PRISMA 2020 Checklist

Nelson Vieira
Faculty of Exact Sciences and Engineering
University of Madeira
Funchal, Portugal
2080511@student.uma.pt

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Section and Topic	Item	Checklist Item	Location where item is reported
TITLE			
Title	1	Privacy in the Internet of Things: Fostering User Empowerment through Digital Literacy - Systematic Literature Review	
ABSTRACT			
Abstract	2	**Background**: The Internet of Things (IoT) has the potential to revolutionize the way we interact with the world around us, but it also raises significant concerns about privacy. **Objective**: This paper proposes the development of an application to foster privacy literacy among users in regards to the IoT. **Methods**: The application will provide users with information about the privacy implications of using IoT devices, as well as tools and resources to help them protect their personal information. Results: Through this application, we aim to empower users to take control of their privacy in the IoT era. Conclusions: By fostering privacy literacy among users, we can help mitigate the risks associated with the widespread adoption of IoT technology and ensure that its benefits are realized in a safe and secure manner.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	
METHODS			
Eligibility Criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses	
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	

Search strategy	7	Keywords: privacy, regulation, legislation, "internet of things", "privacy paradox", IoT, framework, architecture, "differential privacy", "privacy literacy", "user knowledge", "individual knowledge", "privacy rights", "consumer rights", stakeholder, responsibility, awareness, expectation, consent, "privacy notice", blockchain, holochain, security, challenge, challenges, risks, "privacy assistant", sniffer, healthcare, "smart home", "smart house", "smart city", "smart vehicle", "autonomous vehicle", "machine learning", "deep learning", SLR, "systematic literature review", "mapping literature review", "personalized privacy", network, networks, sustainability, approaches, proposals, edge, fog, cloud, "big data", "artificial intelligence of things", survey, study, opportunity, opportunities, "smart agriculture", "trust management", "access control", "data collection", authorization, "privacy concerns", "privacy issues", "privacy challenges", trust, "privacy management", "federated learning", "smart city"; "Privacy regulation proposals for internet of things". "Measuring individual knowledge regarding privacy in the internet of things" "What is the user knowledge regarding privacy in the internet of things"	
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results	
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	

	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	
Study Charac-teristics	17	Cite each included study and present its characteristics.	
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	
Results of indi-vidual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies	
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	
Certainty of evi-dence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	

DISCUSSION

Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	
	23b	Discuss any limitations of the evidence included in the review.	
	23c	Discuss any limitations of the review processes used.	
	23d	Discuss implications of the results for practice, policy, and future research.	

OTHER INFORMATION

Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	
Competing interests	26	Declare any competing interests of review authors.	
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	

TITLE

Title	1	Identify the report as a systematic review.	

BACKGROUND

Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	

METHODS

Eligibility crite-ria	3	Specify the inclusion and exclusion criteria for the review.	
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched.	
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	

Synthesis of results	6	Specify the methods used to present and synthesise results.	

RESULTS

Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	
Synthesis of results	8	Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparing groups, indicate the direction of the effect (i.e. which group is favoured).	

DISCUSSION

Limitations of evidence	9	Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision).	
Interpretation	10	Provide a general interpretation of the results and important implications.	

OTHER

Funding	11	Not applicable.	
Registration	12	Provide the register name and registration number.	

Table 1: PRISMA 2020 Checklist