question, and their results are intended to inform scientific decisions. Moreover, all the reviews can assist in identifying existing literature gaps. Lastly, they all incorporate research approaches such as qualitative, quantitative or mixed methods.

Table 1

Characteristics of Review Types

Review type	Characteristics
Narrative	Unstructured, narrate topic, identify factors or themes, theories/frameworks driven.
Descriptive	Identifies and assesses factors, patterns, theories, methodologies and results.
Scoping/Mapping	Establishes literature gap and research avenues.
Meta-analysis	Uses statistical techniques and patterns.
Qualitative	Identifies and explains themes.
Umbrella	Synthesis systematic literature reviews.
Theoretical	Theory creation and enhancement; model or framework development.
Realistic	Theory creation and enhancement using context, population and circumstances to understand phenomenon.
Critical	Identifies biases and contradictions, inconsistencies in field of studies.



The papers analysed are reflected in Table 2, which illustrates the articles, including their review types. Additionally, the table shows the tools the analysed papers suggest could be used to support the systematic literature review-related processes in reducing the errors and tediousness linked with these types of studies. In

cases where researchers indicated the kind of review their studies undertook, they did not indicate the number of articles they reviewed. For example, the study of Marshall and Brereton (2015) and Stefanovic et al. (2021) only shows coded papers without indicating the number of papers reviewed.

Table 2
Primary Papers

Year	Authors	Review type	Studies reviewed	Tools used
2022	Sundaram and Berleant	Descriptive	29	Natural Language Processing and Text Mining (NLP/TM)
2021	Stefanovic et al.	Mapping	None	Tetra, Relis, Parcifal
2020	Benke et al.	Critical	49	None
2019	Berkemeier et al.	Descriptive	56	None
2019	Niemoller et al.	Qualitative	3	None
2019	Morana et al.	Qualitative	None	None
2013	Marshall and Brereton	Mapping	16	Project Explorer (PEX), ReVis, Site Content Analyser
2010	Goeken and Patas	Theoretical	154	None

Figure 2 illustrates the review types used by the analysed studies. The column chart represents the frequency of the review types informed by the dataset in Table 2. The results highlight that only five of the nine review types were used. Descriptive, mapping and qualitative review types appeared to be commonly used. In contrast, critical and theoretical review types were underrepresented across the studies. These findings

suggest that limited studies on DSR summarise literature to build on theory, which presents an opportunity for researchers to investigate this area further. These studies' methodology section only indicates that a systematic literature review was used, whereas stating the review type employed will help categorise the systematic literature review based on the type and further identify similarities in the studies.

Figure 2
Frequencies on Review Types



The mapping review highlights that researchers leverage this review type to establish research gaps and avenues for future research. In comparison, a descriptive review may identify the trends in findings, methodologies and theories of studies in a specific field or domain. The critical review is used to identify contradictions in research findings. Researchers also used qualitative reviews to explain the existing trends and themes relating to a particular research topic. However, there was no representation of other review types such as realist, umbrella, meta-analysis, and narrative in the

reviewed systematic literature review related to design science research papers focusing on systematic literature review tools.

The study further expands on the Researchbuddie artefact, informed by systematic literature review steps, as illustrated in Table 3, that may be followed for rigorous review and justifiable methodical, systematic process supported by Generative AI tools (Segooa et al., 2023). The artefact helps researchers understand which steps to follow to produce a rigorous review, depending on their research objectives.

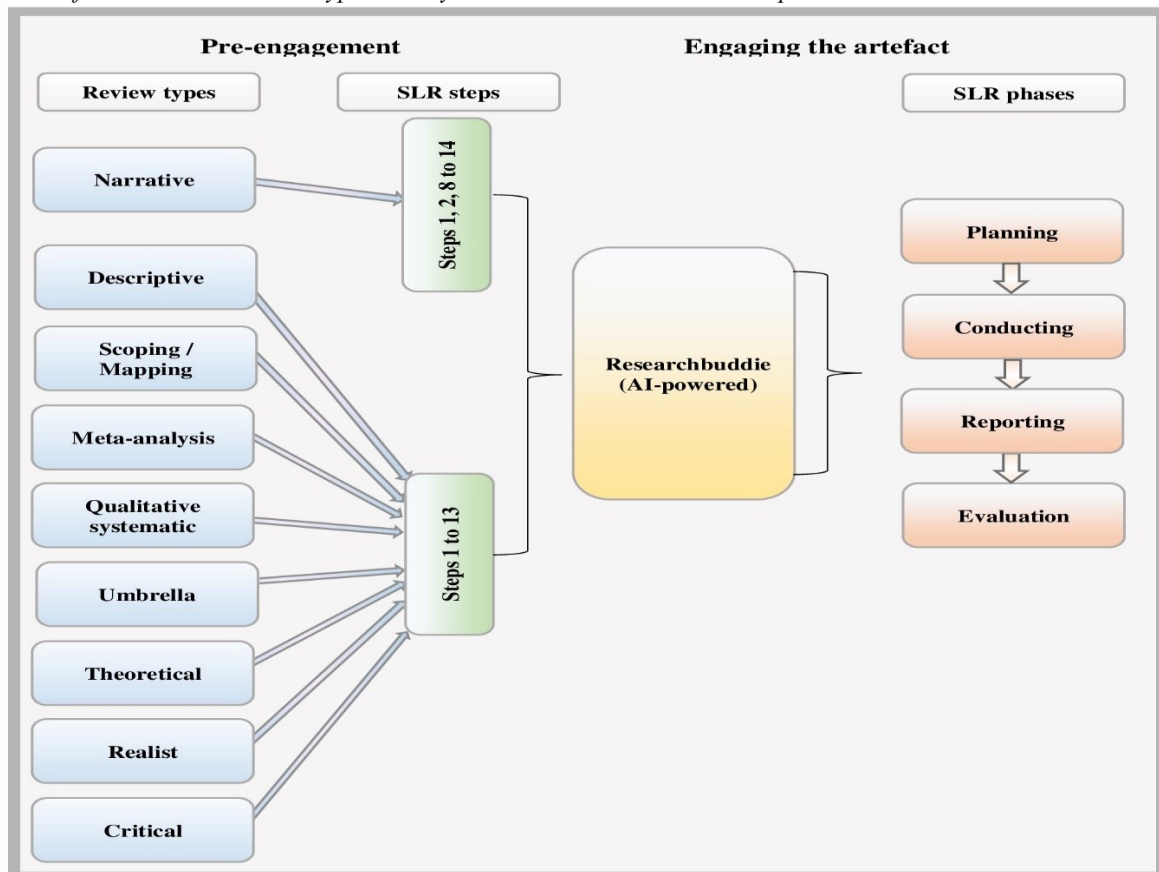
Table 3
Mapping Review Types and Systematic Literature Review Steps

Review steps	Review types								
	Narrative	Descriptive	Scoping / mapping	Meta-analysis	Qualitative systematic	Umbrella	Theoretical	Realist	Critical
Systematic literature review planning phase									
Step 1 - Defining the need for the review	x	x	x	x	x	x	x	x	x
Step 2 - Define the research question	x	x	x	x	x	x	x	x	x
Step 3 - Determine the protocol for the review		x	x	x	x	x	x	x	x
Step 4 – Evaluate the review protocol		x	x	x	x	x	x	x	x
Systematic literature review conducting phase									
Step 5 - Identification of research/search string development		x	x	x	x	x	x	x	x
Step 6 – Literature search (Determine the databases)		x	x	x	x	x	x	x	x
Step -7 Selection of studies (Inclusion and exclusion)		x	x	x	x	x	x	x	x
Step 8 – Assessing study quality	x	x	x	x	x	x	x	x	x
Step 9 – Data extraction and monitoring	x	x	x	x	x	x	x	x	x
Step 10 – Data synthesis	x	x	x	x	x	x	x	x	x
Systematic literature review reporting									
Step 11 – Specify dissemination mechanisms	x	x	x	x	x	x	x	x	x
Step 12 – Formatting the main report	x	x	x	x	x	x	x	x	x
Systematic literature review evaluation									
Step 13 – Evaluate the report internally	x	x	x	x	x	x	x	x	x
Step 14 – Evaluate the report externally	x	x	x	x	x	x	x	x	x
Researchbuddie support the type of review	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Figure 3 shows how the Researchbuddie artefact provides systematic guidance on approaching reviews

methodically guided by the systematic literature review phases.

Figure 3
Framework for Literature Review Types and Systematic Literature Review Steps on Researchbuddie





This study aimed to identify and characterise the review types used in IS research and map them to the tools that support systematic literature review in developing a framework. Following the 13 steps identified by Segooa et al. (2023), the identified review types were mapped to the spread across the various review types, with the reviews encompassing all the steps except for the narrative review. The steps not covered by the narrative review included steps 3 to 7: determining the protocol, evaluating the review protocol, identifying research, searching the literature, and selecting studies. This finding is supported by Bai et al. (2015), where researchers highlight that the narrative review type does not follow a specific structure to address the research objective.

The tools reviewed from other studies indicated that they could only be used on certain steps of the systematic literature review (Sundaram & Berleant, 2022). Studies with tools that supported systematic literature review processes included those of Marshall and Brereton (2015), who analysed tools used for data extraction, such as PEx for visualisation and ReVis for projection techniques and constructing mappings.

Furthermore, only two of the eight reviewed articles have systematic literature review supporting tools. The low usage of the tools can be linked to their cost; hence, they are not used. Notably, studies by Bandara et al. (2015) reported on several studies that used data management and analysis tools, which are mostly accessible due to institutions making tools like Nvivo available to researchers.

In contrast, the Researchbuddie artefact has proved compatible with all the 13 steps identified by Segooa et al. (2023). The findings also revealed that most studies which used systematic literature review did not indicate the review type. Accordingly, these review types can be identified by the objective and research outcome of the study, and how the study was analysed may identify the review type (Bandara, 2015). The same approach was used in this study to categorise reviewed studies without prescribed types.

However, this lack of identification by primary authors may confuse novice researchers as it becomes uncertain when to use a particular systematic literature review type. Therefore, the proposed framework can be used to guide novice researchers on the review type and the steps they need to follow. Figure 3 illustrates the pre-engagement activity, which shows users the review type they may need to select to conduct their review. Once the review type has been identified, users can use Researchbuddie to help them engage with the required steps of the selected review. In this engagement task, the artefact guides the user on the steps they must follow, guided by the systematic literature review phases.

This AI-powered Researchbuddie will then suggest the AI tools users can select to support them in each phase. Users must be allowed to select AI tools to ensure the artefact does not take away the researchers' decision-making ability. Given that research has suggested that Generative AI tools affect users' critical thinking skills (Winkler et al., 2023), this decision-making option keeps

the researchers in charge of their research and empowers them to make selections based on informed decisions.

Conclusions

The examination of review types and tools used to support systematic literature review revealed that there is insufficient research and reporting of tools that are used to support these types of reviews. Some scholars used mapping, qualitative, and descriptive studies of the reviewed studies, and single-use cases were used for critical and theoretical reviews. Of these review types, two mapping studies and a descriptive study focused on systematic literature review tools.

There was no use of generative AI-supported tools, citing a need for more research on studies that have used such tools and advancing subsidies to enable researchers to access tools available in the market. Furthermore, various reviews were discussed, which expand on existing knowledge on literature review with no identity and transparency; therefore, the discussed review types suggest a need to identify systematic reviews and guide how studies can use this process to improve the reporting on how the review was conducted to ensure rigour and methodical evidence.

Theoretically, the study mapped systematic literature review guiding steps and review types to develop a framework that expands on learning modalities to assist postgraduate students in conducting the project using the systematic literature review. Practically, the artefacts may assist postgraduate students in conducting systematic literature reviews using a solution that unifies relevant Generative AI tools to support their research process.

Moreover, the types of review discussed in the study can assist the researchers in identifying the direction their pursued review will take depending on what the study intends to achieve.

This systematic literature review study's use of multiple review types, such as narrative and theoretical reviews, contributes methodologically and provides different approaches to DSR and systematic literature review research to come up with various types of artefacts using secondary data.

The reliance on AIS as the only database presents a limitation for this study due to the growth of AI and the advancement of Generative AI, which could mean that more databases and their publications may have identified and used additional tools that support the systematic literature review process.

Similar studies employing more than one database are required. The review has also uncovered some opportunities for future research, including examining the impact of Generative AI tools on digital inequality in student research, as some have cost implications. Additionally, future studies could further investigate the incorporation of Generative AI tools in supporting the systematic literature review process using more databases.

Moreover, the guidelines for the ethical use of artificial intelligence tools to support a high-quality systematic literature review are required.



Ethical Approval

The study obtained ethical clearance from the institution's Ethics Committee under Ref #00633-24-A4.

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