Trust-based Classification in Community Policing: A Systematic Review

1st Otuu Obinna Ogbonnia
Computer Science Department
Swansea University
Swansea, United Kingdom
2145854@swansea.ac.uk

2nd Joseph Henry Anajemba
Information Security Eng. Technology
Abu Dhabi Polytechnic
Abu Dhabi, UAE
0000-0002-1199-7446

3rd Aguboshim Felix Chkwuma
Computer Science Department
Federal Polytechnic
Oko, Nigeria
aguboshimfelix@gmail.com

4th Deepak Sahoo
Computer Science Department
Swansea University
Swansea, United Kingdom
d.r.sahoo@swansea.ac.uk

Abstract—In recent times, many studies have identified trust as a propeller of community policing for enhancing security and safety. However, this essential aspect of community policing has not been properly classified. This has resulted in ambiguity and misunderstanding of the trust being referred to in community policing context. To cover this gap, this research carried out a systematic review of three scientific journal databases using PRISMA protocol which produced 16 document results after excluding 20,270 studies that didn't meet our criteria. Consequently, community policing trusts were identified and categorized in terms of technology-based trust (TbT), Human-to-Human Trust (HtHT) and Trust for both humans and technology (TbHT). Also, the research further established three themes for improving trust in community policing. In the end, this study has established the significant effect of different categories of trust as it supports community policing. More so, while this research informs on work that has been done on trust and community policing overtime, it provides distinct and comparable terms for future Human Computer Interaction (HCI) research.

Index Terms—Community Policing, Trust, Crime, Technology, Classification, PRISMA

I. INTRODUCTION

The practice of Community Policing (CP) which is based on the idea that people are eager to participate and interact with law enforcement agents [1] has attracted scholarly debates on its effectiveness, especially in developing countries [2]. The philosophy of this practice is based on the idea that law enforcement officers and community members should work together [3], [4] to identify and solve problems related to crime and disorder suffer setbacks hitherto [5]. One major reason for these debates and setbacks is lack of trust between different aspects and participants in community policing activities [6]–[7].

According to Zhang et al. [8], community policing is the collaboration between police and community members, to solve community challenges using technological solutions. In the other hand, trust is the eagerness of an individual to become vulnerable to another individual [9] or technology.

The collaboration in community policing, which is the working together of all stakeholders (citizens, community workers, non-governmental organization, police [8], [10]) with the objective of reducing or ending crime, is a worthwhile adventure for both citizens and the police [11]. Hence, trust among these stakeholders will play an important role for community policing to thrive [1], [6], [7].

When there is trust, information is more likely to be shares crime and suspicious activities [12], [13]. This information can help officers prevent crime before it occurs or apprehend suspects after a crime has been committed [14], [15]. To build trust, law enforcement officers must be visible and approachable in the community [16], [17]. However, this trust building has been very challenging [1], [11], [7] as the concept appears directionless. Evidently, studies that discussed trust in community policing context use the term without any scientific classifications and definitions, and as such, there is ambiguity on the trust scholars refer to in community policing. To shade lights on this indistinctness, this study examines the several studies conducted on trust in community policing perspective. The research carried out a systematic review of the different publication between 1982 (which is the year of first conference of Special Interest Group on Computer-Human Interaction (SIGCHI)) and 2022 using ACM Digital Library, GoogleScholar, and Scopus scientific journal databases.

The major contributions of this research are outlined as follows:

- For better understanding of the concept, this research classifies trust into three clear terms.
- Generates three major themes for improving trust in community policing.
- Reveals trends in research methods used by HCI scholars for 40 years (1982-2022).
- Contributes historically and informs on the amount of works that have been done on trust in community policing overtime.

- Identifies unique terms for future HCI research.

On the overall, this study highlights community policing research trend between global south and global north. Over the years, studies covering Community Policing has dominantly concentrated on the global north regions. The implication of this is that there has been a very limited number of studies regarding this context in the global south. Therefore, researchers are encouraged to venture more and study the global south based on the research context to create a balance

A. Organization of Work

The remaining part of this study is organized as follows: Section 2 discussed studies related to this systematic review, while the method used in achieving the results are discussed in Section 3. The results of the review are stated in Section 4 and these results are further analyzed and discussed in Section 5. Other limitations are identified in Section 6, while Section 7 concludes the study.

II. RELATED WORKS

Trust is relevant for community policing strategies to thrive [6] . Hence, without trust, the stakeholders in community policing won't work to achieve its purpose. However, trust is very hard to detect by the human mind [18], and this is why many scholars have conducted reviews to understand trust in different perspective. In the perspective of community policing, Schilke et al. [9] defined trust as "the willingness of an entity (i.e., the trustor) to become vulnerable to another entity (i.e., the trustee)". Meanwhile, trust has three theoretical elements; vulnerability, positive prospects, and attitude [19] which must be integrated for it to be actualized. According to Aston et al. [20], established accessibility and communication between the police and the public are vital tools to achieving confidence for the police. People who have trust are more likely to report crimes and work with the police to uphold social norms and values [21]. In the present architecture of community policing, the police-citizen partnership faces numerous challenges because there is lack of trust [22]. Public safety can easily be addressed if there is trust [23]. Nagel et al. [24] systematically reviewed 12 papers on trust in police and concluded that transparency contributes to an improvement of trust for the police. To identify areas lacking research in social network trust, Sherchan et al. [25] conducted a comprehensive review through the field of social and computer science which led to the discovery of three aspects of trust that could help in policing. Fleet and Hine [26] conducted a sentiment analysis on 203 YouTube clips to identify the level of trust and the positivism of discourse on the use of facial recognition technology by the police. Their finding showed the acceptance of surveillance in community policing. To identify the effects of community-oriented policing on crime, Gill et al. [27] systematically reviewed 25 studies. They found that though citizens were satisfied with community-oriented policing, fear of crime in them were not reduced by the practice. Ike et al. [28] systematically reviewed 11 studies to enhance public trust for the Nigerian police. They

noted that one of the major community policing setbacks in Nigeria was lack of trust, and recommended a randomized trial intervention which must include citizen-policing relationship. To understand how force variables affect citizen's trust for the police, Akinlabi [29] conducted an analytic assessment through cross-sectional survey. They concluded that abuse of power and use of force on citizens contributes to the failures of community policing approach. Higginson et al. [30] systematically reviewed 37 studies to identify the evidence of effective policing interventions in developing countries. The most important out of the 7 identified themes was that citizens' participation will enhance policing interventions. From the foregoing, it is obvious that trust is a vital tool for community policing to thrive.

A. Research Design

The Preferred Reporting Items for Systematic review and Meta-Analysis (PRISMA) guideline [31], was followed in this study. The sample of the study are SIGCHI sponsored or co-sponsored conference papers and journal articles, which mentioned trust and community policing.

B. Criteria for selection

The study systematically reviewed scholarly works published in ACM Digital Library (dl.acm.org), Google Scholar (scholar.google.com) and Scopus (scopus.com) databases between January 1, 1982, and August 31, 2022. The choices of these three databases were informed by their wide scientific coverage [32], [33], [34] of HCI conference papers and journal article publications.

C. Search Strategy & Data Extraction

To get all conference papers and articles where community policing and trust were mentioned, an advanced search was conducted in each of the three databases with keywords 'community policing', 'community-policing' and 'trust', using the combinatorial and filtering operators 'AND' and 'OR' (more information can be found in table I). There were no limitations by title, abstracts and keywords, rather, 'ALL' option coding was used in the advanced search textboxes of the three databases. This was done to get all articles that mentioned community policing and trust in all parts of the documents, including references which could link to a missing document, thereby serving as first means of result validation and risk of bias assessment. If we had limited the search following some existing norms of limiting search by Title, Abstracts and Keywords (TAK), articles that mentioned community policing and trust in their title, abstracts and keywords only, would have been harvested; and we would have lost some valuable papers which discussed these two concepts in the introduction or other parts of the document. For instance, the paper 'Chasing Lions: Co-Designing Human-Drone Interaction in Sub-Saharan Africa', discussed trust for technology in community policing in their data analysis section, and would have missed out if we used TAK method. The only limitation to the inclusion of all parts of an article in

an advanced search is that some words in its reference section can pull up the article as relevant among document results, even when it is not. For instance, the article 'Civic Technology for Social Innovation', also resulted in our searches. Trust was mentioned in parts of the document, but community policing only appeared in the reference section. Though, this article was removed during our quality assessment, it directed us to three other documents that mentioned 'community policing' in its reference section, which we examined to reaffirm that our exclusions were accurate.

The selected citations in Scopus and Google Scholar were directly exported to excel in bits of 20 studies per file, while citations in ACM digital libraries were exported into BibTeX files and converted to excel using www.bibtex.com. The resultant excel files were merged into a single excel sheet. This resulted into many duplicates, which were sorted and deleted accordingly. To assess the risk of bias, two scholars with doctoral preparations carefully evaluated the articles for inclusion.

Included studies were those that needed to meet the below criteria:
1) Sponsored or co-sponsored by SIGCHI.
2) Mentioned trust and community policing or community-policing.

Excluded studies were those that:
1) Mentioned trust or community policing only in the reference section.
2) Did not relate trust within the scope of community policing.

D. Database Search Query

An advanced search of the three databases resulted in 20,286 documents. After filtering and sorting, a total of 74 articles were extracted and merged into an excel file for further quality assessment and criteria analysis which resulted in 16 studies. The advanced search procedures carried out in the three databases are detailed in the next section.

1) ACM Digital Library: A search in the ACM digital library for all the papers that mentioned community policing or community-policing and trust from 1st January 1982 till 31st August 2022 was done using the search query as shown in Table I. This was done in 'search items from: ACM full text collection' module, and the items entered into the 'Any-where' textbox was '"community policing" OR "community\-policing" AND Trust', with date set from January 1982 to August 2022 (Note: the 'OR' and 'AND' operators are case sensitive, and the quotation marks were used to generate exact phrases). The community-policing keyword was added to take care of some papers that spelt the concept with a hyphen between community and policing, as in 'community-policing'. It was coded with 'communitypolicing' because the backslash (\) is a special character in ACM digital library, which combines two words with a hyphen (-) without taking it as a minus sign (-). The above query resulted into 80 search results. Papers were screened to select those sponsored or co-sponsored by SIGCHI conference, and 29 papers were

extracted including the 3 books of proceedings which were removed, leaving us with 26 papers.

2) Google Scholar: A search in Google Scholar for all the papers that mentioned community policing or community-policing and trust from 1st January 1982 till 31st of August, 2022 was done using the search keywords as shown in Table I. This gave 17,900 search results. These results were filtered for ACM published papers. We had used SIGCHI filter but found out that the resulting documents were all published in ACM. Therefore, to broaden the search as not to miss any paper, we used ACM as a filter option, and that resulted into 30 documents.

3) Scopus Database: A search in Scopus database for all the papers that mentioned community policing or community-policing and trust from 1st January 1982 till 31st of August, 2022 was done using the advanced search query shown in Table I. This resulted into 2305 articles. These articles were screened to get papers from conference on Human factors in computing systems proceedings and ACM international conference proceeding series, and this resulted to 18 articles. We had to screen based on these two because of the peculiarity of Scopus database classifications.

E. Risk of Bias Assessment

To examine the correctness and comprehensiveness of the study results, two independent reviewers used Rayyan In-telligent Systematic Review Platform (RISRP) [35], which empowered the research team members to assess the quality of the studies. Two stages of the screening procedure were iteratively completed. The first stage was the screening of all abstracts, and the second stage involved additional screening by examining the entire articles, to assess the relevance of each, to the research objective. All these were done with the 'Blind On' collaborators' settings in RISRP, to eliminate risk of bias. The two independent reviewers disagreed at some points, as regards the exclusion or inclusion of some papers. These disagreements were resolved accordingly by unanimity. For instance, the article 'Empowered participation: Exploring how citizens use technology in local governance', by Erete et al. [36] ,caused a disagreement in the RISRP report. The bone of contention was that the article mentioned community-police and trust in the body of the text, five and three places re-spectively, but only had 'community policing' in its reference section. Since the paper was very close to the concepts being studied, the first reviewer opted for its inclusion, but the second reviewer insisted it should be kept aside. Clarity of purpose of search terms later informed a choice, as "community-police" was different from "community-policing", and a consensus was reached for the article to be excluded as for all biases to be removed.

F. Data Collection and analysis

Details of author(s), year of publication, place of study, pub-lisher, research type, methods used, duration, participants, and emphases related to the research objective were extracted from each of the included studies, which helped in classification of

TABLE I
SEARCH QUERY

Databases	Advanced Search Query	Preliminary output	First screening process (a)	Second Screening Process (b)
ACM Digital Library	[All: "community policing"] OR [[All: "community\-policing"] AND [All: trust]] AND [E-Publication Date: (01/01/1982 TO 31/08/2022)]	80	26	10
Google Scholar	"community policing" OR "community-policing" AND "trust"	17,900	30	2
Scopus Database	ALL ("community policing" OR "community-policing" AND trust)	2,305	18	4

This table shows the search queries used in the three databases. (a) Exclusion based on duplicate and CHI sponsorship. (b) Exclusion based on study relevance and defined criteria
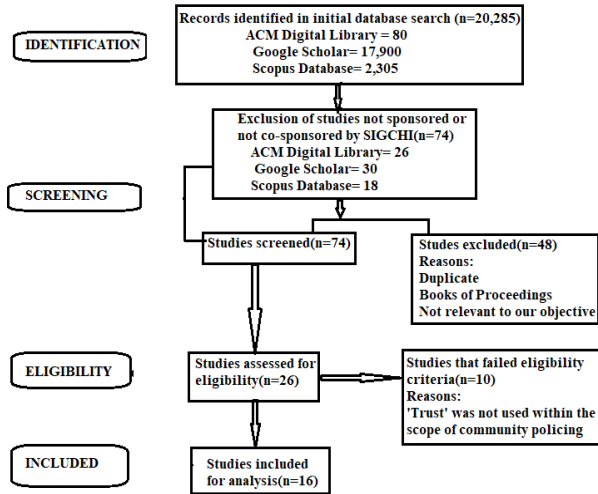

Fig. 1. The PRISMA diagram for the selection process.

Fig. 2. Percentage distribution of different research method .

trust in this study. Furthermore, two experienced researchers developed and coded the data from the reviewed studies. Cohen Kappa(k) was used to ascertain the inter-rater reliability (IRR) [37], [38]. This resulted to the value of k=0.60, which can be interpreted as a moderate agreement in the IRR check [39], [40]. Additionally, the codes were reviewed by two researchers whose critical discussions identified three themes that will improve trust in community policing perspective [37].

III. RESULTS AND FINDINGS

As illustrated in Table II, the sample size in the 16 selected studies ranged from 11 to 865 participants. However, only two of the studies [8], [41] gave details of the age range of participants which are between 18 and 60 years, 27 and 60 years respectively. The studies reviewed were published between 1982 and 2022. As seen in Figure 2, twelve of the studies (75%) used qualitative method (Participatory Design, Field Study, Interview, Dataset Generation and Qualitative Analysis), while four studies (25%) used mixed and alternative methods (Dataset generation and Quantitative Analysis (18.75%); Survey and Interview (6.25%)). In other words, qualitative method cut across all the studies. Furthermore, these studies were conducted in Global North: United States of America [1], [10], [42]– [43], the United Kingdom [8],
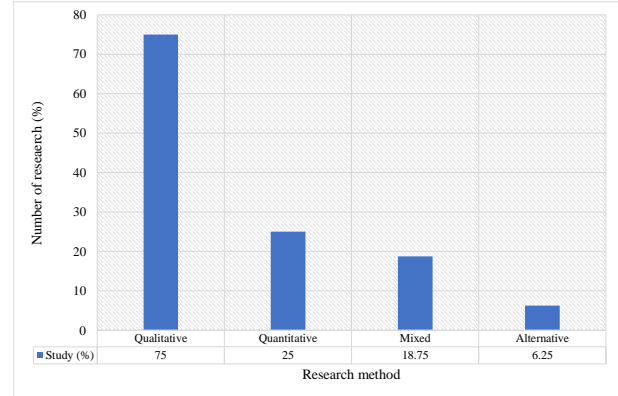
[44], [45], and Global South: South Korea [46], India [47] and Africa [41] and their study duration was between 1 day and 7 years. According to the analysis presented in Figure 3, two studies (12.5%) developed artifacts that can aid community policing, while 14 studies (87.5%) drew conclusions with design implications for future works. Also, while 68.75% of the studies mentioned how trust can be built for technology, for the police, and among community policing stakeholders; 18.75% studies identified the role of trust as challenging though imperative, and 12.5% studies used trust to explain other related concepts in their works. Thematic analysis was performed using inductive method [48].

IV. DISCUSSION

This study shows that community policing is still in its developing stage across the globe. In line with Corbett et al. [1], this study reveals that trust is a propelling factor to this developmental process. Also, there is significant growth in the study of trust in community policing, through which three classes of trust and three themes that can improve trust have been generated as presented in the next section.

A. Classification of Trust

Based on our systematic review, we found that the term TRUST is used as a vague synonym which might confuse readers of HCI publications about the exact targeted group. Consequently, we compared the use of the term in all selected

TABLE II
THEMATIC LAYOUT

Theme	Relevant Researches	Emphases
Evidence-based community policing	[1], [8], [10], [41], [42], [49]– [43], [46], [47]	Digital evidence will improve trust in community policing.
Frequent communication and relationship building	[1], [8], [10], [49]– [50], [43], [46], [47]	Communication between police and citizens will improve trust in community policing.
Privacy considerations in the design of technology	[1], [8], [10], [42]– [50], [43], [46], [47]	Technology with privacy protection will enhance availability of evidence, thereby improving trust in community policing.

This table shows the three themes that can improve trust, with emphasis on categories of trust in community policing.
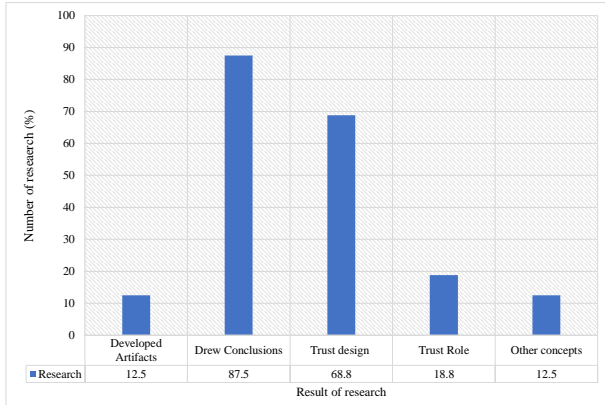

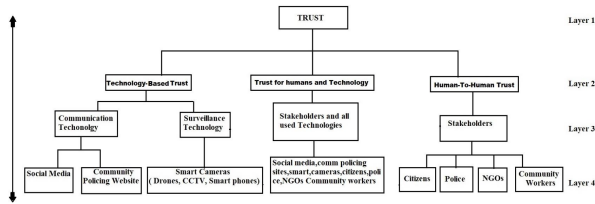Fig. 3. Research results as derived from other studies.

Fig. 4. Four layered Classification of Trust in Community policing.

publications to classify it into three. The proposed classification (see Figure 4) has four layers, showing precisions as it proceeds from the ambiguous term (Trust) to clearer terms (Technology-based Trust, Technology-to-Human Trust, Human-to-Human Trust), with their roots in layers 3 and 4, respectively.

1) Technology-based Trust (TbT): About 18.75% of the studies [41], [51], [46] identified trust in the context of technology as shown in layer 2 of Figure 4. Technology-based Trust is the eagerness of a stakeholder to be vulnerable to technologies used in community policing, believing that his usage objectives shall be met without his privacy compromised through surveillance or communication mechanisms. While the surveillance systems are technologies that capture static and moving objects, the communication mechanisms are technologies that enable communication and the sharing of information among stakeholders. At layer 4 in Figure 4, stakeholders use social media and community policing websites to communicate by sharing multimedia elements

among themselves and with the police. In the other hand, the smart cameras are used to record most of the information (crime scenes/evidence) shared through the communication mechanisms. When discussing about trust, which is guaranteed by technology to protect the privacy of stakeholders who gather and share information for community policing, TbT can be referred.

2) Human-to-Human Trust (HtHT): Half (50%) of the studies [1], [10], [42], [49], [52]– [44], [47] identified trust between humans, which is also at the layer 2. This trust develops through engagements and communications between two or more stakeholders exchanging services for a common community policing goal. These stakeholders are the citizens, NGO, police, and community workers detailed at layer 4. From our findings, the trust among them is the foundation of other trusts since the humans are the actors in community policing and the users of technologies. For example, if a citizen trusts a police officer, he will as well trust the smart camera or any other technology in the disposal of the trusted officer [53], [54], [55] and [56]. In contrast, a citizen can believe he is being recorded if the police officer is not trusted, even when the smart camera or recorder of the police officer is off [54]. HtHT can be referred when trust among or between two or more stakeholders is discussed.

3) Trust for both human and technology (TbHT): Less than half (31.25%) of the studies [8], [57] - [43], [45] identified trust in the context of both humans and technology. From our review, it is believed that man is behind technology, and as such, the two entities must function, having the concerns of the stakeholders in mind. Layer 4 depicts clarity with examples, which shows that citizens, police, NGOs, and community workers use social media, community policing websites and smart cameras. Consequently, trust for both humans and technology can be referred when any or all the technologies and any or all the stakeholders are referred.

B. Themes for Improving Trust

From the systematic review carried out in this study, three themes emerged that can improve trust. These themes are discussed below.

1) Evidence-based community policing: More than two-third (81.25%) of the studies were positive about evidence-based and data-driven community policing. The emphases were mostly on surveillance technologies like CCTV camera,

TABLE III
RESEARCH CATEGORIZATION

Usage of Term 'Trust'	Number of Publications	References
Technology-based	3	[41], [51], [46]
Human-to-Human	8	[1], [10], [42], [49] [52], [44], [47]
For Humans and Technology only	5	[8], [57], [50], [45]
Total	**16**	

This table shows the categorization of papers based on usage of the term 'trust' in community policing.

smart phone camera and drone, which generate evidence for the police to use in crime prosecutions. For instance, one of the studies [46] posited that "video evidence is critical in dealing with local issues". This shows that when there is evidence to back up claims in community policing activities, setting disagreements on actions or in-actions would not arise, thereby fostering trust among stakeholders. Also, surveillance technologies contribute to evidence-based strategies, which can lead to understanding crime problem, improving transparency, and building trust through police data initiative (PDI) [10]. For Corbett et al. [1], evidence is very vital in the primary stage of trust development. Providing digital evidence is beneficial, as discussed by Brush et al. [42] that "all our participant households except H8 were interested in having cameras that recorded videos outside their home". This shows the acceptability of evidence-based policing, through which trust can be improved. Significantly, there is total acceptance of the use of amazon ring, body-worn cameras, and mobile sensing technologies which are adopted to provide evidence for community policing [8].

2) Frequent communication and relationship building:
Majority of the studies (75%) were confident that frequently engaging and establishing a relationship with the citizens can improve and strengthen trust. An example is the study of Ming et al. [50] that mentioned "creating more opportunities for engagement between community members and safety organizations may allow for more trust and improved risk prevention and response". This relationship and communication can be physically established by stakeholders meeting from time to time to discuss needs, concerns, and challenges of community policing, or can be formed using information communications technologies (social media and communication platforms) [8], [58]. Police officers can choose to advise offenders, in a case where fines should be issued. Such advisory role improves relationships between the police and citizens, thereby improving trust [10]. Meanwhile, lack of active social media presence can reduce trust for the police [47]. This is because frequent communication improves trust, which can continually develop into a robust relationship if responsive [1]. To validate the above assertion, Erete et al. [49] added that communication is very important as it creates connections which establishes trust among stakeholders. This has led to the establishment of third-party reporting centers and victim-centered policing, which have improved trust drastically for pervasive community policing [44].

3) Privacy considerations in technological design: More than half of the studies (62.5%) while presenting privacy as concerns in the use of technologies for community policing, were optimistic that privacy protection will improve trust. Participants in the studies, who were positive about sharing data to the police and among community policing stakeholders, are concerned that their privacy may be compromised in the process. For example, Deeb-Swihart et al [43] posit that "best practices should be taken to ensure any solutions are privacy preserving and that the rights of the individuals are not infringed upon" [51]. For Isranf et al. [45], "these technologies can be designed to support an aggregate of anonymous view of data" [57]. For Ming et al. [34], privacy concerns are obvious in nearby environments as victims are afraid to report incidences using technological means, to avoid a repeat of such incidences [50]. This demonstrates lack of trust for technology, which can only be improved when privacy is considered during the design of community policing technologies. From our review, data shared through online media (Facebook, Twitter, WhatsApp etc) and surveillance data generated through smart cameras are the most sensitive in community policing [42]. When these shared data are not properly managed, privacy of individuals who are actors in community policing or are passive in the crime, may not be protected, thereby putting the individuals at risks. For instance, a social media user who willingly shares a footage of crime scene to the police or public, should be protected by technology. Such protection builds trust for the community policing activities [57]. Also, signing confidentiality agreement by stakeholders [48] provides security for sensitive evidence and builds trust for human and technology. Furthermore, if a camera field of view (FoV) in crime monitoring captures a scene not relative to the crime being covered, there is bound to be privacy concerns, and technology should be designed to take care of this to protect the users in community policing context.

V. LIMITATIONS

The major limitation of this systematic review arises from using only three databases and stringent keywords "community policing" OR community-policing which could exclude other related papers in other databases and papers that didn't use these exact phrases to refer to community policing respectively. Though, our search processes were comprehensive to accommodate all studies with the phrases within the three databases, there is possibility that a study which discussed community policing and trust missed out either because of

typo or character errors. Also, the generated themes were based on deductive coding, instead of the hybrid approach that would have given thoroughness in the thematic analysis. Furthermore, the classification is phrase-based, and as such, could cause potential bias.

VI. CONCLUSION

Through this systematic review, this study has been able to classify trust according to its different level of implication and further defined each in-line with community policing context. Also, the research has shown the characteristics of studies that discussed trust and community policing in the last 40 years. Three themes have been generated and discussed with emphasis on how trust can be improved. The most fundamental among the themes discussed is that technology-driven evidence gotten through surveillance systems (smart phone cameras, CCTV, drone etc.), can improve trust in community policing. Hence, the need for research to investigate the application of these technologies in community policing arises. While the identified themes can improve trust in community policing, classifying trust has created unique terms, which could be referred or compared in future by HCI researchers.

REFERENCES

[1] E. Corbett and C. A. Le Dantec, "Going the distance: Trust work for citizen participation," in *Proceedings of the 2018 CHI conference on human factors in computing systems*, pp. 1–13, 2018.

[2] M. Zhang, A. K. Bandara, B. Price, and B. Nuseibeh, "Finding & reviewing community policing apps in asia," in *Proceedings of the 2020 Symposium on Emerging Research from Asia and on Asian Contexts and Cultures*, pp. 45–48, 2020.

[3] A. E. Carter, M. Hoy, and B. B. DeSimone, "Social media engagement tactics in us community policing: Potential privacy and security concerns," *The Police Journal*, vol. 94, no. 4, pp. 556–571, 2021.

[4] J. G. Carter and B. Fox, "Community policing and intelligence-led policing: An examination of convergent or discriminant validity," *Policing: An International Journal*, vol. 42, no. 1, pp. 43–58, 2019.

[5] A. Adolphe, L. Khatib, C. van Golde, S. M. Gainsbury, and A. Blaszczynski, "Crime and gambling disorders: A systematic review," *Journal of Gambling Studies*, vol. 35, no. 2, pp. 395–414, 2019.

[6] S. L. Erete, "Crime prevention technologies in low-income communities," *XRDS: Crossroads, The ACM Magazine for Students*, vol. 19, no. 2, pp. 24–26, 2012.

[7] J. C. Chew and J. Whiteside, *Proceedings of the SIGCHI conference on human factors in computing systems*. ACM, 1990.

[8] M. Zhang, A. K. Bandara, B. Price, G. Pike, Z. Walkington, C. Elphick, L. Frumkin, R. Philpot, M. Levine, A. Stuart, *et al.*, "Designing technologies for community policing," in *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*, pp. 1–9, 2020.

[9] O. Schilke, M. Reimann, and K. S. Cook, "Trust in social relations," *Annual Review of Sociology*, vol. 47, pp. 239–259, 2021.

[10] J. H. Anajemba, Y. Tang, C. Iwendi, A. Ohwoekevwo, G. Srivastava, and O. Jo, "Realizing efficient security and privacy in iot networks," *Sensors*, vol. 20, no. 9, p. 2609, 2020.

[11] C. Elphick, R. Philpot, M. Zhang, A. Stuart, Z. Walkington, L. A. Frumkin, G. Pike, K. Gardner, M. Lacey, M. Levine, *et al.*, "Building trust in digital policing: a scoping review of community policing apps," *Police Practice and Research*, vol. 22, no. 5, pp. 1469–1491, 2021.

[12] L. Schmidthuber, A. Ingrams, and D. Hilgers, "Government openness and public trust: The mediating role of democratic capacity," *Public Administration Review*, vol. 81, no. 1, pp. 91–109, 2021.

[13] M. J. Nanes, "Policing in divided societies: Officer inclusion, citizen cooperation, and crime prevention," *Conflict Management and Peace Science*, vol. 37, no. 5, pp. 580–604, 2020.

[14] J. Dickinson, J. Arthur, M. Shiparski, A. Bianca, A. Gonzalez, and S. Erete, "Amplifying community-led violence prevention as a counter to structural oppression," *Proceedings of the ACM on Human-Computer Interaction*, vol. 5, no. CSCW1, pp. 1–28, 2021.

[15] A. Morshed, A. R. M. Forkan, P.-W. Tsai, P. P. Jayaraman, T. Sellis, D. Georgakopoulos, I. Moser, and R. Ranjan, "Viscrimepredict: a system for crime trajectory prediction and visualisation from heterogeneous data sources," in *Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing*, pp. 1099–1106, 2019.

[16] C. Harrington, S. Erete, and A. M. Piper, "Deconstructing community-based collaborative design: Towards more equitable participatory design engagements," *Proceedings of the ACM on Human-Computer Interaction*, vol. 3, no. CSCW, pp. 1–25, 2019.

[17] A. Farrell, M. Dank, I. de Vries, M. Kafafian, A. Hughes, and S. Lockwood, "Failing victims? challenges of the police response to human trafficking," *Criminology & Public Policy*, vol. 18, no. 3, pp. 649–673, 2019.

[18] P. Beatty, I. Reay, S. Dick, and J. Miller, "Consumer trust in e-commerce web sites: A meta-study," *ACM Computing Surveys (CSUR)*, vol. 43, no. 3, pp. 1–46, 2011.

[19] O. Vereschak, G. Bailly, and B. Caramiaux, "How to evaluate trust in ai-assisted decision making? a survey of empirical methodologies," *Proceedings of the ACM on Human-Computer Interaction*, vol. 5, no. CSCW2, pp. 1–39, 2021.

[20] E. V. Aston, M. O'Neill, Y. Hail, and A. Wooff, "Information sharing in community policing in europe: Building public confidence," *European Journal of Criminology*, p. 14773708211037902, 2021.

[21] D. S. Abubakar, Z. Othman, and J. Mustaffa, "Selected demographic variables and community policing participation among citizens in nigeria: a pilot study," *Asian Journal of Multidisciplinary Studies*, vol. 5, no. 4, pp. 99–105, 2017.

[22] D. H. Schanzer, C. Kurzman, J. Toliver, and E. Miller, *The challenge and promise of using community policing strategies to prevent violent extremism: A call for community partnerships with law enforcement to enhance public safety*. Triangle Center on Terrorism and Homeland Security Durham, 2016.

[23] C. Chouhan, C. M. LaPerriere, Z. Aljallad, J. Kropczynski, H. Lipford, and P. J. Wisniewski, "Co-designing for community oversight: Helping people make privacy and security decisions together," *Proceedings of the ACM on Human-Computer Interaction*, vol. 3, no. CSCW, pp. 1–31, 2019.

[24] C. Nägel and A. E. Nivette, "Unexpected events during survey design and trust in the police: A systematic review," *Journal of experimental criminology*, pp. 1–27, 2022.

[25] W. Sherchan, S. Nepal, and C. Paris, "A survey of trust in social networks," *ACM Computing Surveys (CSUR)*, vol. 45, no. 4, pp. 1–33, 2013.

[26] R. W. Fleet and K. A. Hine, "Surprise, anticipation, sadness, and fear: A sentiment analysis of social media's portrayal of police use of facial recognition technology," *Policing: A Journal of Policy and Practice*, 2022.

[27] C. Gill, D. Weisburd, C. W. Telep, Z. Vitter, and T. Bennett, "Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: A systematic review," *Journal of experimental criminology*, vol. 10, pp. 399–428, 2014.

[28] T. J. Ike, D. Singh, D. E. Jidong, L. M. Ike, and E. E. Ayobi, "Public perspectives of interventions aimed at building confidence in the nigerian police: a systematic review," *Journal of Policing, Intelligence and Counter Terrorism*, vol. 17, no. 1, pp. 95–116, 2022.

[29] O. M. Akinlabi, "Citizens' accounts of police use of force and its implication for trust in the police," *Journal of crime and justice*, vol. 43, no. 2, pp. 145–160, 2020.

[30] H. Tao, J. M. Zain, S. B. Band, B. Sundaravadivazhagan, A. Mohamed, H. A. Marhoon, O. O. Ogbonnia, and P. Young, "Sdn-assisted technique for traffic control and information execution in vehicular adhoc networks," *Computers and Electrical Engineering*, vol. 102, p. 108108, 2022.

[31] N. Panic, E. Leoncini, G. De Belvis, W. Ricciardi, and S. Boccia, "Evaluation of the endorsement of the preferred reporting items for systematic reviews and meta-analysis (prisma) statement on the quality of published systematic review and meta-analyses," *PloS one*, vol. 8, no. 12, p. e83138, 2013.

[32] A.-W. Harzing and S. Alakangas, "Google scholar, scopus and the web of science: a longitudinal and cross-disciplinary comparison," *Scientometrics*, vol. 106, pp. 787–804, 2016.

[33] A. Martín-Martín, E. Orduna-Malea, M. Thelwall, and E. D. López-Cózar, "Google scholar, web of science, and scopus: A systematic comparison of citations in 252 subject categories," *Journal of informetrics*, vol. 12, no. 4, pp. 1160–1177, 2018.

[34] G. Halevi, H. Moed, and J. Bar-Ilan, "Suitability of google scholar as a source of scientific information and as a source of data for scientific evaluation—review of the literature," *Journal of informetrics*, vol. 11, no. 3, pp. 823–834, 2017.

[35] M. Ouzzani, H. Hammady, Z. Fedorowicz, and A. Elmagarmid, "Rayyan—a web and mobile app for systematic reviews," *Systematic reviews*, vol. 5, pp. 1–10, 2016.

[36] S. Erete and J. O. Burrell, "Empowered participation: How citizens use technology in local governance," in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, pp. 2307–2319, 2017.

[37] N. McDonald, S. Schoenebeck, and A. Forte, "Reliability and inter-rater reliability in qualitative research: Norms and guidelines for cscw and hci practice," *Proceedings of the ACM on human-computer interaction*, vol. 3, no. CSCW, pp. 1–23, 2019.

[38] J. Paavilainen, H. Korhonen, K. Alha, J. Stenros, E. Koskinen, and F. Mayra, "The pokémon go experience: A location-based augmented reality mobile game goes mainstream," in *Proceedings of the 2017 CHI conference on human factors in computing systems*, pp. 2493–2498, 2017.

[39] J. Wang, Y. Yang, and B. Xia, "A simplified cohen's kappa for use in binary classification data annotation tasks," *IEEE Access*, vol. 7, pp. 164386–164397, 2019.

[40] G. Rau and Y.-S. Shih, "Evaluation of cohen's kappa and other measures of inter-rater agreement for genre analysis and other nominal data," *Journal of english for academic purposes*, vol. 53, p. 101026, 2021.

[41] A. Wojciechowska, F. Hamidi, A. Lucero, and J. R. Cauchard, "Chasing lions: Co-designing human-drone interaction in sub-saharan africa," *arXiv preprint arXiv:2005.02022*, 2020.

[42] A. B. Brush, J. Jung, R. Mahajan, and F. Martinez, "Digital neighborhood watch: Investigating the sharing of camera data amongst neighbors," in *Proceedings of the 2013 conference on Computer supported cooperative work*, pp. 693–700, 2013.

[43] Q. Wu, L. K. Williams, E. Simpson, and B. Semaan, "Conversations about crime: Re-enforcing and fighting against platformed racism on reddit," *Proceedings of the ACM on Human-Computer Interaction*, vol. 6, no. CSCW1, pp. 1–38, 2022.

[44] C. Gatehouse, M. Wood, J. Briggs, J. Pickles, and S. Lawson, "Troubling vulnerability: Designing with lgbt young people's ambivalence towards hate crime reporting," in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, pp. 1–13, 2018.

[45] J. H. Anajemba, T. Yue, C. Iwendi, P. Chatterjee, D. Ngabo, and W. S. Alnumay, "A secure multiuser privacy technique for wireless iot networks using stochastic privacy optimization," *IEEE Internet of Things Journal*, vol. 9, no. 4, pp. 2566–2577, 2021.

[46] S. Park, S. Kwon, and U. Lee, "Campuswatch: Exploring communitysourced patrolling with pervasive mobile technology," *Proceedings of the ACM on Human-Computer Interaction*, vol. 2, no. CSCW, pp. 1–25, 2018.

[47] N. Sachdeva and P. Kumaraguru, "Call for service: Characterizing and modeling police response to serviceable requests on facebook," in *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, pp. 336–352, 2017.

[48] J. Fereday and E. Muir-Cochrane, "Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development," *International journal of qualitative methods*, vol. 5, no. 1, pp. 80–92, 2006.

[49] J. Deeb-Swihart, A. Endert, and A. Bruckman, "Understanding law enforcement strategies and needs for combating human trafficking," in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, pp. 1–14, 2019.

[50] S. Ming, R. D. Mayfield, H. Cheng, K.-R. Wang, and Y. Huang, "Examining interactions between community members and university safety organizations through community-sourced risk systems," *Proceedings of the ACM on Human-Computer Interaction*, vol. 5, no. CSCW1, pp. 1–23, 2021.

[51] J. Deeb-Swihart, A. Endert, and A. Bruckman, "Understanding law enforcement strategies and needs for combating human trafficking," in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, pp. 1–14, 2019.

[52] S. Venkatagiri, A. Gautam, and K. Luther, "Crowdsolve: Managing tensions in an expert-led crowdsourced investigation," *Proceedings of the ACM on Human-Computer Interaction*, vol. 5, no. CSCW1, pp. 1–30, 2021.

[53] B. Bradford, J. A. Yesberg, J. Jackson, and P. Dawson, "Live facial recognition: Trust and legitimacy as predictors of public support for police use of new technology," *The British Journal of Criminology*, vol. 60, no. 6, pp. 1502–1522, 2020.

[54] N. Todak, L. Leban, and L. James, "Citizen attitudes towards the public release of police body-worn camera video footage," *Police practice and research*, vol. 22, no. 7, pp. 1760–1776, 2021.

[55] E. A. Mantey, C. Zhou, J. H. Anajemba, I. M. Okpalaoguchi, and O. D.-M. Chiadika, "Blockchain-secured recommender system for special need patients using deep learning," *Frontiers in Public Health*, vol. 9, p. 737269, 2021.

[56] E. A. Mantey, C. Zhou, J. H. Anajemba, Y. Hamid, and J. Kingsley, "Blockchain-enabled technique for privacy-preserved medical recommender system," *IEEE Access*, 2023.

[57] A. Israni, S. Erete, and C. L. Smith, "Snitches, trolls, and social norms: Unpacking perceptions of social media use for crime prevention," in *Proceedings of the 2017 ACM conference on computer supported cooperative work and social computing*, pp. 1193–1209, 2017.

[58] S. Lewis and D. A. Lewis, "Examining technology that supports community policing," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 1371–1380, 2012.