

Examining Gender Differences in Engineering Students' Reflections on Combating Systemic Racism

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Abstract

Background: Systemic racism is deeply embedded in various institutions and societal structures, perpetuating inequalities and shaping interpersonal interactions. Engineers play a crucial role in addressing and dismantling these systemic issues as they influence shaping the built environment and technological systems that impact diverse communities. Therefore, integrating social justice principles and awareness of systemic inequities into the engineering curriculum is crucial for preparing future engineers to create inclusive and equitable solutions. By examining how engineering students reflect on their roles in combating systemic racism, we can gain insights into their preparedness to engage with these critical issues as professionals and identify areas where educational interventions can be most effective.

Purpose: This study aims to explore how undergraduate engineering students of different genders reflect on their roles in combating systemic racism, comparing and contrasting their perspectives and proposed strategies. By understanding these gender differences, we can develop more targeted and effective approaches to integrate social justice education into engineering curricula and foster a more inclusive generation of engineers.

Methods: The study was conducted with 19 engineering technology students enrolled in a junior-level undergraduate Human Factors course. As part of the course, students completed a 90-minute online module introducing the principles of social justice and the realities of hostile design in urban planning and reflected on how they plan to combat systemic racism in their own lives, workplaces, and communities. These written reflections were analyzed qualitatively, coding for common themes and noteworthy differences across genders. Gender Schema Theory was applied as an analytical framework to interpret the findings.

Results: The analysis revealed both similarities and differences in how male and female engineering students reflected on their roles in combating systemic racism. Both genders emphasized the importance of education, self-reflection, and advocacy. However, male students often focused on individual-level actions and personal interactions, while female students tended to emphasize structured strategies, policy advocacy, and leadership roles. Male students frequently acknowledged their limited exposure to diversity and privileged backgrounds, whereas female students did not explicitly discuss personal experiences. Female students often provided more specific strategies for combating systemic racism, while male responses sometimes lacked specificity and expressed uncertainty about the best approaches.

Implications: These findings emphasize the importance of integrating educational practices that acknowledge and address gender differences in processing and responding to issues of systemic racism. Engineering educators should consider these insights when engaging students in anti-racism efforts, providing targeted support and guidance to different gender groups. Educational interventions could benefit from incorporating elements that challenge existing gender schemas—encouraging male students to engage more deeply with systemic analyses and supporting female students in discussing personal experiences and backgrounds. Ultimately,

fostering a united front against systemic racism requires leveraging the diverse strengths and perspectives of all genders while also acknowledging the unique challenges and experiences that shape their engagement with this critical issue.

Keywords: Gender differences, engineering education, systemic racism, social justice, gender schema theory, intersectionality, diversity and inclusion

1. Background

1.1 Systemic Racism

Systemic racism refers to the ongoing practices and policies within various sectors of society that result in unequal treatment and outcomes for different racial groups [1]. Systemic racism is deeply rooted within the institutional units such as the education sector, healthcare, housing, and the criminal justice system and this leads to significant differences in access to opportunities, resources, and fair treatment [2]. These differences are often reinforced by biased policies and practices contributing to the marginalization of communities of color [3]. Such discrimination keeps them in cycles of poverty, limited access to quality education, poorer health outcomes, and higher rates of involvement with the criminal justice system [1]. The widespread effects of systemic racism not only reduce individuals' quality of life but also limit their ability to improve their socioeconomic status and fully participate in society [4]. Addressing these systemic issues requires efforts across all sectors, including engineering, where professionals have a unique role in promoting equity and justice through their work.

1.2 Role of Engineers in Addressing Systemic Issues

Engineers can play an important role in addressing systemic issues, including those related to systemic racism. Their work in designing and implementing technology, infrastructure, and systems can either contribute to or reduce social inequalities [5]. The ethical responsibility of engineers goes beyond the technical aspects of their work; they must consider the social and justice implications of the systems they create. For example, engineers can help reduce inequalities by designing accessible technologies that serve diverse populations or by developing infrastructure that meets the needs of underrepresented and underserved communities [5], [6]. This approach requires engineers to carefully evaluate how their work affects different social groups and to strive for solutions that promote inclusivity, equity, and justice. Engineers have a responsibility to ensure that their projects do not reinforce existing inequalities but instead work towards creating a fairer and more equitable society [4], [7].

1.3 Social Justice Principles in Engineering Education

Incorporating social justice principles into engineering education is essential for preparing future engineers to effectively address systemic issues. This educational approach encourages students to think about the broader social impacts of their technical work and fosters a commitment to equity and fairness. Research shows that including social justice in engineering curricula can significantly influence how students view their roles as engineers, encouraging them to consider both the technical and ethical dimensions of their work [4], [5], [7]. By

integrating social justice into their education, students are more likely to engage in critical thinking about issues such as accessibility, sustainability, and the fair distribution of resources, which are often overlooked in traditional engineering programs [6], [7], [8]. This critical engagement is important for promoting more inclusive and socially responsible engineering practices. Studies have shown that when students are exposed to social justice frameworks, they are better equipped to develop solutions that address the needs of all members of society, particularly marginalized communities [5], [6]. Thus, integrating social justice into engineering education enhances technical competence of students and also prepares them to be agents of positive social change in their professional careers.

1.4 Purpose of the Study

This study seeks to explore how gender influences engineering students' reflections on and approaches to combating systemic racism. By analyzing these gender-based differences, the study aims to find unique perspectives that can inform the development of educational strategies to address the specific needs and viewpoints of male and female engineering students. The study aims to be a conversation starter toward developing targeted approaches for integrating social justice education into engineering curricula. By identifying effective strategies for teaching social justice, the study seeks to equip educators with the tools they need to prepare students to confront and address systemic issues. The goal is to foster a generation of technically proficient engineers who are also deeply committed to promoting fairness and social equity. By focusing on social justice education, the study aspires to instill in students the knowledge, skills, and ethical awareness necessary to tackle complex social challenges, ultimately contributing to creating a more just and equitable society.

2. Theoretical Framework

This study is grounded in Gender Schema Theory, a cognitive theory proposed by psychologist Sandra Bem in 1981 [9]. Gender Schema Theory posits that individuals develop cognitive frameworks or "schemas" about gender from an early age, which influence how they process and interpret information related to gender roles and behaviors [9]. These schemas are shaped by societal and cultural norms, and they play a significant role in how individuals perceive and interact with the world around them.

According to Bem [9], gender schemas act as cognitive lenses through which individuals filter and organize information. This process can lead to the reinforcement of gender stereotypes and influence decision-making processes, often unconsciously. In the context of engineering education and perspectives on social issues such as systemic racism, Gender Schema Theory provides a valuable framework for understanding how male and female students might approach these topics differently.

Research has shown that gender schemas can influence career choices, academic performance, and problem-solving approaches in STEM fields [10]. For instance, traditional gender schemas that associate engineering with masculinity may affect how female students perceive their role in addressing systemic issues within the field [11]. Conversely, male students may approach these issues through the lens of their own gender schemas, potentially influencing their recognition of privilege or their strategies for combating systemic racism.

Gender Schema Theory also suggests that individuals can be categorized as gender-schematic or gender-aschematic, with the former being more likely to process information and make decisions based on gender-related associations [12]. This categorization may help explain variations in how male and female engineering students reflect on and approach issues of social justice and systemic racism. By applying Gender Schema Theory to the analysis of engineering students' reflections on combating systemic racism, this study aims to uncover how gender-based cognitive frameworks might influence students' perceptions, biases, and proposed strategies. Understanding these gender-based differences can inform the development of more targeted and effective approaches to social justice education in engineering curricula, ultimately contributing to the formation of more socially conscious and equitable engineering practices.

3. Learning Design

The study was conducted in an undergraduate junior-level Human Factors course at a large Midwestern University. The course aimed to develop students' abilities to analyze and improve the safety, usability, and efficiency of human-technology interactions across various work environments, tasks, and products. Throughout the semester, students were involved in coursework that required them to engage in critical analysis and evaluations of design elements. They developed strategies for making design recommendations that improved the usability and efficiency of technology systems and created inclusive products. One of the key components of this course was that students conducted observational studies in public facilities. These studies were designed to critically analyze usability and design aspects and help students understand the importance of creating user-friendly systems for diverse people. This approach emphasizes that making systems usable for a broader audience not only simplifies tasks and fosters safety but also improves overall health and performance.

The Module on Social Justice and Hostile Design

The course included a specialized module on social justice and hostile design, aligning with the course's emphasis on making technology-based systems accessible and user-friendly for a diverse demographic, including various age groups, genders, nationalities, and cultures. This 90-minute online module, developed by an expert in intercultural development and STEM education, aimed to familiarize students with social justice concepts and the realities of hostile design in contemporary urban planning.

The first segment of the module introduced students to social justice principles through selected readings and videos showcasing examples of social injustice, with a significant focus on systemic racism and environmental injustice. These focus areas were illustrated with relevant engineering examples, highlighting the pervasive and structural nature of racism in societal systems. Students engaged in scenario-based reflections, which required them to critically evaluate and think of engineering solutions to address these social justice issues. This critical thinking exercise was further reinforced through a detailed case study on systemic racism, allowing students to apply social justice principles to real-world situations and propose engineering solutions to the highlighted issues.

The final segment of the module concentrated on hostile design. Through readings and videos,

students learned about intentional exclusionary practices embedded in everyday designs. They analyzed hostile design elements in public and private spaces through a case study and reflective scenarios, equipping them with the analytical tools and critical thinking skills necessary to recognize social injustices and propose innovative engineering solutions.

4. Methods

4.1 Participants

The Human Factors course had an initial enrollment of 22 engineering technology students who completed the online module. Out of the 22 enrolled students, 19 completed their reflections, forming the final sample for this study. The sample consisted of 5 students who identified as female and 14 who identified as male. This gender distribution (26.3% female, 73.7% male) is consistent with the typical enrollment demographic of the university’s engineering technology programs. Race and other demographic information were not collected for this study. The IRB approval was obtained before conducting the study.

4.2 Data Collection

Data was collected through guided written reflection submitted by the students upon completion of the systemic racism module. The reflection was specifically designed to assess their understanding and personal engagement with the concepts of social justice, systemic racism, and hostile design. This method of using guided reflections has been shown to be effective in capturing students’ thought processes and perspectives [13], [14]. The reflection prompts are provided in Table 1.

Table 1: Reflection Prompts for Data Collection

Question	Purpose
Considering systemic racism, reflect on any personal biases or preconceptions you may have and how they could influence your actions and decisions.	This question aimed to encourage students to introspect and identify any inherent biases or preconceptions they might hold. By acknowledging these biases, students could better understand how such preconceptions might shape their actions, decisions, and interactions in both personal and professional contexts. This self-awareness is a crucial first step in addressing systemic racism, as it allows individuals to recognize and mitigate the impact of their biases.
What strategies or actions can you take to actively combat systemic racism in your own life, workplace, or community?	The second question focused on actionable strategies and concrete steps that students could take to counter systemic racism. This prompt encouraged students to think proactively about their roles in fostering equity and inclusivity. It required them to consider how they could implement changes in their personal lives, workplaces, or broader communities to actively combat systemic racism.

These reflection questions were designed to not only assess students’ understanding of the issues but to inspire them to take meaningful action as well. The students’ written responses provided rich qualitative data, offering insights into their perspectives toward recognizing and addressing systemic racism.

4.3 Data Analysis

The data was analyzed using thematic analysis [15]. The process was structured in three key phases: 1) *Open Coding*. Firstly, student reflections were read multiple times to become familiar with the content. During this phase, codes were generated to capture key concepts and ideas expressed by the students. Each reflection was broken down into discrete parts, and labels were assigned to these parts based on the significant statements related to personal biases, strategies to combat systemic racism, and reflections on social justice principles. 2) *Axial Coding*. Following open coding, axial coding was conducted to organize the codes into categories. This phase involved grouping related codes to form categories that captured broader themes. The relationships between the initial codes were examined to understand how different concepts were interlinked. For example, codes related to recognizing personal biases were grouped, while those about actionable strategies against systemic racism were categorized separately. 3) *Development of Final Themes*. In the final phase, the categories developed during axial coding were synthesized into overarching themes. These themes represented the core insights derived from the data, reflecting students' understanding and personal engagement with the issues of systemic racism and hostile design. The iterative process of developing and refining themes followed best practices in qualitative research, ensuring a rigorous and systematic approach to data analysis [16], [17].

4.4 Ethical and Trustworthiness Considerations

To ensure the ethical integrity and trustworthiness of the data analysis, several measures were implemented. Firstly, the confidentiality and anonymity of the students' reflections were maintained throughout the study to protect their privacy. For the trustworthiness of the data, the coding process was conducted independently by two raters following best practices [18], enhancing the reliability of the findings through triangulation. After completing their initial coding, the raters engaged in peer debriefing sessions to discuss their codes and resolve any discrepancies, ensuring a comprehensive and accurate understanding of the data. The peer debriefing process provided an additional layer of scrutiny and validation, contributing to the robustness of the analysis. Furthermore, the percentage agreement between the two raters was calculated to assess the consistency of the coding. The final percentage agreement was 87%, indicating a high level of reliability and consensus in the coding process. This rigorous approach to data analysis ensured that the identified themes were both credible and reflective of the students' perspectives.

4.5 Positionality of the Authors

The research team consisted of four members with distinct roles in the study. The first author, while not involved in course instruction, led the data analysis and manuscript writing. The second author implemented the social justice module within the course curriculum. The third author served as the primary instructor for the Human Factors course. The fourth author, an undergraduate student, assisted with the research process. The team included both male and female researchers with diverse research experience across various academic levels. To maintain objectivity, the second and third authors were not involved in conducting the data

analysis presented in the manuscript but contributed to the writing of the manuscript. This separation of roles helped mitigate potential bias in interpreting student reflections. Moreover, the team employed peer-debriefing techniques to enhance the credibility and trustworthiness of the findings. All authors acknowledge the potential influence of their own backgrounds and experiences on the study design and interpretation and actively engaged in reflexive practices throughout the research process.

5. Results

5.1 Similarities Across Genders

Both male and female students expressed a common desire to actively engage in combating systemic racism primarily through personal reflection, education, and advocacy. Key similarities include:

5.1.1 Education and Awareness: Both genders emphasized the importance of educating themselves about systemic racism and its impacts. This includes learning from various sources and attending events or programs that promote diversity and inclusion.

- *“The first thing I can do is educate myself on current issues and also systemic racism. Using my education I can then promote and encourage diversity and inclusion in all aspects of my life by being a leader.”* (Female)
- *“Reading books, watching documentaries, or taking courses on multiculturalism and diversity can also broaden your understanding.”* (Male)

5.1.2 Personal Reflection: Both male and female students highlighted the need for personal reflection on their biases and preconceptions. This self-awareness is seen as a crucial step in being able to effectively combat systemic racism.

- *“I think I can use many strategies to actively combat systemic racism in my own life. One strategy is to continuously educate myself on the history and impact of systemic racism, including its manifestations in different contexts such as education and criminal justice. I can also strive to deeply reflect on my own biases and preconceptions.”* (Female)
- *“First, it is important to acknowledge and understand your own biases and prejudices. You can start this process through self-reflection, and further develop your understanding through diversity and inclusion education.”* (Male)

5.1.3 Advocacy and Inclusion: Many students expressed intentions to advocate for diversity and inclusivity in their workplaces or communities. This involves supporting policies that promote racial equity and engaging in activities that raise awareness about racial issues.

- *“As a leader I will speak up against things I believe or see to be wrong and use my voice to challenge stereotypes.”* (Female)
- *“I will support diversity and inclusion programs at work, such as fair hiring procedures and chances for underrepresented groups to advance their careers. Furthermore, I will back neighborhood groups and projects that aim to eradicate systematic racism.”* (Male)

5.2 Differences Between Genders

The responses also showcased some differences in perspectives and approaches based on gender, which can provide insights into the nuanced ways different genders perceive and propose to tackle systemic racism:

5.2.1 Approach to Engagement

- Male: Many male students focused on individual-level actions and discussed their role in terms of societal interactions. There was also a focus on changing personal behaviors, such as being more inclusive in group projects and daily interactions.
 - *“I could give everyone I interact with the same level of respect that I feel I deserve.”*
 - *“If I work in an area where I would work with different groups of people on a regular basis, I would consider one group’s needs just as valuable as any others, no matter who they are.”*
 - *“A strategy I can take is to actively make sure I am including everyone possible for a certain situation like a group project and ask for everyone’s input.”*
 - *“I can do my part in helping this by simply being more inclusive with peers of a different race and being supportive of businesses that are owned by someone of a different race. By including myself in activities with these peers such as working out with someone at the corec or doing hw together and being supportive of these shops I, as a student, can do my best in help combat systematic racism”*
- Female: Female students tended to emphasize structured strategies such as supporting organizations dedicated to combating systemic racism, advocating for policy changes actively speaking up against racism, and taking leadership roles in promoting diversity.
 - *“As a leader I will speak up against things I believe or see to be wrong and use my voice to challenge stereotypes.”*
 - *“I can also advocate for policy changes at local, national, and global levels that address systemic racism and work toward promoting racial justice.”*
 - *“In the workplace, promoting diversity and inclusion initiatives, advocating for equitable policies, and fostering a supportive environment for underrepresented groups can create positive change.”*

5.2.2 Expression of Personal Experiences

- Male: Male students acknowledged their limited exposure to diversity and their privileged backgrounds. Several male students mentioned growing up in predominantly white areas, recognizing this as a potential source of bias.
 - *“I grew up at a school of over 3000 kids and less than 10 were African American. I don't actively choose to discriminate, and I am trying to combat it whenever I can. But it is difficult when most of my peers and family are white.”*
 - *“I grew up in a majority white area, so learning about others challenges and situations then making sure I consider them would be a great action.”*
- Female: In contrast to their male counterparts, the female students in this sample did not explicitly discuss their backgrounds or experiences with diversity. Their reflections tended to focus more on actions and strategies to combat systemic racism without

referencing their upbringing or personal exposure to diversity.

5.2.3 Specificity in Actions

- Male: Responses from male students often lacked specificity and depicted confusion, with some responses expressing uncertainty about the best ways to combat systemic racism or reflecting on systemic racism in more theoretical terms.
 - *“To be honest though I have no idea I’m not a minority in fact the polar opposite I’ve lived in the US my whole life and have a very privileged background. So personally I don’t believe I have any authority to talk about solving these issues.”*
 - *“Because as a white man it’s so confusing on what to do. On one hand I wanna be “colorblind” and treat everyone equally but that can be interpreted as not accepting problems and historical inequalities in people’s backgrounds. It can be very confusing regarding what to do to solve the issue”*
- Female: Female students often provided more specific strategies for combating systemic racism, such as actively challenging racist behaviors and advocating for concrete policy changes in their immediate environments,
 - *“Something I thought of immediately, is that when I worked a supply chain internship, I realized that there was a conception in my American team, that when working with Asian suppliers (specifically Korean or Japanese) given the conceptions of their race in the industry, we can expect quick turnarounds...I think speaking out when patterns like this are recognized are important in helping fight against personal/societal preconceptions.”*

These responses highlight that while there is a shared commitment to addressing systemic racism, there are gender-based differences in how individuals perceive their roles and the specific actions they prioritize. This reflects broader societal dynamics and possibly different experiences with systemic issues based on gender.

6. Discussion

The findings from this study provide valuable insights into the gender-based differences and similarities in perspectives and actions toward combating systemic racism among engineering students. Utilizing Gender Schema Theory, the study explored how societal and cultural constructs of gender influence the responses and attitudes of male and female students. Gender Schema Theory suggests that gender-specific schemas shape how individuals interpret their experiences and actions, which was evident in the distinct approaches to addressing systemic racism observed between genders.

6.1 Interpretation of Similarities

Both male and female students emphasized the importance of education, self-reflection, and advocacy in combating systemic racism. These similarities suggest that despite gender differences in some areas, there is a common understanding among students of the fundamental steps necessary to combat systemic racism. This could indicate that the

curriculum or societal messages about ways to combat racism are reaching a wide audience effectively. This commonality may also reflect broader societal shifts towards acknowledging and confronting systemic racism, transcending gender-based schemas. Both male and female students recognize the importance of being informed and proactive, which is crucial for fostering environments that challenge systemic inequities.

6.2 Interpretation of Differences

Males in this study focused more on individual actions and societal interactions, possibly reflecting traditional masculine norms that emphasize autonomy and individualism [19]. This is evident in their discussions about changing personal behaviors and being inclusive in daily interactions, which suggest a schema that prioritizes personal responsibility over systemic change. Conversely, female students emphasized structured strategies and systemic advocacy, which may reflect a more communal approach traditionally associated with feminine norms [20]. Their focus on advocating for policy changes and supporting organizational initiatives indicates a schema that is more attuned to communal and relational strategies. This approach aligns with findings from feminist psychology, which suggests that women are often more likely than men to engage in social change strategies that are cooperative and community-oriented [21].

The lack of discussion about personal backgrounds among female students, as opposed to their male counterparts who acknowledged their predominantly white and privileged environments, might suggest 1) differing communication styles and 2) differences in how gender influences the perception of one's role in systemic racism. Men's use of personal narratives aligns with Wood's [22] research suggesting men use more self-focused language in social issue discussions. The lack of personal disclosure among female students could be interpreted through feminist standpoint theory [23], suggesting marginalized groups may develop a more critical understanding of systemic issues due to their experiences navigating societal power structures, leading to a focus on systemic solutions rather than personal narratives. Males may feel a need to acknowledge their background as part of understanding their position within systemic racism, a reflection spurred by societal expectations to recognize privilege. Females might focus less on their backgrounds and more on actionable strategies, possibly due to a societal emphasis on nurturing and change facilitation in women.

The specificity difference in proposed actions, with female students offering more concrete strategies and male students expressing more uncertainty, further aligns with gender schema theory. Females' greater specificity might stem from schemas emphasizing attention to detail and practical problem-solving in social contexts [24]. Male students expressed confusion could reflect growing awareness of privilege and recalibration of gender schemas in relation to racial issues, a process described by Helms [25] in racial identity development. This specificity difference may also relate to differing levels of engagement with diversity issues, as research shows women tend to have more positive attitudes towards diversity and inclusion initiatives [26], potentially translating into more developed ideas about addressing systemic racism.

6.3 Implications

These findings underscore the importance of integrating educational practices that acknowledge and address gender differences in processing and responding to issues of systemic racism. Educational interventions could benefit from incorporating elements that challenge existing gender schemas—encouraging male students to engage more deeply with systemic analyses and supporting female students in discussing personal experiences and backgrounds. The results suggest a need for educational approaches that bridge these gendered perspectives, encouraging both individual and systemic-level thinking across genders. This could involve creating learning environments that foster cross-gender dialogue and collaboration on anti-racism initiatives.

7. Conclusion, Limitations, and Future Work

This study provided an insightful exploration of how gender influences perspectives and actions toward combating systemic racism among engineering students. Utilizing Gender Schema Theory, the findings highlighted significant differences in the approaches between male and female students, with males focusing more on individual-level actions and females on structured strategies and systemic advocacy. Despite these differences, both groups showed a strong commitment to education, personal reflection, and advocacy, underscoring a shared foundational understanding of the steps necessary to combat systemic racism.

One of the primary limitations of this study is the small sample size, which may not fully represent the diverse experiences and perspectives of all engineering students. Additionally, the study's focus was largely on gender differences without considering the intersectionality of other identity factors such as race, ethnicity, socioeconomic status, or sexual orientation, which could also significantly impact students' perspectives and experiences regarding systemic racism. The scope was also limited to a single educational setting, which may not capture the full spectrum of educational experiences across different institutions or cultural contexts.

Given the limitations and the initial findings of this study, there is substantial room for future research to expand understanding in this area. Future studies could explore:

- How do faculty beliefs about gender and systemic racism influence their teaching practices, and what is the subsequent impact on student perceptions and actions?
- What role does intersectionality play in shaping the responses of engineering students to systemic racism, particularly when multiple identities are considered?
- What are the long-term impacts of educational interventions on gender-specific perceptions and actions towards systemic racism among engineering graduates?
- How can educational tools be designed to effectively challenge and reshape gender schemas related to systemic injustice?
- How do faculty beliefs about gender and systemic racism influence their teaching practices, and what is the subsequent impact on student perceptions and actions?

These questions aim to broaden the scope of research into the complex dynamics of gender, education, and systemic racism, offering pathways for more comprehensive studies.

In conclusion, this study is intended as a conversation starter, aimed at sparking broader discussions about the role of gender in educational approaches to systemic racism. By

highlighting the nuances in how different genders perceive and react to systemic issues, the study encourages educators, policymakers, and researchers to consider more inclusive and tailored educational strategies. This dialogue is crucial for developing effective interventions that not only address systemic racism but also foster an educational environment that respects and utilizes the diverse perspectives of all students. Through ongoing research and conversation, it is hoped that more dynamic and effective solutions can be developed, contributing to a more just and equitable society.

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