

# Towards the intelligent automation of accounting research: systemised literature reviews

## W kierunku inteligentnej automatyzacji badań rachunkowości: usystematyzowane przeglądy literatury

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Received: 20.08.2023 – Revised: 16.10.2023 – Accepted: 17.10.2023

### Abstract

**Purpose:** The paper aims to highlight the trends in accounting research that used a literature review as their core research approach. The paper also provides an in-depth review of recent systemised reviews to analyse this trend.

**Methodology/approach:** We analyse recent trends in systemised literature reviews in accounting along with coverage of related methodological considerations in research handbooks.

**Findings:** The tendency to automate literature research is demonstrated. Initiatives to systematise the literature review were consistent with the standardisation of the research procedure necessary to develop specialised software. Identified examples of the application of big data analytics and artificial intelligence methods in the synthesis of various areas of accounting research signal the beginnings of the intelligent automation of literature research.

**Research limitations/implications:** The intelligent automation of accounting research is a dynamic phenomenon that requires further, more in-depth analysis.


**Originality/value:** The paper contributes to the very important and current topic of the digital transformation of accounting research.


**Keywords:** literature review, accounting, research methods, digital transformation, research automation.

### Streszczenie

**Cel:** Celem artykułu jest wskazanie zmian badań w rachunkowości, których głównym podejściem badawczym jest przegląd literatury. W artykule dokonano także szczegółowego przeglądu najnowszych usystematyzowanych przeglądów w celu analizy tej tendencji.

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**Metodyka/podejście badawcze:** Analizujemy najnowsze trendy w usystematyzowanych przeglądach literatury z zakresu rachunkowości wraz z uwzględnieniem powiązanych rozważań metodologicznych prezentowanych w podręcznikach z zakresu metod badawczych.

**Wyniki:** Wykazano tendencję do automatyzacji badań literaturowych. Wysiłki zmierzające do usystematyzowania przeglądu literatury były spójne ze standaryzacją procedury badawczej niezbędnej do opracowania specjalistycznego oprogramowania. Zidentyfikowane przykłady zastosowania analityki *big data* i metod sztucznej inteligencji w syntezie różnych obszarów badań rachunkowości sygnalizują początki inteligentnej automatyzacji badań literaturowych.

**Ograniczenia/implikacje badawcze:** Inteligentna automatyzacja badań rachunkowości jest zjawiskiem dynamicznym, które wymaga dalszych i głębszych badań.

**Oryginalność/wartość:** Artykuł wpisuje się w bardzo ważną i aktualną problematykę transformacji cyfrowej badań rachunkowości.

**Słowa kluczowe:** przegląd literatury, rachunkowość, metody badawcze, transformacja cyfrowa, automatyzacja badań.

## Introduction

Digital transformation is prevalent across areas of human activity. It is, therefore, not surprising to find that this trend is visible in accounting research (Hunton, 2002; Knudsen, 2020; Quattrone, 2016). It engenders profound changes in accounting practices that are the subject of empirical research (Bakarich, O'Brien, 2021; Cooper et al., 2019; Kokina, Blanchette, 2019; Kokina, Davenport, 2017; Qasim, Kharbat, 2019) as well as a broader view of business rationality (Kraus et al., 2022; Tabrizi, et al., 2019). Technological development and the linked socio-economic processes thus contribute to the emergence of new patterns and accounting practices that aim to match the conditions of human life in the new contextual reality of intelligent machines and devices (Łada, 2017; Mitchell et al., 2022; Moll, Yigitbasioglu, 2019). The current phase of digital transformation, which covers artificial intelligent solutions, is defined as intelligent automation (Bornet et al., 2021; Coombs et al., 2020). It significantly impacts research (Berkin et al., 2023; Costello et al., 2020), potentially increasing the productivity of analyses and the scope and dimensions of analysed research material, which could improve research quality. It also opens the possibility of exploring new areas of accounting thought and practice.

The digital transformation of accounting research partly manifests itself in how research is conducted (Bhimani, 2020; Jeacle, 2021). This is apparent in the case of the literature review (Cai et al., 2019; Garanina et al., 2022; Zengul et al., 2021). The widespread digitisation of research publications, including various forms of presenting research results, along with more open access to their content and the application of digital standards of bibliographic description, contribute to key changes in how literature research is done. Additionally, the concentration of research publications in specialised databases (e.g., journal databases and other electronic platforms) and the expansion of software for systemising and analysing bibliographic sources are only a few factors that can enhance efficiency.

The paper highlights the trends in accounting research that used a literature review as its core research approach. The paper also provides an in-depth review of recent systemised reviews to analyse this trend. “Systemised literature review” is used here as an umbrella term that covers various research procedures to ensure the completeness, transparency, and credibility of the literature review that synthesises research in a selected area. The article discusses the types, characteristics and objectives of literature reviews, how they are used in accounting research, as well as the areas where the research procedure has been automated.

The analysis of the latest systemised literature reviews (SLRs) in accounting demonstrates a tendency for progressive automation of bibliographic research. Initiatives to systematise the literature review are seen as a way of standardising research procedures, a typical introductory step to process automation. Standardisation opens the possibility of using more technologically advanced methods to realise the potential of the literature review. The examples we provide of the use of big data analytics and artificial intelligence (AI) to synthesise various areas of accounting research signal the beginnings of the intelligent automation of literature research.

## 1. Types of literature review

Literature research is a basic research method. It is a starting point and a crucial element in theoretical and empirical studies in accounting (Andiola et al., 2017; Massaro et al., 2016). A critical appreciation of earlier research helps in key ways, including establishing the current state of knowledge, identifying potentially interesting areas for further research, identifying a research gap, formulating research objectives or research questions, selecting and justifying the adopted theoretical perspective, selecting appropriate analytical constructs, choosing research methods, interpreting research results, strengthening argumentation, demonstrating the contribution of previous research, and any development of a new, original, theoretical element. Analyses of this type are linked to subsequent research stages, including where the discussion of research analysis refers to previous studies.

In textbooks on research methods (Saunders et al., 2009; Smith, 2022), the literature review is usually presented in a structured manner. A general framework for conducting a literature review suggests the following phases: designing a literature review, collecting relevant literature, analysing and synthesising content, and preparing the review. The results of analysing prior research are both an argument that confirms the legitimacy of undertaking further study and a point of reference for interpreting the results and formulating significant conclusions. A literature review can also be used as the method used to answer specific research questions (Jesson et al., 2011). A literature review is not only used to objectively organise the existing achievements and identify their characteristics and trends of change, but it can also be a source of a new view of issues in accounting research that are revealed because of a focused synthesis of fragmented research (Cooper et al., 2019).

The multiplicity of goals and the detailed scope of the literature review translates into diverse proposals for its typologies (Grant, Booth, 2009; Jesson et al., 2011; Snyder, 2019). Table 1 overviews and characterises selected types of literature review. In the literature reviews published in the field of accounting, authors do not always specify the type of review performed. Instead, they typically present the purpose of the research, the scope of the review, and at least general principles of how it was conducted (e.g., methods and techniques).

**Table 1.** Characteristics of selected types of literature review

<b>Type of literature review</b>	<b>Aim of review</b>	<b>Focus of review</b>	<b>Dominant approach and type of analysis</b>
Critical review	Examining and assessing approaches and the results of studies on the topic	The most significant primary research on the topic in the field	Subjective/qualitative
Conceptual review	Synthesising areas of conceptual knowledge that contribute to a better understanding of the topic	The most relevant publications on the concept(s) under consideration	Subjective/qualitative
State-of-the-art review	Keep readers up to date on the most recent research on the topic	The most recent publications on the topic in the field	Subjective/qualitative
Expert review	Developing/supporting expert opinion on the topic	The publications that best support presented arguments and views	Subjective/qualitative
Scoping review	Setting the background for a future research agenda (research gaps)	The publications that best represent the current structure and boundaries of the research field	Subjective/qualitative
Umbrella review	Compiling evidence from multiple reviews related to a broad topic	Only review papers on the topic with a variety of approaches	Subjective/qualitative
Systematic review	Compiling evidence from previous research to answer a scientific problem	All publications on the topic that meet formal selection criteria	Objective / qualitative and/or quantitative
Meta-analysis	Combining materials and results from previous research to produce new data	All primary research that addresses the same research question or measure the same phenomenon	Objective / mostly quantitative

Source: authors' own elaboration based on literature Grant, Booth (2009), Jesson et al. (2011).

Massaro et al. (2016) and Snyder (2019) noted that literature reviews are very subjective, in part from decisions made at various stages of the research process, which may be detailed in scope. Limited resources are an important factor in determining the quality of the results of a literature review. It is assumed that researchers have access to the full texts of all relevant items, read them (sometimes multiple times), understand the findings and limitations of the research, and then analyse and synthesise them in relation to the purpose of the review. In research practice, however, there are compromises in all these aspects between the possibilities and the standards enforced by editors and reviewers.

Nowadays, the growing scope of research publications of various orientations (e.g., theoretical, applied, positive, and normative) makes it very difficult to become familiar with all the literature in a given area. Moreover, higher standards require proper justification of the review method and a demonstration of its reliability and objectivity. A systemised literature review is presented as a panacea for such challenges (Hensel, 2020; Tranfield, Denyer, Smart, 2003). The formal research procedure that supports this approach makes it possible to demonstrate and justify the bibliographic core selection process and allow others to replicate the literature research. In addition, this type of literature review can be performed “once” on all publications currently available in chosen digital databases that meet formal selection criteria. In the accounting field, several approaches to systematic literature reviews have gained popularity. Some were promoted under different labels to underline their contribution and originality (Maurizio et al., 2016). In the following parts of the discussion, we use the umbrella term “systemised”, which covers a variety of literature research procedures<sup>1</sup>.

## 2. Systemised literature reviews in accounting research

In general, the systemised approach does not differ from the already presented framework of a literature review. Rather, it is aimed at making the research procedure more detailed and standardised at a level that ensures greater comprehensiveness of literature analyses, as well as the objectivity and reliability of their results (Hensel, 2020; Jesson et al., 2011; Linnenluecke et al., 2020a). The main distinguishing feature of this approach is the formal protocol adopted *a priori*, which contains a description of elements such as detailed objectives and stages of the review, predefined criteria for determining the substantive scope of the review, methods used to verify the quality and representativeness of individual items, justification for the selection of specific analysis methods (techniques), and a synthesis of research results. This protocol is a mandatory element of a published study report (e.g., an article), which allows other research teams to verify (replicate) the entire review.

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<sup>1</sup> In our deliberation, we do not cover meta-analysis as a distinct type of literature review (see Table 1).

The literature presents many very similar proposals for the stages of a systemised literature review (Fisch, Block, 2018; Jesson et al., 2011; Linnenluecke et al., 2020a; Massaro et al., 2016; Saunders et al., 2009; Tranfield et al., 2003; Xiao, Watson, 2019). In Table 2, against the background of the general phases of the literature review, three proposals are presented. Individual schemes differ in the scope of the procedure, the detailed sequence of stages, and the emphasis placed on selected aspects of the study. Table 2 also includes one of the latest procedures, the structured literature review (Maurizio et al. 2016), which has gained the interest of accounting researchers (Dumay et al., 2016; Tsalavoutas et al., 2020). The structured review is consistent with the general principles of a systemised literature review. According to Maurizio et al.'s (2016, p. 767) proposal, it is “a method for studying a corpus of scholarly literature, to develop insights, critical reflections, future research paths and research questions”. Compared to the other proposals, it is the most extensive, drawing attention to the multidimensionality of specific aspects of the study and indicating methods and techniques that can be used at individual stages.

**Table 2.** Selected proposals to “systemise” the literature review

Phase of the literature review	Systematic literature review (1)	Systematic literature review (2)	Structured literature review
Source	Jesson et al. (2011, pp. 104–108)	Tranfield et al. (2003, p. 214)	Massaro et al. (2016, pp. 771–772)
Designing a literature review	1. Map the field through a scoping review (scope and map, plan and protocol, document)	0. Identify the need for a review* 1. Prepare a proposal for a review 2. Develop a review protocol	1. Write a literature review protocol 2. Define the questions that the literature review sets out to answer
Collecting relevant literature	2. Comprehensive search 3. Quality assessment	3. Identify the research (field) 4. Select studies 5. Study quality assessment	3. Determine the type of research and carry out a comprehensive literature search 4. Measure article impact 5. Define an analytical framework 6. Establish literature review reliability 7. Test literature review validity

<b>Phase of the literature review</b>	<b>Systematic literature review (1)</b>	<b>Systematic literature review (2)</b>	<b>Structured literature review</b>
Analysis and synthesis of content	4. Data extraction 5. Synthesis	6. Extract data and monitor progress 7. Synthesise data	8. Code data using the developed framework 9. Develop insights and critique by analysing the dataset 10. Develop future research paths and questions
Preparation of the review	6. Write up	8. Write the report and recommendations 9. Put evidence into practice	–

\* Numbering as in original.

Source: authors' own elaboration based on the literature.

The procedures presented in Table 2 illustrate the other characteristics of SLRs (Fisch, Block, 2018; Jesson et al., 2011; Massaro et al., 2016; Tranfield et al., 2003; Xiao, Watson, 2019): a focus on analysing all relevant literature in a given field, which often involves a deliberately narrowed scope of search; the introduction of targeted quality assurance (audit) procedures at various stages of the audit; the use of formalised quantitative and qualitative methods; an extensive method of material analysis and synthesis of review results, which reduces the scope of narrative reporting in favour of a broader presentation of research results in the form of tabular summaries and graphical representations. Several methods and techniques contribute to the transparency, reliability, and quality of the literature review.

The systemised literature review procedure assumes a formal qualitative assessment of the research material (Jesson et al., 2011). This element can be introduced as early as the selection stage (defining inclusion and exclusion criteria). For example, some studies of significant accounting areas (Łada, 2021; Zengul et al., 2021) intentionally limit the scope of the review to articles published in the most respected journals (measured by top positions in the quality rankings). The selection of literature items may also be dictated by other, appropriately justified conditions (e.g., peer reviewed, the language it was written in, or whether it was published in a specific period). Formalised qualitative assessment criteria are also used at the stage of material analysis for an initial estimation of its substantive value. In this regard, accounting researchers (see Baker et al., 2023; Songini et al., 2023) use related metrics, including the estimated popularity of the literature

(e.g., citations), the author (e.g., overall citations, academic position), and the publisher's status. The selection of qualitative measures is inspired by the increasing number of publicly available rankings, standardised measures available in literature databases, and the results of their analysis.

Research tools combined with a systemised literature review are recommended for the extraction and qualitative analysis of previous research. The method for analyzing the content of texts and graphic elements serves as the source of patterns of conduct in this area (Hoque et al., 2017, chapt. 21). By analogy with the study of the collected material, which may include whole texts of publications for further analysis or only the initial selection of fragments, qualitative research software, such as Nvivo, is used in accounting research (Talpur et al., 2023). Content analysis can be conducted inductively in the form of open coding. The rule is to use at least fragmentary closed coding to identify typical features of research studies (e.g., paradigm, theory or the research method). Due to the challenges related to objectivity, the use of additional formalised quality assurance procedures for this type of analysis is proposed. The triangulation of researchers is recommended (Cai et al., 2019), or at least the results should be confronted through parallel coding conducted independently.

The synthesis of the results of the literature review is also "systemised". The synthesis stage combines the results of analyses of individual literature items into a whole and interprets them in a way that makes it possible to achieve the research objectives. As a rule, this requires an outline: the structure of the researched field (areas of convergence and divergence), the dynamics of changes, currently interesting research gaps, and the topics of current research that are gaining popularity. A technique that helps to develop the synthesis is the checklist approach (standardised or tailored by the author). The checklist contains questions designed to outline the full characteristics of the tested field (Jesson et al., 2011). The narrative that demonstrates how the research goal was achieved (i.e., the research question was answered) should be supplemented with tables confirming the legitimacy of the arguments formulated and the objectivity of the conclusions drawn (Linnenluecke et al., 2020a). Another procedure that increases the credibility of the synthesis is the development of graphical models that summarise important criteria or the use of other analytical elements that reflect the identified patterns (e.g., Kraus et al., 2022)

Formalising the research procedure and introducing additional methods and techniques should ensure the comprehensiveness and objectivity of the literature review. However, they do not guarantee them. In research method-focused deliberations, attention is paid to typical errors or inclinations that reduce the quality of the results of a systemised literature review (Albanese, 2023; Fisch, Block, 2018; Linnenluecke et al., 2020a). One of the issues raised is finding the right balance between accurately and evenly presenting all analysed review items and the required selectiveness in choosing specific literature items that best illustrate the discussion of the review results. The criteria for assessing the originality and quality of research that uses a systemised literature review as the only research method is also an issue.



Accounting research illustrates the varied general objectives of research based on a systemised literature review. The first, most classical approach, synthesises a relatively broad and mature research field to summarise the current state of knowledge and identify contradictions that may constitute potential research gaps, e.g., integrated reporting studies (Songini et al., 2023) or internal auditing in Europe (Hazaea et al., 2022). The second approach investigates a relatively new research field in which emerging topics are identified, e.g., blockchain (Garanina et al., 2022), indigenous sustainable finance (Poysler, Daugaard, 2023), and forecasting in financial accounting with AI (Kureljusic, Karger, 2023).

An interesting trend is the use of this type of research to synthesise the achievements developed within a given journal and determine the directions and strength of their impact, e.g., Contemporary Accounting Research (Baker et al., 2023) or Accounting and Finance (Linnenluecke et al., 2020b). A similar approach is applied to top accounting journals' thematic content (Zengul et al., 2021) or particular research method applications (Khlif, Chalmers, 2015). Less often, narrower research areas, such as accounting professionalisation in China (Wen, 2022) or sustainability materiality (Fiandrino et al., 2022), are analysed using this method. These observations have been confirmed by SLRs published in Poland. They concern relatively broad research fields, for example, examining the quality of selected aspects of reports (Dobija, Skorulska, 2016), ethics in accounting (Kamińska-Stańczak, Silska-Gembka, 2021), and accounting and legitimacy (Łada, 2021).

### 3. Automating the literature review

The growing availability of bibliographic items in digitised databases (e.g., Scopus, Web of Science, and Google Scholar) is a factor that favours the use of specialised software (e.g., Endnote, Zotero, or Mendeley). However, the degree of sophistication of the available options varies. The simplest functionalities covers the most basic steps of collecting literature items: selection, archiving, classification, and a simple description (notes). Slightly more advanced options enable simple automation of these activities, e.g., searching for and downloading full texts, as well as selecting, sorting, and encoding publications based on specific characteristics, such as words and phrases. All these widely used means, which the authors often do not mention when describing their methodology, make the literature review much less time-consuming without substantively changing the course of the research procedure itself.

Recent accounting publications based on SLRs indicate much more far-reaching changes, as new technologies are used to significantly expand the scope and methods of literature research. Table 3 summarises selected recent articles in the field of accounting whose authors declared the use of an SLR as the research method. Based on the content analysis, it highlights the purpose of the study, the scope of the review, the name of the main method, the software indicated in the paper, and the degree of automation in the review procedure. This summary illustrates two main areas where new automated elements have been introduced: (1)

the inclusion of bibliometric methods and the visualisation of their results in the review procedure, and (2) the automation of publications' content analysis, including advanced analysis using AI algorithms.

**Table 3.** Automation of the systemised literature review (SLR) in selected accounting papers

Source	Aim of SLR	Core method	Data-base/Software	Areas of SLR automation
Buchanan, Shen (2021)	A systematic literature review using HistCite in the context of gambling	A systematic literature review	WoS HistCite	Data searching, importing and categorising Bibliometric analysis (algorithms from social-network analysis and information theory) Results visualisation
Zengul et al. (2021)	To reveal themes and trends in accounting research over the past 20 years	A systematic literature review using natural language processing (NLP) and text-mining techniques	EBSCOhost Business Source Premier, Scopus, ScienceDirect Endnote NLP software JMP Text Mining Explorer, R and R Studio, Tableau	Data searching, importing and categorising Abstract content analysis (text mining analysis, latent semantic analysis) Results visualisation
Corvo, Pastore, Mastrodascio, Cepiku (2022)	To systemise the academic debate and contribute to the future research agenda of blended value accounting (SROI model)	A systematic literature review (PRISMA framework)	WoS, Scopus, JSTOR, EBSCO	Data searching, importing and categorising
Garanina et al. (2022)	To identify current trends, analyse and critique the key topics, and discuss the future of accounting research on blockchain	A structured literature review combined with citation analysis, topic modelling using a machine learning approach, and a manual review	EBSCO, Scopus, WoS, SSRN Python environment Harzing's Publish or Perish software	Data searching, importing and categorising Bibliometric analysis Full-text content analysis (Latent Dirichlet Allocation model)
Hazaea et al. (2022)	A systematic review of studies on internal auditing in 27 European countries and the UK	A systematic literature review	Scopus Google Scholar	Data searching, importing and categorising Citation counting

Source	Aim of SLR	Core method	Data-base/Software	Areas of SLR automation
Baker et al. (2023)	To critically evaluate research published by Contemporary Accounting Research between 1984 and 2021	Bibliometric analysis	Scopus VOSviewer Bibliometrix packages of R Gephi	Data searching, importing and categorising Bibliometric analysis Content analysis (word cloud) Results visualisation
MacDonald, Loy, Brimble, Wildman (2023)	To systematically review the literature on the value of financial advice	A systematic quantitative literature review	Scopus, WoS, Google, Google Scholar Excel	Data searching, importing and categorising Bibliometric analysis Content manual coding
Songini et al. (2023)	To understand the state of the art of the research on Integrated Reporting to highlight areas for further academic research, guiding developments in theory, research, policy and practice	A Systematic Literature Network Analysis (combines a systematic literature review and bibliographic network analysis)	Scopus VOSviewer Pajek (Main Path Algorithm)	Data searching, importing and categorising Bibliometric analysis Results visualisation
Talpur et al. (2023)	To synthesise the corporate social responsibility decoupling (CSR) literature, CSR's causes and consequences, and to discuss other organisational attributes examined by CSR scholars	Systematic literature review (PRISMA framework)	Google Scholar, Scopus, WoS Endnote NVivo	Data searching, importing and categorising Content manual coding

Source: authors' own study.

Extensive characteristics of individual bibliography items made available in electronic databases (e.g., Scopus, WoS) help extend the scope of analyses that are directly oriented towards achieving the research objective (i.e., answering the research question). The above list indicates the interest of accounting researchers in the use of bibliometric methods. The measures assigned to individual publications can be static (e.g., year of publication) or dynamic (e.g., number of citations) – such analyses are performed and apply for a given moment. Concerning the analysis of links, methods such as performance analysis, co-authorship analysis, citation network analysis, and bibliographic coupling are used (Baker et al., 2023). They make it possible to identify the multidimensional structure of previous research

in a selected area. Introducing the time dimension to these analyses helps make them dynamic.

Specialist bibliometric software (e.g., VosViewer, HistCite, and Gephi) allows for an automated quantitative and qualitative analysis of large sets of the main characteristics of literature items and reveals the links between them (e.g., Baker et al., 2023; Buchanan, Shen, 2021; Songini et al., 2023). Automation also includes illustrating analysis results in the form of various types of maps and charts. In reviews, illustrative charts of the number of publications in particular years are often used (e.g., the distribution of publications over time), and maps of thematic clusters are developed based on keywords (sometimes also words contained in titles or summaries).

In a dynamic approach, the development of research and its trends is reflected in the map of the sequence of citations of individual items (authors) in subsequent years of the analysis. To illustrate the differentiation of, e.g., clusters, word clouds, and word trees are also helpfully used. This group of visualisation methods for large text data sets may include the analysis of full publications; however, in the case of a large number of items, they are usually limited to publicly available abstracts (Zengul et al., 2021).

The second interesting area of contemporary change in systemised reviews is the automation of content analysis of full-text publications. In addition to the already mentioned big data methods based on the selection of keywords and their visualisation, accounting research increasingly often uses more advanced AI algorithms (e.g., Baker et al., 2023; Garanina et al., 2022; Zengul et al., 2021). They allow the user to better deal with the complex and unstructured nature that is inherent in interpreting the meaning of research study texts. In the cases listed in Table 3, the software made it possible to use selected algorithms classified as natural language processing and machine learning. In the methods section, the authors of the reviews point out that they require that the research material be properly prepared (i.e., data cleaning), taking into account the method used.

The combination of bibliographic analyses and automated content analysis additionally increases the arsenal of new methods that can be used to successfully conduct a literature review. The software makes it possible to cover by analysis much larger set of bibliography. However, reducing the time spent on the analysis requires researchers to invest in the selection of a method that is appropriate for the review and to properly prepare the research material. Currently, the correctness of the use of algorithms is still being verified by the results of the traditional, manual approach (Garanina et al., 2022). It can be expected that further refinement, extension, and standardisation of algorithms for automated text analysis will help them become separate products (literature review software) or standardised options available in literature databases. To maximise the benefit and advance the process, the researcher must take responsibility for the review text and interact with the automation to advance the review process.

## Conclusion

The discussion above illustrates the emerging trend towards the automation of systemised literature reviews. In light of this observation, attempts to systematise literature reviews can be considered indications of the standardisation of the research procedure, a crucial step for the advancement of process automation. It has been ascertained that, beyond facilitating the fairly simple automation of certain organisational and technical literature review tasks, these changes pave the way for the implementation of more technologically sophisticated approaches in pursuit of the substantive objectives of a literature review.

The use of big data analytics and AI algorithms for the synthesis of many areas within the field of accounting study has been clearly demonstrated by examples that have been published. Within the context of literature research, these examples of technical innovation (and the recommendations concerning the methods that go along with them) signal the early stages of intelligent automation. As a result, these developments portend the possibility of more sophisticated approaches to literature discovery and analysis, promising a paradigm shift in the way that academics approach literature studies. The evolving capabilities of electronic publication databases, as well as the accessibility and usability of software with advanced qualitative and quantitative analytical approaches included, are the driving forces behind these shifts.

SLRs contribute to research and practice in accounting in the following ways. First, they have the potential to significantly enhance the accounting literature. They can help set a future research agenda by synthesising the relevant studies on a particular topic in a rigorous way. Second, they constitute an effective way for the academic community to compare and contrast mixed findings in prior research. Third, a rigorous and quality SLR has the potential to provide insight into the impact of regulatory policies and/or important implications for the different stakeholders, such as the regulators, managers, and policymakers, on a particular accounting topic. Finally, they have the potential to challenge existing research by evaluating the quality of evidence on a given topic and provide a useful framework to contribute to upcoming research, including with practical implications.

The reflections presented here are part of the ongoing discussion on the future of accounting research (Bhimani, 2020; Jeacle, 2021). Looking at the described trends as ongoing intelligent automation allows us to draw conclusions about the directions of change for the future. Firstly, it has the potential for greater homogenisation of literature review results while significantly expanding their scope. Secondly, literature reviews can be performed (or begun) by specialists (service providers) with advanced technological facilities (e.g., access to databases, analytical software, AI solutions). Thirdly, it provides opportunities to change the emphasis of literature reviews from deductive to inductive, thus facilitating the development of exploratory literature research. Fourthly, looking further into the future, one can imagine a constantly updated, complete, and online-available map of accounting research, which for researchers is a basic/initial source of a synthetic

overview of the current state of knowledge and an inspiration for further research. In all these scenarios, systemising the literature review is important not only from the perspective of ensuring high-quality studies but also for providing researchers with a formal protocol that will allow the readers to interpret the results. Interacting with technology can potentially advance the quality and import of the review process, with the researcher's intervention remaining crucial for the benefits of automation software developments.

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