

Information literacy as social innovation: a systematic literature review

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Abstract: In contemporary times, the lack of capacity of individuals and communities to analyze and use information critically and to follow the cycles of technological advances results in disadvantage and in the maintenance of hegemonic contexts. This article presents a Systematic Literature Review with the objective of raising whether information literacy has been correlated with social innovation in the literature, to support the assertion that both areas are correlated and can be approached together in interdisciplinary studies, with benefits for the study of the two thematic areas. The results from the search in the Scopus, Web of Science, SAGE Open and Academic Search Premier databases were scarce and suggest that the topic has a potential field of study, which opens space for the suggestion of future research that aim at exploratory, documentary and empirical studies on information literacy to promote social innovation.

Keywords: social innovation; information literacy; interdisciplinarity; social emancipation

1 Introduction

Information literacy is defined in many forms. It can represent different ways of experiencing information to learn (BRUCE, 2008, 1997). It can be a learning approach (LUPTON, 2008), a catalyst for all kinds of learning (LLOYD, 2010) or a way of knowing (LLOYD, 2021). Besides, it can be the lifelong-learning process of interaction and internalization of concepts, attitudes and skills related to the accurate use and thorough understanding of information (BELLUZZO, 2017).

All of these definitions share a common correlation of information literacy to education and learning in diverse contexts, what Garcia (2018) corroborated in a study of research domains of information literacy and knowledge management. Moreover, the United Nations Educational, Scientific and Cultural Organization (UNESCO) also considers information literacy as a key competence for survival in the 21st century, since it is the ground foundation of lifelong learning (HORTON JR., 2007; LEE *et al.*, 2013). The growth of information literacy research in the last two decades and the increase in the citation impact each year confirm the importance of the topic (DE LUCCA; NEUBERT, 2020).

Conceptions about information literacy have evolved and moved from the simple mastery of technological tools and sets of skills to a conception that involves the capacity for critical thinking to support ethical and informed choices, aimed at the common good (CORRÊA; CASTRO JUNIOR, 2018; BERRÍO ZAPATA, 2012). Vitorino & Piantola (2011) advocate that there are four interdependent and complementary dimensions related to information literacy. These dimensions are: the technical dimension, linked to the domain of technology use and mastery; the aesthetics dimension, which involves creativity, motivation and the ability to re-signify information and externalize it in the collective sphere; the ethical dimension, which involves the responsible use of information; and the political dimension, which involves the exercise of citizenship and a full understanding of how information is produced and distributed, including what sort of information is considered relevant and what sort of information is not and why.

Santos, Maia & Pinheiro (2022a) and Righetto (2018) advocate that information literacy is interdisciplinary. Santos, Maia & Pinheiro (2022a) emphasize the connection between social innovation and information literacy whereas Righetto (2018) focuses on the promotion of cultural and cognitive awareness in the formation of a participatory community identity. Both articles stress the relevance of information literacy for the development of citizenship, especially among vulnerable populations. Furthermore, information literacy can also be considered as a basic human right (GARNER, 2005), since information

is essential in human and cognitive development (RIGHETTO; VITORINO, 2019).

This is of the utmost importance, especially if one considers the broader perspective for the interpretation of the Universal Declaration of Human Rights (UNITED NATIONS, 1948), whose third generation (collective or solidarity) rights include digital and information inclusion (MARQUES; SIMEÃO, 2015; CUEVAS-CERVERÓ; MARQUES; PAIXÃO, 2014).

Gómez-Hernández & Saorín (2015) suggest that the programs of information literacy emphasize learning for social innovation to empower peoples and communities. Righetto & Vitorino (2020) and Vitorino (2018) pointed out that information literacy is necessary in order to overcome information vulnerability and following the same line of thought, Righetto & Vitorino (2020), Santos (2020) and Santos, Maia & Pinheiro (2022b) suggested that information literacy and social innovation are correlated topics. Social innovation is also relevant for the 21st century, since it is a way of overcoming inequalities, poverty and social exclusion (HOCHGERNER, 2011).

Social innovation is a polysemic (PHILLIPS *et al.*, 2015; BESANÇON; CHOCHOY; GUYON, 2013) and multidimensional (MOULAERT *et al.*, 2005) word. Edwards-Schachter & Wallace (2017) found 252 definitions for social innovation. According to André & Abreu (2006), social innovation is a new and socially recognized response that generates social transformation, comprising three attributes: (i) satisfaction of human needs not satisfied by the markets; (ii) promotion of social inclusion; and (iii) training of individuals subjected to potential or effective processes of social exclusion/marginalization, with a consequent change in power relations. According to Harrisson & Klein (2007), social innovation means the transition from a knowledge economy to a knowledge society, in which the value produced by knowledge is widely shared both materially and immaterially.

For Avelino *et al.* (2019), social innovation results in lasting transformations by challenging, changing or replacing existing social relationships and practices, mainly through the co-production of knowledge and new structural changes. According to Moulaert (2016), social innovation usually

refers to the satisfaction of non-satisfied human needs, by creating or improving relationships between individuals or social groups in various spheres and at different levels of society, thus improving social relations and socio-political capacity with solidarity, associativity, reciprocity, etc. For Moulaert & MacCallum (2019), social innovation actions take place in response to specific local issues and through the mobilization of territory-specific resources, such as nature and habitat, infrastructure, organizations, skills and knowledge, social and ecological networks and local governance.

Moulaert & MacCallum (2019) acknowledge that the concretization of social innovation leads to a concern with its ethics, due to the connection of social innovation with democratic participation and emancipatory and solidary actions through the development of social skills. Moreover, the authors point out that the equal sharing of knowledge and power in relationships cannot be overlooked, since the construction of societies and human rights is a cyclical process of construction and reconstruction of ethics through ways of thinking and acting, thus allowing social transformation by means of governance and social participation. Besides, Moulaert & MacCallum (2019) emphasize that interdisciplinarity allows the construction of a shared worldview (ontology) and a shared epistemology to address social problems when dealing with social innovations.

Foresti *et al.* (2018) believe that information literacy can promote a solidary and inclusive consumer culture, by disseminating ethical, aesthetic, political and technical principles when people, as informational subjects, oppose the processes of social innovation to socio-economic processes of a hegemonic character, thus playing a role of social revitalization and local development drive based on social innovation. Santos, Maia & Pinheiro (2022b, 2021) acknowledge the relationship between information literacy and social innovation. Besides, a previous systematic literature review (SLR) on the potential relation between information literacy and social innovation was carried out by Santos (2020), who conducted the search in the Scientific Electronic Library Online (SciELO) and in the databases Brazilian Information Science Database (BRAPCI) and Redalyc. Despite the fact that the main results were

based on the few articles retrieved in the search, the selected studies supported the premise that information literacy has a social role as a social innovation and indicated a potential field of study.

In order to further these previous findings, the present article consisted of a SLR that aimed at presenting whether information literacy is correlated to social innovation in scientific literature. The importance of this issue is to verify whether this correlation has been documented in scientific literature in order to support the proposition that both areas are correlated and can be jointly approached in interdisciplinary studies. This can lead to a consolidation of both areas concerning conceptual definitions, theoretical and research approaches. In relation to previous studies, this article differs by presenting a systematic literature review carried out in major international databases. Besides, the correlation of both topics can contribute to the solving of complex social demands that presuppose effective informational use from local societies, i.e. the implementation of social innovations such as the United Nations 2030 Agenda (NAÇÕES UNIDAS, 2015). This article was developed within the scope of the research in progress at the Program of Post-Graduation in Information Systems and Knowledge Management at FUMEC University.

2 Methodology

The present article is an exploratory research of a qualitative nature and consists of a SLR that followed propositions of Kitchenham, Budgen & Brereton (2016). In order to reach the main objective, the study attempted to answer the following questions:

(Q1) What were the main findings of the studies retrieved?

(Q2) How are the topics information literacy and social innovation addressed in the works?

(Q3) Were there any primary studies relating social innovation to information literacy? If so, what were the methods used in these studies?

In order to summarize the methodology applied in the SLR, the protocol used in the research process is shown in Table 1 below.

Table 1 - Protocol used in the Systematic Literature Review

PROTOCOL OF THE SYSTEMATIC LITERATURE REVIEW (SLR)	
Objective	To present whether information literacy is correlated to social innovation in scientific literature.
Questions	(Q1) What were the main findings of the studies retrieved? (Q2) How are the topics information literacy and social innovation addressed in the articles? (Q3) Were there any primary studies relating social innovation to information literacy? If so, what were the methods used in these studies?
Databases Source of search:	Scopus Web of Science SAGE Open Academic Search Premier (EBSCO) Searches were carried out with institutional log on Federal University of Ouro Preto (UFOP) at CAFE / CAPES Journal Portal (Portal de Periódicos da CAPES).
Search Date	Searches were carried out in February 2022
Descriptor used in search	“information literacy” AND “social innovation”
Search Filters	No use of filters (temporal, language nor thematic area), in order to get the most comprehensive result.
Inclusion Criteria	1. Scientific articles or literature reviews published in peer-reviewed journals; 2. Articles presented in conference proceedings; 3. Presence of the descriptor used in the search (see above) in the article (MANUAL CHECK).
Exclusion Criteria	Repeated articles, articles that did not approach both topics and those that did not comply with the above inclusion criteria (MANUAL CHECK).
Relevance Criteria	1. Does the article clearly respond to or contributes to the objective of the research? 2. Does the article clearly present evidence of the correlation between information literacy and social innovation? 3. Does the article clearly present research methods and evaluation criteria? Relevance criteria were defined in order to classify the selected articles with weights that range from 0 to 1, as follows: (F) = 1 (criterion was fully met); (P) = 0.5 (criterion was partially met); and (N) = 0 (criterion was not met or is unknown).
Data extraction	Data extracted was categorized as following: source (journal or conference); full reference; author(s)'s name(s); author(s)'s institutional affiliation and institutional country location; study main objectives; main findings.

Source: The authors.

3 Results

The results obtained were scarce. For the database Scopus, there were five (5) results retrieved; for the Web of Science database, there were three (3) results retrieved; for the SAGE Open database, there were no results retrieved; and for the Academic Search Premier (EBSCO) database, there were two (2) results retrieved, with a total of ten (10) results.

After carrying out the analysis of inclusion and exclusion criteria, one (1) out of five (5) results of Scopus was disregarded, since it consisted of a book chapter. For the Web of Science database, out of the three (3) results retrieved, two (2) articles were disregarded because they were repeated. For the SAGE Open database, there were no results retrieved and for the Academic Search Premier (EBSCO) database, out of the two (2) results retrieved, both were disregarded. One of them was disregarded because it was repeated and the other because it did not approach the topic social innovation in the article. Therefore, after the step of inclusion and exclusion criteria analysis, a total of five (5) documents were included in the study. The articles retrieved, as well as information about authors' affiliation and country of institutional location are shown in table 2 below.

Table 2 - List of selected articles.

AUTHORS	AUTHORS' AFFILIATION	COUNTRY	SOURCE	DATA BASE
Karvalics (2013)	University of Szeged	Hungary	Conference	Web of Science
Chian Tan, Pan & Cui (2014)	University of New South Wales (UNSW) / Shanghai University of Finance and Economics	Australia / China	Conference	Scopus
Karvalics (2014)	University of Szeged	Hungary	Conference	Scopus / Web of Science
Righetto & Vitorino (2020)	Federal University of Santa Catarina	Brazil	Journal	Scopus / Web of Science
Potnis & Gala (2022)	University of Tennessee / Central University of Gujarat	United States / India	Journal	Scopus / Academic Search Premier (EBSCO)

Source: The authors

According to table 2, the articles originated from different countries and were divided into conference papers and journal articles, according to the databases from which they were retrieved. In order to answer the first question presented at the SLR protocol, table 3 below shows the main objectives and findings of the selected articles.

Table 3 - Main objectives and findings of the selected articles.

AUTHORS	MAIN OBJECTIVES	MAIN FINDINGS
Karvalics (2013)	To define scientific literacy and present the Platform Palestria, an online platform to define, plan, organize, perform and disseminate hybrid projects, since everybody can learn to deal with scientific issues as a part of research communities in a paradigm of lifelong research, by creating hybrid knowledge-producing communities where research tasks can be distributed to scholars, teachers and students.	The bottleneck in the areas of knowledge and insight, due to the sheer mass of raw data generated, cannot be reduced to algorithm analysis and demand social innovative actions. This bottleneck may be overcome by social innovation, such as the development of an online workflow platform to define, plan, organize, perform and disseminate hybrid projects, called Palestria. It brings together science stakeholders, by supporting defining, planning, organizing, performing and disseminating hybrid research projects.
Chian Tan, Pan & Cui (2014)	To examine a digital social innovation to address how information processing capabilities enable digital social innovation, since developing information capabilities and having access to information resources empowers marginalized individuals and communities.	The authors present a research model that posits information literacy, information immediacy (availability of information, tools and capabilities) and information liberty (ability to transform information, networks and systems into independence and opportunity) as required information capabilities in order to develop digital social innovation.
Karvalics (2014)	To elaborate the characteristics of three new “clusters” of information literacies, known as newborn literacies, transforming literacies and “hyperpeople” literacies, by analyzing the expanding conceptual universe of information literacy and considering the emergence of “Internet of Everything”.	In order to deal with questions regarding Internet of Everything, instead of focusing on the next generation of information technology innovations, solutions, tools and services, the need is to focus on “human technology”, such as social innovation and design thinking aspects to achieve literacy.
Righetto & Vitorino (2020)	The article aims at presenting similarities and alignments between information literacy, a movement that consists of a lifelong learning, and social innovation, a process focused on human needs satisfaction (and emancipation) through innovation in social relations.	<ul style="list-style-type: none"> • The validation of information literacy as a movement of social innovation is driven by the need of “learning to learn”, due to the reorganization of information and contemporary knowledge. • Information literacy frameworks and standards can also be used to support social innovation studies and actions linked to lifelong learning. • For educational development, it is necessary that democratic and citizenship actions take place, especially for vulnerable groups/communities, mainly in relation to issues involving

		access and use of information for the construction of knowledge, identity and autonomy in order to allow their effective social inclusion.
Potnis & Gala (2022)	Since mobile payments require the user to have mobile literacy, financial literacy, and information literacy, the article aims to report a 3-year-plus study of proposing, testing, customizing, and disseminating a practice-based, outcome-driven, and community-oriented social innovation in the form of a financial and information literacy toolkit in public libraries in India.	<ul style="list-style-type: none"> • The study presents an interdisciplinary toolkit inspired by information literacy frameworks, development economics (e.g., financial literacy for financial inclusion of people living in poverty in developing countries), and literature on information and communication technology for development (e.g., digital literacy); • The toolkit was effective in making vulnerable and poor participants more knowledgeable, confident, and independent in using mobile payment services. • Opportunity for public libraries and librarians in developing countries to design new strategies for reaching out to users and create value through social innovation. • Public libraries can leverage their preexisting infrastructure to become strategic partners for the United Nations and local, state, and national governments in developing countries for alleviating poverty.

Source: The authors.

According to the table 3, the selected articles are very diverse and involve the definition of concepts of information literacy and other related literacies, in addition to the application of information literacy in solutions to achieve social innovation. In relation to main findings, results vary from the presentation of theoretical or applied models to the correlation of information literacy and social innovation concepts. Another point that must be emphasized is that the articles selected do not approach the concepts of social innovation and information literacy to the same degree. Table 4 below shows how these two concepts were defined in the selected articles, in order to answer the second question presented at the SLR protocol.

Table 4 - Concepts of social innovation and information literacy

AUTHORS	CONCEPTS OF SOCIAL INNOVATION	CONCEPTS OF INFORMATION LITERACY
Karvalics (2013)	No definition of social innovation presented.	<ul style="list-style-type: none"> • Standard definitions of information literacy are insufficient to deal with the social technologies currently available; • In order for people to fully master digital transaction and interaction forms, special abilities, routines, cognition, and conceptual foundation must be developed, such as knowledge on legal issues (information privacy, freedom of information, limits of freedom of speech, illegal content, harmful comments, etc.), sensibility to psychological challenges (cyberbullying, attention deficit disorder, online addictions, etc.) and a confident usage of financial background systems; • Scientific literacy is a complex set of knowledge of methods, approaches, attitudes and skills to identify scientific issues underlying national and local decisions; evaluate the quality of scientific information on the basis of its source and the methods used to generate it; pose and evaluate arguments based on evidence and to apply conclusions from such arguments appropriately.
Chian Tan, Pan & Cui (2014)	<ul style="list-style-type: none"> • Multi-dimensional phenomenon in response to environmental and demographic challenges to create and understand social change; • Intimately connected to ICTs, since addressing how information is gathered, synthesized and distributed empowers marginalized individuals and communities; • Addressed in this study as digital social innovation, that is path-dependent and contextual and consists of three dimensions: content (satisfaction of basic human needs), process (changes in social relations, especially governance and participation) and empowerment (increase in the social-political capability and access to resources needed) dimensions. 	<ul style="list-style-type: none"> • Information processing capability, which consists of the ability to articulate information, analyze and develop knowledge of market and system tools; • Depends on an information network to share knowledge and develop ICT competences.
Karvalics (2014)	No definition of social innovation presented	<p>In a context of emergent technologies, new literacies arise, based on traditional information literacy skills and the article proposes the following three categories of emergent literacies:</p> <ul style="list-style-type: none"> • newborn literacies based on traditional information literacy skills and professional knowledge, such as financial literacy, legal literacy, psycho-literacy,

		<p>health literacy and futures literacy (or the ability to anticipate scenarios by using data from systems and models in order to better make decisions);</p> <ul style="list-style-type: none"> transforming literacies, or a significantly improved version of earlier literacy forms, as a part of the gradation from the receptive to a receptive/productive way of dealing with information, i.e. big data literacy derived from data literacy, infographicacy derived from visual literacy, gamificacy derived from game literacy, content creacy derived from media literacy, lifelong research derived from scientific literacy and operacy (or the ability for agenda setting, strategic planning, managing conflicts and sharing tasks) derived from participatory literacy; hyperpeople data literacy (abilities to use information in an Internet of Things scenario, in which data needs to be usable, purposeful and meaningful in order for it to be translated into action), which includes emotional literacy, use of English as a lingua franca, critical thinking and context literacy (the ability to see connections among pieces of data and information in a hypermedia environment).
<p>Righetto & Vitorino (2020)</p>	<ul style="list-style-type: none"> Effect of knowledge applied to social needs through the participation and cooperation of multiple social actors, enabling new and lasting solutions for social groups, communities or society in general; Important alternative movement of urban development, focused on satisfying human needs (and emancipation) through innovation in social relationships; Intertwined with the logic and practice of social claims, encompassing movements in favor of gender minorities, new ways of using mobile technology, new lifestyles, new products and services; Encompasses innovative activities and services that are motivated by the objective of meeting a social need and that are predominantly developed and disseminated by organizations whose primary objectives are social; Can be understood as synonymous with social entrepreneurship; 	<ul style="list-style-type: none"> Promotes long life learning; Aims at developing individuals' capabilities to determine the nature and depth of their informational needs and to be able to use information ethically, responsibly, critically and masterfully regardless of formats and/or supports; Provides decision-making capabilities, since it encompasses knowledge, skills and attitudes that enable individuals and groups to understand the role and functions of the media and other information providers in democratic societies; critically evaluate the information and content of the media and other information in terms of authority, credibility and current purpose; engage with media and other information providers for self-expression, freedom of expression, intercultural dialogue and democratic participation; Allows for the manifestation of cultural expressions, including dialogue and evaluation of the representation of various cultures and peoples by the media and others content providers.

	<ul style="list-style-type: none"> • It has three synergistic dimensions: satisfaction of human needs; process (changes in social relations, especially with regard to governance and the level of participation of all), empowerment (expansion of socio-political capacity and access to the resources necessary to consolidate the rights to the satisfaction of human needs and participation). 	
Potnis & Gala (2022)	<ul style="list-style-type: none"> • A novel solution to a social problem that is more effective, efficient, sustainable or just than existing alternatives; • Provides value primarily to society as a whole rather than to individuals; • Public libraries rely on social innovations that create value for local communities by addressing the challenges related to lifelong learning, emergency response, civic engagement, economic development, health, diversity and inclusion; • Social innovations by public libraries rarely address poverty issues. 	<ul style="list-style-type: none"> • Mobile literacy consists of skills, competencies, and knowledge needed to carry out tasks on mobile phones; • Financial literacy consists of understanding financial terminology and knowing how to deal with financial matters effectively; • Gathering, evaluating, and using information related to mobile and financial services constitutes information literacy; • Most models and frameworks on digital, financial, and information literacy originated in developed countries and most of them were based on or related to the information literacy of students; • Hardly any models and frameworks of information literacy are proposed, tested, and customized according to the needs of poor people living in developing countries.

Source: The authors.

According to table 4, it is possible to see how social innovation and information literacy concepts are understood. Karvalics (2013; 2014) does not define social innovation, this author only mentions that in the future human skills and social innovation will be very needed. In a general way, Karvalics (2013, 2014) considers that the standard definitions of information literacy are not sufficient to deal with the realm of new technologies and novel forms of participation and content production, thus the author names a non-exhaustive set of new literacies and defines them accordingly. Chian Tan, Pan & Cui (2014) perceive social innovation as a multi-dimensional phenomenon linked to the evolution of ICTs and encompassing three synergic dimensions, content or the satisfaction of basic human needs, process or the changes in social relations and empowerment of individuals and communities. Regarding information literacy, Chian Tan, Pan & Cui (2014) perceive it as inextricably linked to the

availability of tools, personal capabilities and the ability to transform information, networks and systems into independence and opportunity in the digital media. In order to do so, individuals are required to develop all dimensions of information literacy proposed by Vitorino & Piantola (2011), since they have to understand how information is produced and consumed and what kinds of information are considered relevant by whom and why. Righetto & Vitorino (2020) consider social innovation as knowledge applied to social needs through the participation and cooperation of multiple social actors as well as regarding the three dimensions of social innovation. Moreover, the authors consider that social innovation is equal to social entrepreneurship, in which entrepreneurship aims at a social purpose. Concerning information literacy, Righetto & Vitorino (2020) also take into consideration the four dimensions of information literacy as proposed by Vitorino & Piantola (2011), with an emphasis on citizenry and on the emancipation of vulnerable communities. Potnis & Gala (2022) approached social innovation in the context of libraries and regarded a social innovation as a novel solution that creates social value for the communities and individuals that use the local library. Regarding information literacy, Potnis & Gala (2022) also defined related literacies necessary for everyday financial dealing and proposed a toolkit model to be used by public libraries to tackle their users' ability to perform in financial situations.

Table 5 below illustrates the approaches and methods used in the selected articles, in response to the third question presented at the SLR protocol.

Table 5 - Approaches and methods used in the selected articles.

AUTHORS	APPROACH	METHODS
Karvalics (2013)	Qualitative	Literature review
Chian Tan, Pan & Cui (2014)	Qualitative	Multiple case study in four Taobao (e-commerce) villages in rural China; 103 semi-structured interviews were conducted with local merchants, villagers, net entrepreneurs, government and provincial officials; To analyze data, a combination of coding as well as temporal bracketing, narrative and visual mapping strategies were used and triangulated with secondary data (newspaper articles, books and corporate website information from Taobao enterprises).

Karvalics (2014)	Qualitative	Literature review
Righetto & Vitorino (2020)	Qualitative	Literature review
Potnis & Gala (2022)	Qualitative	<p>The research consisted of a three-year plus study that followed the following steps:</p> <ul style="list-style-type: none"> • Literature review to develop the toolkit with open-ended questions; • Discussion of toolkit concept with 5 maids and two janitors; • Customization of the toolkit in the form of a survey questionnaire, a focus group questionnaire, and a set of hands-on exercises; • Translation of the toolkit from English to Gujarati; • Using 10 public libraries from rural and urban locations as test sites for the toolkit for a period of 3 months; • For each library, conduction of 3-hour sessions that consisted of a focus group discussion, a survey, and hands-on activities with the participants in Gujarati (participants signed informed consents); • Validation of toolkit utility with participants and librarians; • Customization toolkit based on responses from participants; • Dissemination of toolkit by means of a website and library networks.

Source: The authors.

According to table 5, all articles selected were of a qualitative nature and three of them consisted of literature reviews, whereas two were primary studies. Chian Tan, Pan & Cui (2014) used semi-structured interviews and documentary data to verify the perceptions of actors of Chinese e-commerce about information processing and their capabilities to use digital tools required in the business. To these authors, information processing capabilities enable digital social innovation. Potnis & Gala (2022) report ten steps that were carried out in order for them to develop a toolkit to be used in public libraries across India. These steps included the use of a survey questionnaire, a focus group questionnaire, and a set of hands-on exercises, which were later tested and validated in a number of public libraries.

Table 6 below shows relevance scores that were awarded to the articles according to the relevance criteria proposed in the SLR protocol.

Table 6 - Approaches and methods used in the selected articles

AUTHORS	RELEVANCE CRITERIA	SCORES
Karvalics (2013)	1. Does the article clearly respond to or contribute to the objective of the research?	0,5
	2. Does the article clearly present evidence of the correlation between information literacy and social innovation?	0
	3. Does the article clearly present research methods and evaluation criteria?	0
Chian Tan, Pan & Cui (2014)	1. Does the article clearly respond to or contribute to the objective of the research?	1,0
	2. Does the article clearly present evidence of the correlation between information literacy and social innovation?	1,0
	3. Does the article clearly present research methods and evaluation criteria?	0,5
Karvalics (2014)	1. Does the article clearly respond to or contribute to the objective of the research?	0,5
	2. Does the article clearly present evidence of the correlation between information literacy and social innovation?	0
	3. Does the article clearly present research methods and evaluation criteria?	0
Righetto & Vitorino (2020)	1. Does the article clearly respond to or contribute to the objective of the research?	1,0
	2. Does the article clearly present evidence of the correlation between information literacy and social innovation?	1,0
	3. Does the article clearly present research methods and evaluation criteria?	0
Potnis & Gala (2022)	1. Does the article clearly respond to or contribute to the objective of the research?	1,0
	2. Does the article clearly present evidence of the correlation between information literacy and social innovation?	1,0
	3. Does the article clearly present research methods and evaluation criteria?	1,0

Source: The authors.

According to table 6, the articles that present the most relevance were those that consisted of primary studies (POTNIS; GALA, 2022; CHIAN TAN; PAN; CUI, 2014), since they provide a more tangible correlation between social innovation and information literacy. The literature review by Righetto & Vitorino (2020) is also relevant, since it provides readers with a comparison between patterns, principles and precepts of social innovation and information literacy, emphasizing similarities and points in common to base their analysis. The articles that were considered the least relevant in the selection were those by Karvalics (2014, 2013), because this author just mentioned the benefits of social innovation without defining the term or attempting any correlation between the two areas.

4 Final considerations

The purpose of the present article was to report on the findings of a systematic literature review (SLR) that aimed at presenting whether information literacy was correlated to social innovation in scientific literature to support the proposition that both areas are correlated and can be jointly approached in interdisciplinary studies, with mutual benefit. This can lead to a consolidation of both areas concerning conceptual definitions, theoretical and applied research approaches.

Even though the search was carried out in four (4) large international databases and the terms used aimed at a more extensive result, results actually obtained were scarce and only five (5) articles were retrieved. In spite of this fact, three (3) out of the five articles were considered relevant to the conducted search and contributed in confirming a correlation between social innovation and information literacy in scientific literature, after an analysis of objectives, main findings, concepts of both information literacy and social innovation and the methods used in the articles. Besides, the retrieved articles come from a variety of countries and mostly consisted of literature reviews and only two of them were primary studies.

The few articles retrieved suggest that the topic has a potential field of study, since frameworks and patterns as well as indicators and methodologies of both thematic areas can be interchangeably used to strengthen research and applications of both social innovation and information literacy. As the findings suggest, social emancipation can be achieved by the development of social innovations to equip vulnerable individuals and populations to deal with technological advances and meet social needs.

As suggestion for future research, one recommends further exploratory, documentary and empirical studies on information literacy to promote social innovation.

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References

ANDRÉ, Isabel; ABREU, Alexandre. Dimensões e espaços da inovação social. **Finisterra**, Lisboa, v. 41, n. 81, p. 121-141, 2006. Disponível em: <https://doi.org/10.18055/Finis1465>. Acesso em: 20 jan. 2023.

AVELINO, Flor *et al.* Transformative social innovation and (dis)empowerment. **Technological Forecasting & Social Change**, New York, v. 145, p. 195-206, 2019. Available in: <https://doi.org/10.1016/j.techfore.2017.05.002>. Access on: 20 jan. 2023.

BELLUZZO, Regina Célia Baptista. O estado da arte da competência em informação (CoInfo) no Brasil: das reflexões iniciais à apresentação e descrição de indicadores de análise. **Revista Brasileira de Biblioteconomia e Documentação**, São Paulo, v. 13, n. especial, p. 47-76, 2017.

BERRÍO ZAPATA, Cristian. Entre la alfabetización informacional y la brecha digital: Reflexiones para una reconceptualización de los fenómenos de exclusión digital. **Revista Interamericana de Bibliotecología**, Medellín, Colombia, v. 35, n. 1, p. 39-53, 2012.

BESANÇON, Emmanuelle; CHOCHOY, Nicolas; GUYON, Thibault. **L'innovation sociale: principes et fondements d'un concept**. Paris: L'Harmattan, 2013.

BRUCE, Christine Susan. **Informed Learning**. Chicago: Association of College and Research Libraries, 2008.

BRUCE, Christine Susan. **The seven faces of information literacy**. Adelaide: Auslib Press, 1997.

CHIAN TAN, Felix Ter; PAN, Shan Ling; CUI, Lili. an information processing perspective of digital social innovation: insights from china's taobao villages. *In: INTERNATIONAL CONFERENCE ON INFORMATION SYSTEMS: BUILDING A BETTER WORLD THROUGH INFORMATION SYSTEMS* 16., 2014, Auckland, New Zealand. **Proceedings** [...], Auckland, New Zealand, dez. 2014. p. 1-12.

CORRÊA, Elisa Cristina Delfini; CASTRO JÚNIOR, Orlando Vieira de. Perspectivas sobre competência em informação: diálogos possíveis. **Ciência da Informação**, Brasília, v. 47, n. 2, p.35-51, 2018.

CUEVAS-CERVERÓ, Aurora; MARQUES, Márcia; PAIXÃO, Pablo Boaventura Sales. A alfabetização que necessitamos: informação e comunicação para a cidadania. **Informação & Sociedade: Estudos**, João Pessoa, v. 24, n. 2, p. 35-48, 2014.

DE LUCCA, Djuli Machado; NEUBERT, Patricia da Silva. A produção científica mundial sobre Competência em Informação: análise dos documentos indexados na Web of Science. **Em Questão**, Porto Alegre, v. 26, n. 3, p. 380-407, 2020. Disponível: <https://doi.org/10.19132/1808-5245263.380-407>. Acesso em: 20 jan. 2023.

EDWARDS-SCHACHTER, Mónica; WALLACE, Matthew L. ‘Shaken, but not stirred’: Sixty years of defining social innovation. **Technological Forecasting and Social Change**, New York, v. 119, p. 64-79, 2017. Disponível em: <https://doi.org/10.1016/j.techfore.2017.03.012>. Acesso em: 20 jan. 2023.

FORESTI, Fabricio *et al.* A Economia Solidária em Ciência da Informação: interrelações e atuações possíveis. **Em Questão**, Porto Alegre, v. 24, n. 2, 2018. Disponível em: <https://doi.org/10.19132/1808-5245242.165-187>. Acesso em: 20 jan. 2023.

GARNER, Sarah Devotion. Beacons of the Information Society: The Alexandria Proclamation on Information Literacy and Lifelong Learning. *In: HIGH-LEVEL COLLOQUIUM ON INFORMATION LITERACY AND LIFELONG LEARNING*, 2005, Bibliotheca Alexandrina, Alexandria. **Colloquium** [...]. Haia: IFLA, 2005. p. 3.

GARCIA, Cristiane Luiza Salazar. **Fragmentos teóricos de domínios de pesquisa da Ciência da Informação**: perspectiva metateórica para Gestão do Conhecimento e Competência em Informação. 2018. Dissertação (PhD em Ciência da Informação) - Centro de Ciências da Educação da Universidade Federal de Santa Catarina, Florianópolis, 2018.

GÓMEZ-HERNÁNDEZ, José-Antonio; SAORÍN, Tomás. Trends in information literacy programmes to empower people and communities: social technologies supporting new citizen needs. *In: PASSARELLI, Brasilina; STRAUBHAAR, Joseph; CUEVAS-CERVERÓ, Cuevas-Cerveró (eds.). Handbook of research on comparative approaches to the Digital Age Revolution in Europe and the Americas*. Hershey, PA: IGI Global, 2015, p. 315-331.

HARRISSON, Denis; KLEIN, Juan-Luis. Introduction. *In: KLEIN, Juan-Luis; HARRISSON, Denis (org.). L’innovation sociale: émergence et effets sur la transformation des sociétés*. Québec: Presse Universitaires du Québec, 2007, p. 1-14.

HOCHGERNER, Josef *et al.* Vienna Declaration: the most relevant topics in social innovation research. *In: CHALLENGE SOCIAL INNOVATION*, 2011, Vienna, Austria. **Innovating innovation by research - 100 years after Schumpeter**. Vienna: Net4Society, 2011.

HORTON JR., Forest Woody. **Understanding information literacy: a primer - An easy-to-read, non-technical overview explaining What “information literacy” means**, designed for busy public policy-makers, business executives, civil society administrators and practicing professionals. Paris: UNESCO, 2007.

Available in: <https://unesdoc.unesco.org/ark:/48223/pf0000157020>. Access on: 10 nov. 2022.

KARVALICS, László Z. Emerging new information literacies: a conceptual outlook. *In: EUROPEAN CONFERENCE ON INFORMATION LITERACY (ECIL), 2., 2014, Dubrovnik. Information Literacy: lifelong learning and digital citizenship in the 21st century.* Dubrovnik: Springer, 2014. p. 37-46. (Communications in Computer and Information Science).

KARVALICS, László Z. From scientific literacy to lifelong research: a social innovation approach. *In EUROPEAN CONFERENCE ON INFORMATION LITERACY (ECIL), 1., 2013, Istanbul. Worldwide commonalities and challenges in Information Literacy research and practice.* Istanbul: Springer, 2013. p. 126-133. (Communications in Computer and Information Science).

KITCHENHAM, Barbara Ann; BUDGEN, David; BRERETON, Pearl. **Evidence-Based Software Engineering and Systematic Reviews.** Boca Raton, FL: CRC Press, 2016.

LEE, Alice *et al.* **Conceptual relationship of information literacy and media literacy in knowledge societies: series of research papers.** Paris: United Nations Educational Scientific and Cultural Organization, 2013.

LLOYD, Annemaree. **The qualitative landscape of Information Literacy research: perspectives, methods and techniques.** London: Facet Publishing, 2021.

LLOYD, Annemaree. **Information literacy landscapes: Information literacy in education, workplace and everyday contexts.** Oxford: Chandos Publishing, 2010.

LUPTON, Mandy. **Information literacy and learning.** 2008. Dissertation (PhD) Faculty of Information Technology - Queensland University of Technology, Brisbane, 2008.

MARQUES, Márcia; SIMEÃO, Elmira Melo. Alfabetização em informação como eixo do modelo de ação comunicativa para redes sociais em ambientes digitais. *In: BELLUZZO, Regina Célia Baptista; FERES, Glória Georges; VALENTIM, Marta Lígia Pomim (org.). Redes de conhecimento e competência em informação: interfaces da gestão, mediação e uso da informação.* Rio de Janeiro: Interciência, 2015, p. 59-85.

MOULAERT, Frank. Recommandations méthodologiques pour l'analyse de l'innovation sociale: une perspective critique sur l'épistémologie des systèmes d'innovation territoriaux. In: KLEIN, Juan-Luis *et al.* (org.). **La transformation sociale par l'innovation sociale**. Montreal: Presses de l'Université du Québec, 2016, p. 65-78.

MOULAERT, Frank; MACCALLUM, Diana. **Advanced introduction to social innovation**. Cheltenham, UK: Edward Elgar Publishing, 2019.

MOULAERT, Frank *et al.* Towards Alternative Model(s) of Local Innovation. **Urban Studies**, London, v. 42, n. 11, p. 1969-1990, 2005. Available in: <https://doi.org/10.1080/00420980500279893>. Access on: 20 jan. 2023.

NAÇÕES UNIDAS (Brasil). Transformando nosso mundo: a agenda 2030 para o desenvolvimento sustentável. **Nações Unidas Brasil**, Brasília, 15 set., 2015. Disponível em: <https://brasil.un.org/pt-br/91863-agenda-2030-para-o-desenvolvimento-sustentavel>. Acesso em: 25 set. 2021.

PHILLIPS, Wendy *et al.* Social innovation and social entrepreneurship: a systematic review. **Group & Organization Management**, Thousand Oaks, v. 40, n. 3, p. 428-461, 2015. Available in: <https://doi.org/10.1177/1059601114560063>. Access on: 20 jan. 2023.

POTNIS, Devendra; GALA, Bhakti. "unified mobile, financial, and information literacy toolkit": a social innovation for public libraries to alleviate poverty in developing countries. **Library Quarterly**, Chicago, v. 92, n. 1, p. 68-86, 2022. Available in: <https://doi.org/10.1086/717230>. Access on: 20 jan. 2023.

RIGHETTO, Guilherme Goulart; VITORINO, Elizete Vieira. A competência em informação como movimento de inovação social. **Investigación Bibliotecológica**, Ciudad de México, v. 34, n. 82, p. 29-52, 2020. Disponível em: <http://dx.doi.org/10.22201/iibi.24488321xe.2020.82.58080>. Acesso em: 20 jan. 2023.

RIGHETTO, Guilherme Goulart; VITORINO, Elizete Vieira. **#Transliteracy: competência em informação voltada às pessoas trans***. São Paulo: Pimenta Cultural, 2019.

RIGHETTO, Guilherme Goulart. **Competência em informação de minorias sociais: pessoas trans da região de Florianópolis**, Santa Catarina. 2018. Tese (Mestre em Ciência da Informação) - Universidade Federal de Santa Catarina, Florianópolis, 2018.

SANTOS, Alessandra de Souza; MAIA, Luiz Cláudio Gomes; PINHEIRO, Marta Macedo Kerr. Competência em informação e inovação social: a interdisciplinaridade em foco. **InCID: Revista de Ciência da Informação e Documentação**, São Paulo, v. 13, n. 1, p. 27-46, 2022a. Disponível em: <https://doi.org/10.11606/issn.2178-2075.v13i1p27-46>. Acesso em: 20 jan. 2023.

SANTOS, Alessandra de Souza; MAIA, Luiz Cláudio Gomes; PINHEIRO, Marta Macedo Kerr. Competência em Informação como fator de Inovação Social: emancipação social pela transformação. **Brazilian Journal of Information Science: research trends**, Marília, v. 16, p. e02149, 2022b. Disponível em: <https://doi.org/10.36311/1981-1640.2022.v16.e02149>. Acesso em: 20 jan. 2023.

SANTOS, Alessandra de Souza; MAIA, Luiz Cláudio Gomes; PINHEIRO, Marta Macedo Kerr. A Teoria da Atividade na Compreensão da Competência em Informação como Inovação Social. **Brazilian Journal of Information Science: research trends**, Marília, v. 15, p. e02129, 2021. Disponível em: <https://doi.org/10.36311/1981-1640.2021.v15.e02129>. Acesso em: 20 jan. 2023.

SANTOS, Alessandra de Souza. Competência em informação e inovação social. *In: VALENTIM, Marta; BELLUZZO, Regina Célia Baptista (org.). Perspectivas em competência em informação*. São Paulo: ABECIN Editora, 2020, p. 203-231.

UNITED NATIONS. Universal Declaration of Human Rights. **United Nations**, San Francisco, 10 dec., 1948. Available in: <https://www.un.org/en/about-us/universal-declaration-of-human-rights>. Access on: 30 jan. 2022.

VITORINO, Elizete Vieira. A competência em informação e a vulnerabilidade: construindo sentidos à temática da “vulnerabilidade em informação”. **Ciência da Informação**, Brasília, v. 47, n. 2, p. 71-85, 2018.

VITORINO, Elizete Vieira; PIANTOLA, Daniela. Dimensões da competência informacional (2). **Ciência da Informação**, Brasília, v. 40, n. 1, p. 99-110, 2011. Disponível em: <https://doi.org/10.1590/S0100-19652011000100008>. Acesso em: 20 jan. 2023.

Competência em informação como inovação social: uma revisão sistemática de literatura

Resumo: Na contemporaneidade, a falta de capacidade de indivíduos e de comunidades em analisar e utilizar a informação de forma crítica e de acompanhar os ciclos de avanços tecnológicos resulta em desvantagem e em manutenção de contextos hegemônicos. Este artigo apresenta uma Revisão Sistemática da Literatura com o objetivo de levantar se a competência em informação tem sido correlacionada à inovação social na literatura, para embasar a afirmativa de que ambas as áreas são correlacionadas e podem ser abordadas conjuntamente em estudos interdisciplinares, com benefícios para o estudo das duas áreas temáticas. Os resultados a partir da busca nas bases de dados Scopus, Web of Science, SAGE Open e Academic Search Premier foram escassos e sugerem que a temática possui um campo potencial de estudos, o que abre

espaço para a sugestão de pesquisas futuras que objetivem estudos exploratórios, documentais e empíricos sobre a competência em informação para promoção de inovação social.

Palavras-chave: inovação social; competência em informação; interdisciplinaridade; emancipação social

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