

# Community Organization-Based Literacy Empowerment for Women to Support Acceleration of Indonesian Digital Civilization Index: Digital Literacy Training for Perempuan Urang Banten (PUB) Association at Lampung Province

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## ABSTRACT

Indonesia has attained the bottommost rank in the global ranking of the World Digital Civility Index (DCI). The state renders female administrators and members of community-based organizations susceptible to deceitful machinations and exposure to impolite behavior within the realm of digital media, unless they possess the requisite competencies in digital literacy. This community service endeavors to impart digital literacy skills, particularly to female administrators and members of Perkumpulan Urang Banten (PUB) at Lampung Province. The purpose of this is to enable female administrators and PUB Lampung to derive the utmost benefit from media utilization, and to exercise discernment and discretion in selecting information. During the community service, most of participants have experienced significant improvements in their knowledge and practical skills. The program has equipped them with understanding of various hoaxes and online surfing ethics, enabling them to navigate the digital landscape with confidence. Furthermore, they have acquired skills in becoming responsible digital citizenship and protect themselves in the digital world. The community service has truly been transformative, empowering participants with the necessary knowledge and practical skills to thrive in an increasingly digital society. By doing so, thereby aiding the advancement of the DCI for the Indonesian populace.

## KEYWORDS

Digital civilization index;  
Digital literacy;  
Community-based organization;  
Women empowerment



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## 1. Introduction

In February 2021, the Indonesian people were shocked by the results of the Digital Civility Index (DCI) released by Microsoft Corp. in the framework of Safer Internet Day [1]. In its report, DCI, which shows the level of civility of internet users or netizens throughout 2020, places Indonesia, more precisely its internet citizens (netizens), in the number two position of the final ranking. This is a worrying result because it shows that the level of civilization (civility) of Indonesian netizens is very low according to this version [2]. This conclusion was reached by Microsoft Corp after interviewing 1600 respondents in Indonesia. In general, DCI displays things that are commonly found in online life. However, the findings that are also astonishing are the minus 16-point decline in adults in Indonesia where almost 5 out of 10 people admit to being involved in bullying and 19% of respondents admit to being targets.

This condition is considered to have contributed to the decline in the level of civility in Indonesia, given the number of internet users in Indonesia which has reached more than 202 million people or more than 73 percent of the total population. Microsoft explained that the biggest risks for Indonesian netizens were hoaxes and fraud, which increased by 13%, hate speech increased by 5%, but discrimination decreased by 2%. It was also found that Indonesian netizens stated that there were 21 types of online threats they faced, which were divided into four categories: behavioral, sexual, reputational, and

personal/disturbing. Indonesia's low DCI clearly implies an emergency condition of Indonesian literacy that cannot be ignored anymore [3].

One of the netizens who is vulnerable to this digital impoliteness is a woman [4]. In addition, based on the results of Google's research in mid-2019, it shows that although Internet access has become wider and more affordable, there is still a gap in digital access between men and women [5]. Out of 175 Indonesians who have internet access, the proportion of women who use it is still less than men, due to limited access to the internet; women's inability to find, create or share content online; strong privacy; and the insecurities women feel when they are in the digital space [6]. Low literacy, especially digital literacy, will make women tend to spread fake news [7][8]–[13]. The inability to distinguish which news is fake and which is intellectual will also make women more vulnerable to spreading hoaxes [14]. What's more, the lack of digital literacy is vulnerable to making it a perpetrator of internet ethics violations [15]–[17][18]. This condition is clearly a controversy with Beijing's declaration emphasizing that women who are empowered in the ICT field will increase women's contribution to the family economy [19][1], [20]–[23]. This is where digital literacy is needed that is holistic, comprehensive, especially the aspect of self-motivation from women to learn and master ICT for the benefit of themselves and their families and their environment [24]. So that she is encouraged to become a literacy mover, starting from himself to empowering herself for her family and society [25][26]–[29]. This means that women need to be equipped with digital literacy skills, especially since women are part of Indonesia's very large economic movers and contributors and the influence of women's literacy skills on society can be very significant, considering that women also play many roles in the life of society and the state [30][31], [32].

Women who can also become literacy activators are female administrators and members of the Perkumpulan Banten Urang (PUB) of Lampung Province. PUB is a community organization that involves women so that in the future they can maintain, preserve, and improve the welfare of Urang Banten. Women who share the spirit of building the Banten community in all aspects of life with the Kasepuhan people and Banten figures everywhere, especially in Lampung province, need to be equipped with good digital literacy especially PUB Lampung has never received any digital literacy training related to the prevention of hoax news and politeness in digital media. Based on this, there is no doubt that this dedication is felt to be very important to invite female administrators and members of the Lampung PUB to increase their digital literacy in the context of preventing hoax news and the use of information and communication technology infrastructure in a polite manner in to support the acceleration of Indonesia's digital civilization index.

## 2. Method

The Community service activities on “Community Organization-Based Literacy Empowerment for Women to Support Acceleration of Indonesian Digital Civilization Index: Digital Literacy Training for Perempuan Urang Banten (PUB) Association at Lampung Province” were carried out through several methods, namely:

- Interactive dialogue to explore all the data in writing down the potential of the participants through Focus Group Discussion (FGD).
- Measuring the participants' digital literacy level regarding hoaxes and netiquette by filling out a questionnaire at the end of the FGD event.
- Providing education and training through Training of Trainers (TOT) activities with the following materials:
  - ❖ The Potential of Banten Women in The Constellation of Indonesian Civilization
  - ❖ The Urgency of The Role of Communication Information Technology In The Life Of Banten Women
  - ❖ Being Brilliant Banten Women in Preventing Hoaxes
  - ❖ Towards Polite Banten Women with Internet Media (Netiquette)
- Monitoring. Random observation activities by administrators and members of PUB Lampung to monitor the impact of this training process. Monitoring will be carried out twice, namely

(1) a few days (maximum in two weeks) after the activity to find out the follow-up actions taken by the target audience for the community service activities. (2) monitor follow-up actions from the first point, which is in the third and fourth weeks after the community service activities. This monitoring is carried out to find out whether the behavior that has arisen as a response to community service activities has been carried out repeatedly, and the hope is that after six weeks, this will become routine and stable behavior in a sustainable manner.

Referring to the description of the activity method above, it is necessary to explain in detail the work procedures carried out in this community service:

- Interactive dialogue through FGD as well as distribution of questionnaires to analyze participants' digital literacy level regarding hoaxes and netiquette. Questionnaires were distributed at the end of the FGD.
- Pre-test participants' digital literacy regarding hoaxes and netiquette during the TOT.
- Education and training for women administrators and members of PUB Lampung.
- Post-test related to all the material in the TOT.
- The first monitoring, visiting the target audience to conduct observations and interviews related to the follow-up of counseling (maximum 2 weeks after counseling).
- Second monitoring, through the same activities as the previous monitoring (third and fourth week)
- Prepare reports on monitoring results.

### 3. Results and Discussion

#### 3.1 Results

The implementation of community service within the institution of Women Empowerment for Literacy, based on Community Organization, in support of the Acceleration of the Indonesian Digital Civility Index: Digital Literacy Training for Women in the Association of Urang Banten (PUB) in Lampung Province, was carried out in two phases: the Focus Group Discussion (FGD) and digital literacy training is shown in Figure 1. The figure shows that based on the evaluation conducted by the team, it was found that the participants were highly enthusiastic in participating in the training activities. Their enthusiasm was evident through their active engagement in discussions and question-and-answer sessions during each phase.



**Fig. 1.** The Community Service Teams Presented Their Training Materials

The FGD took place on September 22-23, 2021, at the Assembly Hall of the Association of Urang Banten (PUB) in Lampung Province, located at Jl. Pendidikan, Sumber Rejo, Kec. Kemiling, Kota Bandar

Lampung, Lampung 35152, involving the female members of PUB who were associated with the project. The FGD served as a meeting between the community service team and all the participants to facilitate interactive dialogues in order to gather information about the participants' knowledge of the Indonesian Digital Civility Index and collect initial data on their digital literacy skills, particularly regarding the issues of hoaxes and internet ethics. The FGD was attended by female executives of PUB in Lampung Province.

During the event, several core issues were identified as urgent for the implementation of digital literacy training, including:

- The lack of comprehensive understanding regarding the importance of women's role as drivers of digital literacy within the family in the millennium era, along with the associated challenges.
- Inadequate knowledge of digital literacy concerning technology, communication, and ethical practices.
- Limited knowledge of hoaxes as cybercrimes.
- The absence of awareness regarding ethical behaviour while using social media.



Fig. 2. Prof. Dr. Lusmeilia Afriani Presented Her Training Materials

Table 1. Activity Process Matrix.

Matrix			
	Indicator	Success Measurement	Pre & Post Test
Criteria	The increase in participants' knowledge about the potential of women in Banten within the context of Indonesian civilization.	Evaluated through participant worksheets by the team (pre-test and post-test)	Pre: Very Low, Process: Good, Post: Excellent.
	The increase in participants' knowledge about information and communication technology in modern life, as well as its urgency in the lives of women in Banten.	Evaluated through participant worksheets by the team (pre-test and post-test).	Pre: Low, Process: Good, Post: Very Good.
	The increase in digital literacy among women in Banten in countering hoaxes.	Evaluated through participant worksheets by the team (pre-test and post-test).	Pre: Low, Process: Good, Post: Very Good.
	The improvement in participants' digital literacy through the introduction of netiquette (internet ethics).	Through observation sheets conducted by the team.	Pre: Very Low, Process: Good, Post: Excellent.

The digital literacy training itself was conducted on September 24, 2021, with the participation of 31 individuals, including female executives and members of PUB in Lampung Province, shown in Figure 2. The figure shows that the post-training results showed an improvement in the participants' knowledge, understanding, and skills related to the concept of digital literacy, as well as its practical application through hoax prevention and optimizing netiquette in their daily lives, as relevant efforts to enhance the Indonesian Digital Civility Index. Moreover, the increased digital literacy skills of the female executives and members of PUB in Lampung Province further equip them as agents of literacy to build a highly skilled human resource base within the Urang Banten community and, of course, in Lampung Province as shown in Table 1.

Based on the table 1, it is evident that the evaluation results of the participants' pre-test scores for all criteria and material indicators were low. However, these results can be improved through effective training processes, which ultimately led to excellent post-test evaluations for the participants. Furthermore, both the pre-test and post-test evaluations demonstrate a significant change after the implementation of a well-conducted training program that accurately targeted the participants' needs and provided adequate resource support. The complete results of the pre-test evaluation are presented in the table 2.

**Table 2.** Percentage of Pre-Test Evaluation Scores of Training Participants

No	Value Range	Number of Participants	Percentage of Score	Achievement Crite
1	40 – 50	22 persons	71%	Very Low
2	51 – 60	7 persons	23%	Low
3	61 – 70	2 persons	6%	Fair
4	71 – 80	-	-	Good
5	81 – 100	-	-	Excellent
<b>Total</b>		31 persons	100 %	

Analysing the table 2, it depicts that the results of the pre-test evaluation are far from the ideal expectations for women as literacy advocates in mastering the four tested material indicator criteria. The majority of participants (71% or 22 individuals) obtained a score categorized as very low (SR), while a portion (23% or 7 individuals) achieved a low (R) score, and only 2 individuals (6%) obtained a fair (C) score. The results also indicate that none of the participants achieved a good (B) or excellent (BS) score. This condition suggests that the participants still lack knowledge, understanding, and skills related to the training material, with a majority falling into the very low and low categories, while only a small portion reached the fair category.

The post-test evaluation results, conducted after the completion of the training program, serve as a basis to measure the level of success shown table 3. The extent of the difference between the pre-test and post-test results can indicate the success of the digital literacy training for women in the Association of Urang Banten (PUB) in Lampung Province. It also determines the success of the training process that has been implemented. The post-test evaluation results are presented in the following table.

**Table 3.** Percentage of Post-Test Evaluation Scores of Training Participants

No	Value Range	Number of Participants	Percentage of Score	Achievement Crite
1	40 – 50	-	-	Very Low
2	51 – 60	-	-	Low
3	61 – 70	5 persons	16 %	Fair
4	71 – 80	11 persons	35 %	Good
5	81 – 100	15 persons	48 %	Excellent
<b>Total</b>		31 persons	100 %	

Based on the post-test evaluation results presented in the table above, it indicates that the participants' post-test evaluations are highly satisfactory. The difference between the pre-test and post-test results demonstrates significant progress among the participants in terms of knowledge, understanding, and skills in both tested material indicator criteria. The post-test evaluation informs that, after undergoing effective training, there were no participants who scored in the very low (SR) and low (R) categories. Participants who achieved a fair (C) score accounted for only 16% or 5 individuals, while those who achieved a good (B) score were 35% or 11 individuals, and those who achieved an excellent (BS) score were 48% or 15 individuals. With these results, it can be stated that after participating in the training process, the majority of participants have acquired good knowledge, understanding, and skills related to the presented training material. Therefore, it can be concluded that the digital literacy training for women in the Association of Urang Banten (PUB) in Lampung Province has successfully improved the participants' abilities and understanding of digital literacy concepts and practices, including hoax prevention and optimizing netiquette in their daily lives. This effort is relevant to enhancing the Indonesian Digital Civility Index

### 3.2 Discussion

This service activity was carried out at the Assembly Hall of the Association of Urang Banten (PUB) in Lampung Province, located at Jalan Jl. Education, Sumber Rejo, Kec. Kemiling, Kota Bandar Lampung, Lampung 35152. The activity began with an introductory presentation by Budi Harjo, S.Sos, M.IP, highlighting the potential of women in Banten within the global context of Indonesian civilization and the efforts to accelerate the Indonesian Digital The Civility Index is shown in Figure 4. The figure shows that the next topic was delivered by Prof. Dr. Ir. Lusmelia Afriani, D.E.A, who discussed digital literacy, particularly emphasizing the urgency of Information and Communication Technology (ICT) in the lives of women in Banten. dr. Ida Nurhaida, M.Si, then continued by presenting the concept of the importance of intelligence for women as literacy advocates in countering hoaxes as cybercrimes. This topic aimed to provide participants with basic knowledge about the concept of hoaxes and how to identify them. The session concluded with a presentation on internet ethics (netiquette) titled "Towards Polite Banten Women in Internet Media (Netiquette)" by Andi Windah, S.I.Kom., MComn&MediaSt and Dr. Nina Yudha Aryanti



Fig. 3. Documentation of Community Service Activity

Throughout the activity, from the first session to the last, the team observed the participants' enthusiasm in engaging with the program. They were eager to participate and expand their knowledge, especially after realizing the significant role they play as mothers in fostering digital literacy awareness within their families.

During the question-and-answer and discussion sessions, the team received more than five questions that thoroughly addressed the process of countering hoaxes, including accessing the internet in a healthy and safe manner. Through interviews, several participants expressed the following insights:

1. Participants lacked comprehensive knowledge and understanding of their potential in building Indonesian civilization, particularly in relation to the Indonesian Digital Civility Index.

2. Participants were not aware of their strategic role in educating future generations about digital literacy by enhancing their capacities and strengthening their positions as trusted sources of information within their communities, aligning with the advancements of the times and societal needs.

3. While participants used internet technology and social media, limited knowledge hindered them from engaging in healthy and safe online behaviours, sometimes even putting themselves at risk by sharing personal information on their social media accounts.

4. Participants lacked knowledge on how to filter news in the online world, making them susceptible to spreading hoax news on social media or other digital platforms.

5. The absence of assistance or resources to further explore technological developments, particularly in the context of hoaxes during the COVID-19 pandemic, led participants to rely on self-learning. This situation increased the risk of being exposed to unhealthy and unsafe online environments.

6. Another difficulty stemmed from the participants' lack of digital literacy regarding ethical internet usage. They struggled to implement appropriate behaviours aligned with offline norms while being online. This indicates that female executives and members of PUB in Lampung Province require support to bridge their knowledge and understanding gap.

On the other hand, the participants demonstrated a high motivation to learn something new. This was evident through their enthusiasm in asking questions and actively participating until the end of the program. Overall, the activity can be considered fairly successful. In other words, the efforts to improve the Indonesian Digital Civility Index through digital literacy training for women in PUB Lampung were on target.

Based on the conducted monitoring, several benefits were observed among the participants, including:

1. Increased knowledge and understanding of the importance of women's roles as advocates of digital literacy. Participants showed progress in adopting technology and accessing the online world. Through the knowledge and direct experiences gained from this activity, participants were able to develop their competencies as literacy advocates and become trusted sources of information to counter hoaxes within their families and actively contribute to society.

2. A growing sense of responsibility and positive attitudes in using technology and information. Participants expressed motivation to filter the information they receive through social media and the internet in their daily lives.

3. Increased awareness of ethical internet behaviours, leading to a reduction in negative impacts resulting from the misuse of information technology. Participants acknowledged that they were often adaptive to technological advancements without considering the legal aspects. This became a challenge when they lacked understanding and failed to keep up with technological developments alongside knowledge and comprehension of internet ethics, widening the technological gap. Consequently, participants lacked the knowledge required to prevent unethical internet behaviours resulting from digital literacy.

4. Participants gained knowledge about websites and applications that can help them access healthy and safe information.

Through this activity, participants expressed growing confidence in using technology and readiness to become literacy advocates, particularly in filtering information, especially hoaxes, to avoid the negative impacts of misinformation. Overall, this outreach program had a positive impact and provided benefits that contributed positively to the acceleration of the Indonesian Digital Civility Index.

#### 4. Conclusion

After conducting this training, several conclusions can be drawn as follows participants' mastery of digital literacy training for women as literacy advocates has shown a significant improvement compared to their initial low scores. Prior to the training, only 48% of participants achieved the highest score range of 81-100, indicating excellent performance. Meanwhile, the percentage for the range of 61-70 decreased to 16% or less. However, there was an overall improvement across all score ranges. Participants demonstrated their understanding of the concepts by applying them in interpreting the role of

communication technology within their families, particularly in countering hoaxes, utilizing anti-hoax tools, and practicing ethical behaviours in internet usage that is healthy and safe. experience for teachers in implementing fun and engaging technology-based learning. The interactive learning environment encourages enthusiasm and motivation in students and provides a more relaxed and enjoyable learning environment.

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### Author Contribution

The contributions of the five authors in the community service activity titled "Community Organization-Based Literacy Empowerment for Women to Support Acceleration of Indonesian Digital Civilization Index: Digital Literacy Training for *Perempuan Urang Banten* (PUB) Association at Lampung Province" are as follows:

1. The first author contributed in directing and designing the main concept of the service proposal, guiding the activity design. The first author created questionnaire instruments and prepared training materials, including conducting monitoring and evaluation and compiled the service report.
2. The second author, as the activity coordinator, participated in drafting the proposal. The second author also aided in creating the training design, preparing training materials, and conducting monitoring and evaluation. Additionally, the second author supported in compiling the print media report.
3. The third author, as the activity coordinator, contributed in creating questionnaire instruments as well as preparing training materials. The third author also added facilitated monitoring and evaluation and drafting the scientific article.
4. The fourth author, as the activity coordinator, contributed in coordinating with partners and preparing technical equipment for training activities. The fourth author also ministered monitoring and evaluation and designing and printing certificates as well as compiling articles for a national seminar.
5. The fifth author, as the report administrator, contributed in compiling the movement report and guaranteeing that all data and comes about of the movement were well-documented. The fifth author taken an interest in gathering information and data from the educators and members for the report composing

The five authors collaborated to ensure the smoothness and success of this community service activity. From planning to implementation, and until report writing, each author made a significant contribution to this activity. With good cooperation and maximum contribution from the five authors, this community service activity can be carried out successfully and beneficial for the participants and the community.

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### Conflict of Interest

The authors declare no conflict of interest.

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