

An overview of prominent topics on teaching Sustainability and Information Literacy

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An overview of prominent topics on teaching Sustainability and Information Literacy

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ABSTRACT: Sustainable development can most simply be described as development that meets the needs of today's generations, without jeopardising the ability of future generations to satisfy their own needs. Information literacy competencies are crucial for successfully approaching sustainability issues. It is possible for information literacy courses to raise awareness and understanding of the concept of sustainable development. Students should be educated about information literacy and sustainability, and this requires the creation of an appropriate curriculum. Information professionals not only teach information literacy skills but will also be a leading force in creating effective methods for teaching sustainable thinking in information literacy, which includes raising the awareness about the importance of sustainable development, and intertwining information literacy with sustainability in various contexts. Information skills, primarily critical thinking skills are essential for solving complex problems, but also positive attitudes about the importance of sustainable development need to be promoted. The goal of this overview of prominent topics in teaching Sustainability and Information Literacy is to identify and map key concepts pertaining to information literacy instruction in the context of sustainable development. The analysis was conducted using a bibliometric approach, applying the VOSviewer tool and SCOPUS bibliographic database data. Papers linking information literacy and sustainable development in education were searched, resulting in 159 relevant publications, with no time limit. The analysis revealed topics such as green libraries, digital

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and critical literacy, and the integration of sustainability into teaching. Libraries, research skills, and participatory methods emerged as key for developing information literacy. A growing interest in this topic in higher education was also noted. Overall, information literacy is essential for achieving sustainable development, as it enables critical evaluation of information and supports lifelong learning. Libraries can play a key role in this process.

KEYWORDS: information literacy, sustainability, sustainable development, education, SCOPUS

INTRODUCTION

The 2030 Agenda for Sustainable Development (United Nations, 2015), adopted by all United Nations Member States in 2015, includes 17 Sustainable Development Goals (SDGs) which encompass ending poverty and inequality, improving education, and tackling climate change. Teaching information literacy is inherently related to the Goal number 4 – Quality Education. One of SDGs indicators is ensuring that all learners acquire the competencies needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles. More broadly, it is about providing lifelong learning opportunities for all. However, it could be argued that to provide opportunities for lifelong learning, it is necessary to empower students with competencies for learning from multiple sources of information, recognising quality information and actively participating in the creation and sharing of new knowledge. Such information literacy competencies are the basis for successfully approaching problems, challenges and opportunities related to all 17 sustainable development goals.

According to Zurkowski (1974) who first coined the term information literacy, “information is not knowledge; it is concepts or ideas which enter a person’s field of perception, are evaluated and assimilated, reinforcing or changing the individual’s concept of reality and/or ability to act. As beauty is in the eye of the beholder, so information is in the mind of the user.” In today’s world when technology is rapidly being developed and is heavily relied upon in our everyday life more than ever it is important to know how to use it properly and safely. Everything we do will leave a digital trace and that could affect us in a both positive and negative way. That is why we

need to acquire a set of information literacy competencies that will enable us to navigate the digital and information world safely.

Sustainable development is most simply described as development that meets the needs of today's generations, without jeopardizing the ability of future generations to satisfy their needs. As supported by the authors Repanovici, Rotaru and Murzea (2021) it is possible for information literacy courses to raise awareness and understanding of the concept of sustainable development. Students should be educated about information literacy and sustainability, and this requires creating an appropriate curriculum. Author Wikforss (2021) believes that recognising the truth is one of the essential components of education because it is necessary to teach children to recognise it in everyday life in order to avoid the influence of misinformation. Today, younger generations growing up with technology are exposed to various sources of information, which is why they need to be educated on how to recognise required or truthful information in a sea of available information, and how to use it ethically.

The goal of this overview of prominent topics in teaching Sustainability and Information Literacy was to identify and map key concepts pertaining to information literacy instruction in the context of sustainable development.

METHOD

VOSviewer (2024), a bibliometric tool for visualization of concept relations was applied, with the data gathered from the SCOPUS database. The bibliographic data from the SCOPUS database was gathered with the following search: (TITLE-ABS-KEY ("sustainability" OR "sustainable development") AND TITLE-ABS-KEY ("information literacy") AND ALL (teaching OR instruction OR learning OR education)). The search was performed on January 9, 2024, with no data range limit. The oldest document in the results was from 2005. There were 159 documents found, and none were disregarded. The figure (Appendix) includes various prominent topics and contexts. For example, academic, public, digital, and green libraries, the concepts of digital, media, and critical information

literacy, followed by pedagogies related to lifelong, online and blended learning, and also active research and faculty-librarian collaboration. Some of the additional concepts include education for sustainable development, entrepreneurship, innovation, and social justice.

RESULTS AND DISCUSSION

In this overview of prominent topics on teaching information literacy and sustainability, several topics are explored in more detail. Authors Kurbanoglu and Boustany's work (2014) was focused on how to transform informational literacy into green and contribute to green library movement. For this they analysed relevant publications both past and recent. They found that "Reducing the ecological footprint of our information behaviour, choices and actions is possible by developing sustainable thinking skills as part of our information literacy skills repertoire." (Kurbanoglu & Boustany 2014). It is necessary for us to recognise that there is a dire need for more information pertaining to the concept of green information literacy which is unfortunately neglected. Other than that, we need to embed sustainable thinking into information literacy instruction. Like them but from another approach authors Parker and Veeraghanta (2013) talked about "Embedding information literacy within sustainability research: first year student's perspectives". In her paper she presented the argument that integrating content pertaining information literacy into an undergraduate research project will give first year students an opportunity to develop and acquire skills for lifelong learning. Results shown were mixed, some students progressed with time and more lessons while others showed less improvement.

Authors Cisek and Krakowski (2021) have explored how participant-created visual materials were employed in information literacy research in the second decade of the 21st century. Results showed that the potential of participant – generated visual data is not fully realized by information literacy researchers. Verbal data coming from qualitative methods prevailed in studies ranging from 2011 to 2020. Despite that some visual data gathering techniques did appear. They have also noted that participatory

visual methods favor the participant's own views over the researchers' presumptions and are important in understanding the information literacy problems.

Discussion about sustainability is spreading in higher education as awareness about it keeps increasing, which is supported by work from author Stark (2011). She talked about integrating sustainability into information literacy instruction through libraries. Furthermore, library organizations are addressing sustainability and finding various ways to incorporate green thinking into action. This goal should have specific measures like sustainable strategies that should be integrated into all decisions that are important for library institutions, for example: collections, digitalization of paper books and documents, equipment, services that they offer etc. Other than this as someone that works in a library it is their goal to spread literacy and in this case information literacy as well. This is their responsibility to teach and spread knowledge to others, especially school and academic libraries. Their role is to foster information literacy across the curriculum to instill and promote lifelong critical thinking. From this we can see that a certain understanding and balance needs to be achieved between humans and their environment in order to accomplish sustainability. This means that rather than just libraries and their staff, students too need to be involved in this process. They need to learn not just information literacy "skill set" but also critical thinking that will help them when they become part of the working society. According to Stark, "It is the role of academic libraries to foster information literacy across the curriculum in a way that promotes and instills life-long critical thinking. As a cornerstone of academic librarianship, information literacy should be included in discussions about sustainability and academic libraries" Stark (2011). She further explains how sustainability should become an integral way of thinking, inherently connected to critical and applied thinking.

Authors Lambrechts and Van Petegem (2016) have explored specific competences for sustainable development within the context of higher education. They focused on strengthening research competencies for sustainability. They have mapped the research competencies to the information literacy concepts and have shown that research skills and

research-based pedagogical methods are exceptionally important for sustainable development. The sustainability issues are complex, require multiple sources of information and a critical approach which is at the core of information literacy competencies.

We are an information society or a networked society, as defined by author Castells (2004), because we are all connected, and information is constantly being created and shared. Through the internet, we can connect to any part of the world and, by extension, to people themselves, as the author defines the internet as a network consisting of a set of nodes, and we can connect to the whole network by accessing one of these nodes. Society is dynamic (Fuchs, 2007), meaning it is constantly changing, and we need to be able to keep up with it. Teachers have a very important role to play in laying the foundations for further learning, i.e. lifelong learning. In addition to schools teaching children about the possible dangers of media and the importance of new literacies that are essential in today's world, the role of information professionals is also important. Information professionals not only teach information literacy skills but will also be a leading force in creating effective methods for teaching sustainable thinking in information literacy, which includes raising awareness of the importance of sustainable development and intertwining information literacy with sustainability in various contexts. Information skills, primarily critical thinking skills are essential for solving complex problems, but positive attitudes about the importance of sustainable development also need to be promoted.

CONCLUSION

In this paper, some of the prominent topics and contexts are emphasized in the literature reviewed. The VOSviewer visualization of concept relations covers a larger number of topics. Salient topics that need to be further explored in more extensive literature reviews include pedagogies related to lifelong, online and blended learning, and active research and faculty-librarian collaboration. Empowering students with information literacy competencies is a key for successfully approaching sustainability issues.

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