

SYSTEMATIC LITERATURE REVIEW: CIVIC ENGAGEMENT IN THE CONTEXT OF DIGITAL CITIZENSHIP

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Abstract

Civic engagement includes social and political dimensions, and the two dimensions are interrelated in line with this. In this study, the author uses the Scientific Procedures and Rationales for Systematic Literature Reviews protocol (SPAR-4-SLR). In the protocol, there are three stages and six sub-stages. The stages consist of Assembling, Arranging, and Assessing, and the sub-stages consist of Identification, Acquisition, Organization, Purification, Evaluation, and Reporting. Furthermore, the author used thematic, descriptive, and bibliometric analysis techniques. In bibliometric analysis, the author used the VOSviewer application version 1.6.20. The study's results using the Systematic Literature Review (SLR) method using the SPAR-4-SLR protocol show the breadth of research developments related to digital citizenship and civic engagement in various topics and various types of studies or methods. The diversity of country and institutional backgrounds of the authors of articles related to Digital Citizenship and Civic Engagement from each article also shows the broad interest value in the category.

Keywords: *Civic Engagement; Digital Citizenship; Education*

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INTRODUCTION

Civic engagement is often associated with action by a person or participation. *Civic engagement* can be defined as Action by a person directed towards social outcomes Müssig & Okrug (2024). In addition, civic engagement is a concept that is related to the importance of democracy. This is in accordance with the statement put forward by Müssig & Okrug (2024) which states that civic engagement is a prerequisite for a clear, functional, and responsive democracy. Adler & Goggin (2005) define

civic engagement as participation in volunteer service in a local community, both individuals and groups.

From the statements above, civic engagement is closely related to actions and participation that occur both socially and politically. This is by the statement from Leach et al. (2024) which states that civic engagement includes social and political dimensions, which are interrelated. In line with this, Adler & Goggin (2005) state that civic engagement consists of several dimensions and aspects at the individual and

group levels that emphasize various aspects of the concept. One of the greatest benefits of civic engagement across all ages and conditions is that it can create a just and equal society, where people come together for something meaningful Ardoin et al. (2023). Nevertheless, several challenges to the cohesion and participation of society in democracy still can be found. This is by Putnam's statement which states a warning in his suggestion, that at some point, individualism can cause a social community to become strained and there is a rejection of democracy Mohr Carney et al. (2023). In addition, technology can be one of several challenges. The rapid development of technology today is accompanied by public enthusiasm in the use of technology. As we can see the use of technology in various aspects of human life today. Coupled with the rapid and radical changes after the pandemic where the use of technology is used in various human activities Ribble (2021). The rapid development of technology is characterized by the presence of technology in every socio-economic levels and it is almost impossible to separate online and offline life Stoilova et al. (2016).

The development of technology today allows people to interact directly and quickly, such as making comments on social media about news and even giving their opinions about news Gil de Zúñiga & Diehl (2017). In fact, the world of education cannot be separated from technological developments, one of which is technology-based educational media such as electronic learning or websites. Ihza et al. (2023). In fact, in the current era, learning resources

are not only obtained from teachers but can be obtained anywhere, anytime, and by anyone with the help of technology. Ratumbuisang & Ratumbuisang (2023). Therefore, it requires skills that all technology users must have to work effectively. Especially for children who have used technology from an early age, this ability is called digital citizenship Ribble (2021). The ability of digital citizenship is an important point in the success of children in today's digital age Zhong & Zheng (2023). Digital Citizenship can be defined as the appropriateness, ethics, and responsibility of a person in using technology from websites to social networking Walters et al. (2019). Therefore, the abilities that people must have as internet users, especially children, are considered important. As well as, finding out how children's involvement in communicating with the internet is not only the relationship or relationship between children and the internet because of technology and the internet that has been embedded in children's lives at an early age Fischer et al. (2023).

Not only children, in preparing humans in the digital era, one of which is digital awareness is important for people to have to create a conducive life in the digital era. As expressed by Hidayah & Hamonangan (2024) who stated that digital awareness is a solution in the meeting between technological development and the digital awareness crisis of the younger generation. For example, digital citizenship has become a vital need in the education area. Şenel (2022) state that Digital

Citizenship is important for all things, one of which is the field of education, because it must also follow and not ignore technological developments. Several efforts can be made to prepare humans in the digital era. Ruchiyat et al. (2024) state that efforts to optimise the use of technology are not only for practical purposes but also for positive changes in people's mindset and life. One of the efforts in creating human development in the digital era is the study of digital literacy, for example through social media. In order to create a balance of digital human education development Dahur & Solosumantro (2024). In addition to this, in relation to civic engagement, digital citizenship also has a vital position, considering that with the help of the internet, which is now increasingly easy to access, communicating is also easier. As stated by Heo & Peng (2024) that the higher the level of internet penetration will have the possibility of increasing the level of civic engagement in society.

Previous research with appropriate methods and topics is fundamental to determining the research gap in a study. Therefore, the author cites several articles as previous research, as follows. 1) Gameful Civic Education: A systematic literature review of empirical research Aura et al. (2022), A systematic literature review of research examining the impact of citizenship education on active citizenship outcomes Jerome et al. (2024), From several previous studies, the author found a research gap, namely the lack of research related to civic engagement in the context of digital citizenship competences.

METHOD

In this research, the author used the SPAR-4-SLR protocol developed by Paul et al. (2021). In this protocol, there are three stages and six sub-stages. These stages consist of Assembling, Arranging, and Assessing, and the sub-stages consist of Identification, Acquisition, Organizing, Refining, Evaluation, and Reporting Paul et al. (2021). In this study, the author uses the systematic literature review method. By using this method, the author can map, assess existing research, and even identify and find research gaps for the benefit of research and scientific development Mengist et al. (2020).

In addition, conducting a literature search can also identify the breadth of a research topic to be studied Carrera-Rivera et al. (2022). In this systematic literature review study, the author must determine a protocol to ensure validity and transparency in identifying through document sources. As explained by Mengist et al. (2020), the difference between SLR and traditional review is that SLR uses the principles of replicable, scientific, and transparency. Therefore, the author uses the SPAR-4-SLR protocol developed by Paul et al. (2021).

As explained by Kitchenham & Charters (2007) in Systematic Review, determining the research question is the most crucial step. This is because the research question determines the direction of the SLR research. Therefore, the author designed several research questions. This

study aims to discover how research development related to the importance of implementing digital citizenship competencies towards civic engagement capabilities. The stages carried out by the author include (1) Formulating research question, (2) determining article criteria and sorting, (3) determining the data database to be used, (4) determining keywords, (5) sorting articles, (6) analysing.

RQ1. How are research activities related to digital citizenship and civic engagement in the last 6 years?

RQ2. What types of studies are used in these studies?

The data used by the researcher in this study are articles indexed by Scopus. The author also uses the filter feature in the search process. The feature used by the author is the year filter. The author only uses articles according to the context in the range 2019 - 2024.

The keywords used by the author in the Scopus database are.

A. TITLE-ABS-KEY (digital AND citizenship OR civic AND engagement)

From this search, the author obtained 733 documents from 2019 – 2024. From the search results using these keywords, the author found appropriate results; however, the author found the substance was too broad. Then, the author designed a keyword formula that was more related to the substance of the research, resulting in the following formula.

B. TITLE-ABS-KEY (“digital citizenship” AND “civic engagement”)

From searches using these keywords, 36 documents in the form of articles were found. The search results are starting to be leading and appropriate. Next, the author needs to sort it by type, year and accessibility. Therefore, the author used these 36 documents to be processed to the next stage.

RESULT AND DISCUSSION

A. Sorting the Data

After obtaining research data from articles from the Scopus database, the author sorted further data using the SPAR-4-SLR table protocol for Systematic Literature Review. The protocol has four main stages: Assembling, Arranging, and Assessing. The next stage of data sorting using SPAR-4-SLR can be seen as follows:

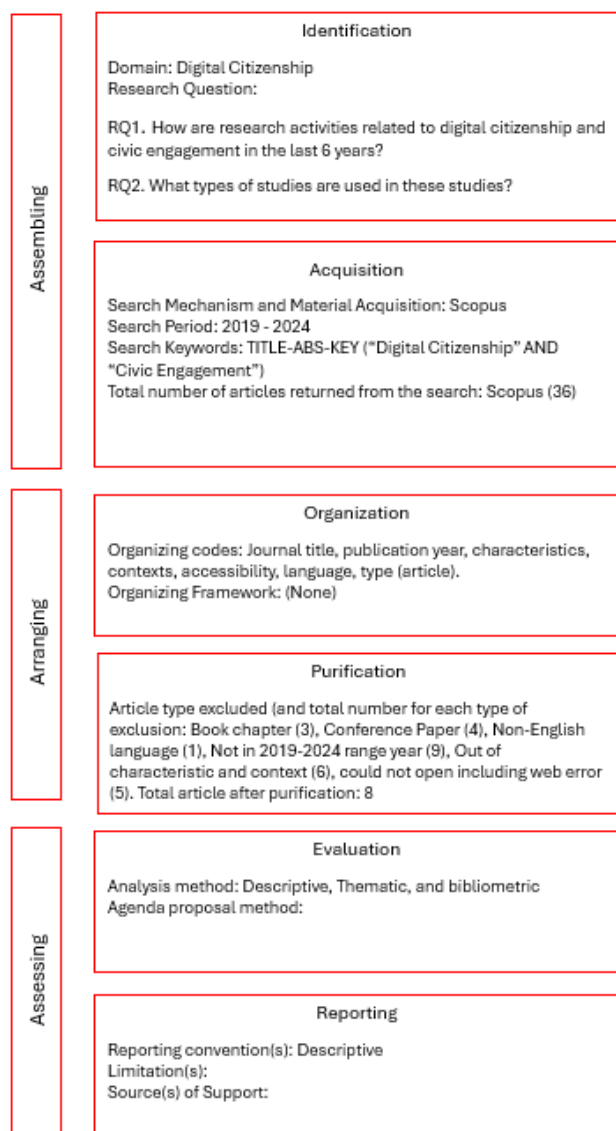


Figure 1. Protocol SPAR-4-SLR

After the author searches using several keywords and the year range filter feature, subsequently, the author sorts the type, year range and accessibility of documents in articles. The author found three book chapters and four conference papers in the first stage of sorting this research data. Then, the author found 1 article in a language other than English and five articles that could not be opened (error/maintenance). Furthermore, the author found that nine documents were not in the

2019 – 2024 range. Therefore, the author found 14 articles resulting from the data reductions.

In the next stage, the author sorts the articles by theme. At this stage, the author categorizes the theme as follows: Digital citizenship is related to competence as a digital citizen (Digital etiquette, digital rights and responsibilities, technology). Civic engagement is related to (Civic education, citizenship education, and participation). The author identified whether the title, abstract and keywords in the 14 articles matched the categories previously described.

In this final stage, the author identified 14 articles that had been obtained according to several categories that had been previously formulated. Searches using these categories are conducted through the article's title, abstract, and keywords. As a result of the thematic data search stage, the author found six articles that did not fit into the categories. The total amount of data obtained by the author through this stage was eight articles.

B. Research activities and types of studies in the last 6 years

After selecting data based on type, year, accessibility and theme, the author describes the data so that research activities related to digital citizenship and civic engagement in the last 6 years.

Tabel 1. Data Extraction Research Question 1

Code	Referenc es [RQ1]	Title	Topic [RQ1]
[1]	Roberts et al. (2023)	Digital Citizenship and the Big Five Personality Traits	Digital Citizenship
[2]	Valdés- Cuervo et al. (2024)	Assessment of an Adolescent Digital Citizenship Scale: Examining Dimensionality, Measurement Invariance and External Validity	Digital Citizenship
[3]	Suing et al. (2024)	Appreciations and practices of digital citizenship in the Andean community.	Civic engagement
[4]	Golob et al. (2024)	European citizenship and digitalization: A new roadmap for interconnection	Citizenship
[5]	Mirra et al. (2022)	Expanding digital citizenship education to address tough issues	Digital Citizenship
[6]	Mulyono et al. (2023)	Online civic engagement through social media: An analysis of Twitter's big data	Civic Engagemen t
[7]	Cornejo-	Impact of	Digital

	Paredes (2024)	online civic participation on the social and labor expectations of peruvian university students	Citizenship
[8]	Cleofas & Labayo (2024)	Youth netizens as global citizens: digital citizenship and global competence among undergraduate students	Civic Engagment

From the table above, it can be understood that articles about civic engagement and digital citizenship can come from various scientific fields and types of studies. This shows that the spectrum of research on civic engagement and digital citizenship is quite broad from year to year (the last 6 years) using various methods.

Next, the author analyzes themes relating to the main theme, the diversity of publication years, and the frequency of research on certain themes. In this case, the author uses bibliometric analysis with the help of the VOSviewer application version 1.6.20. The author presents the results of this analysis in the image below.

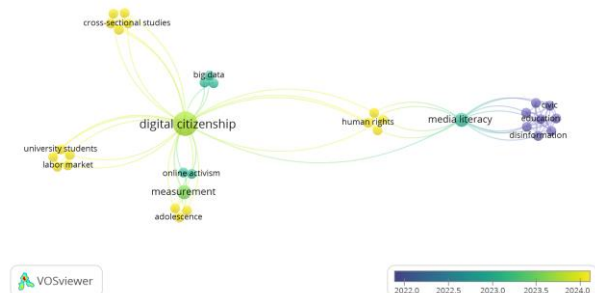


Figure 2. *Bibliometric Analysis of Data*

With document input in the form of previously sorted articles, from the image above, it can be interpreted that research with the theme of Digital Citizenship is related to other themes, such as global competence, cross-sectional studies, big data, social media, online civic engagement, online participation, online activism, media literacy, and civic engagement.

The various years of publication are shown in the image. Cross-sectional studies, global competence, university students, the labour market, online participation, adolescence, reliability, human rights, media, and participation are the dominant themes published around 2024. Digital citizenship and measurement is the dominant theme published in late 2023, while the research theme of civility, civic, student voice, partisanship, disinformation, engagement, misinformation, and education is the dominant theme published in the 2022 range.

When viewed from the topics related to digital citizenship, several new topics have not been researched much. The topics are Cross-sectional studies, global

competence, university students, labour market, online participation, adolescence, reliability, human rights, media, and participation. This means that there are new topics related to digital citizenship that have the potential to be researched in the future.

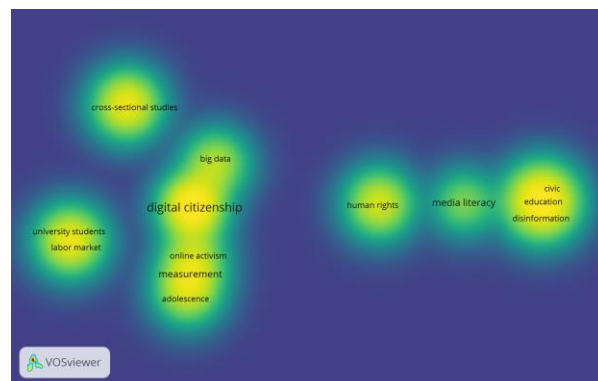


Figure 3. *Bibliometric Analysis of Data*

Furthermore, if we look at density visualization with the help of the VOSviewer application, as we know that research on the topics of digital citizenship and civic education is quite frequent. There are several topics that are close to digital citizenship, but there are still few researchers who have researched these topics in the last 6 years. These topics are big data, online activism, human rights, and media literacy. This is a potential for future research.

C. Type of study used in the research

After the author finds and sorts the research data in the form of articles in the Scopus database. The author found various types of studies based on the data that had been collected. This type of study can be seen in Table 2 as follows.

Table 2. Data Extraction Research Question 2

Survey	Focus Group	Theoretical Studies	Mix Method	Quantitative-Descriptive
[1]				
[3]	[2]	[4] [5]		
			[6]	
				[7]
[8]				

*Code can be seen in Table 1

From the data presentation, as we can see that several articles the author has obtained have a variety of methods or types of research studies. From 2019 to 2024, the methods or types of studies used in documents in 2022 and 2023 were theoretical studies and mix methods. In 2024, the types of studies or methods used in documents in articles were surveys, quantitative descriptive, theoretical studies, interviews, content analysis, and focus groups.

CONCLUSION

The research results using the Systematic Literature Review (SLR) method using the SPAR-4-SLR protocol and this analysis process show significant results. These results illustrate the breadth of research developments related to digital citizenship and civic engagement in various topics and types of studies or methods. The diversity of national and institutional

backgrounds of article writers related to Digital Citizenship and Civic Engagement in each article also shows the broad interest in this category. Therefore, these categories have potential in future research. In addition, after carrying out bibliometric analysis, several topics related to research topics were found that had not been widely researched. This is a potential for further research.

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