

Exploring Peacebuilding and Peacekeeping Through the Lens of Women Empowerment for and in Smart City Perspective

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Abstract— This article explores the role of women in peacebuilding and empowerment in the context of smart cities. The focus is on India, China, and the Philippines as examples of countries where women's participation in peacebuilding is gaining attention. The article emphasizes the importance of digital technologies in creating opportunities and challenges for women as key players in smart cities, and the need to modify the role of civil society in the digital peacebuilding agenda. The safety and livability of a city is closely linked to the role of women, and the article stresses the importance of reducing inequalities between men and women in decision-making processes. Finally, the article calls for collaboration among various authorities, policy makers, technology experts, and peacebuilders to make a measurable and positive impact on conflict management and peacebuilding capabilities in smart cities.

Keywords— Women empowerment, Peacebuilding, Smart cities, Digital technologies, Civil society, Inequality, Decision-making, Safety, Livability, Conflict management, Collaboration, Policy makers, Technology experts, Peacebuilders.

INTRODUCTION

"Respecting and protecting women's rights is not only a reflection of progress in human society and civilization, but also closely linked to global peace and development." This statement of China's permanent representative to the United Nations, Liu Jieyi, is a powerful idea that helps in understanding both the roles and contribution of women in peacebuilding process in any community especially in a smart city transformation.

Transforming a city into smart or maintaining a sustainable operation of a smart city while keeping and building peace requires participation of women. As Natali (2018) added, continuing urbanization is associated with many positive development outcomes, including higher income and lower infant mortality, rapid urbanization also increases the threat of conflict and insecurity. Many fast-developing cities create situations of significant disparities in standards of living, which can set up a fertile environment for violence and conflict. Thus, peacekeeping and peacebuilding are important things to consider.

To emphasize, peace cannot be defined merely as the absence of conflict. To women's civil society around the world, human rights and human security, sustainable development, responsible natural resource management, good governance, and a harmonious community relying on non-violent conflict resolution are the foundation of

peace (Muganda, 2021). Focusing on the problem in conflict, the wide availability of digital technologies is increasingly impacting the work of peacebuilders, altering both peacebuilding practices and conflict dynamics. The malicious use of technology, from the weaponization of social media to digital authoritarianism and cyberattacks, creates threats to peaceful societies and urges peacebuilders to consider new fields of action in cyberspace (Hofstetter, 2021). This is reinforced with the idea that the lack of women's participation as active citizens impacts also on web-based forms of civic consultation and engagement in smart cities initiatives. People who reported they feel that the time spent on voluntary work and political activities is too little (Eurofund, 2012).

In societies where women have higher social and economic status and greater political representation are less likely to become involved in conflict. Thus, prospects for successful post-conflict peacebuilding under the supports of the United Nations (UN) are generally better in societies where women have greater levels of empowerment.

Women's status in a society reflects the existence of multiple social networks and domestic capacity not captured by purely economic measures of development such as GDP per capita. In societies where women have relatively higher status, women have more opportunities

to express a voice in the peacemaking process and to elicit broader domestic participation in externally led peacekeeping operations (Gizelis, 2009).

Although the inclusion of women in peacebuilding processes has gained momentum in policy discussions over the last years, the number of women in decision-making positions remains relatively small. Peacebuilding is the foundation for creating sustainable human security and equitable development in countries emerging from conflict and transforming to smart cities. One major challenge is that women are often not perceived to have the skills, knowledge or social status needed to bring about change in post-conflict environments. Changing this requires a mind-shift by negotiators and mediators on how they view the role of women. The integration of women in key post-conflict processes can take various forms (Kumalo, 2015).

Thus, empowering women leaders to participate in peacebuilding becomes increasingly crucial. Women who participate in peace processes tend to represent broader and more diverse constituencies, ensuring a range of views and interests are represented and peace processes are fully democratized (United Nation Women, n.d.)

Review on Important Related Points on Peacebuilding

The following are concepts and propositions identified to be helpful in exploring peacebuilding and peacekeeping process in society and how can these be used in smart city where women empowerment is an important dimension to looked at:

1. **PeaceTech.** This is an emerging field that offers new ways for citizens to democratize and engage with peacebuilding processes. Peacetech is an intersection of technology, data and media to reduce violent conflict (Gaskell, 2019). This is an appropriate lens to which this analysis is to be looked upon because it identifies technologies that empowers women towards peacebuilding process in a smart city.
2. **Foucauldian Concept of Governmentality.** This investigates empowerment as a technology of biopolitics that is central to the European neoliberal model of governance. The empowerment of women based on the self-optimization of individuals and the statistical control of the female population is a form of biopower (Huelss, 2019).

This is a good basis since it looks on how women look at themselves as a tool for peacebuilding towards peacekeeping and peacebuilding in a smart city.

3. Digitalization has brought major innovations to the work of peacebuilders, establishing a new field of practice known as ‘digital peacebuilding’. Many of the important uses of peace technologies are for conflict prevention, transformation, and reconciliation, have been driven by civil society organizations, who are at the forefront of addressing the rising threat of digital conflict drivers, too (Hofstetter, 2021). With being said, this mirrors the smart technologies used by women to empower peacebuilding in the transformation of smart cities.
4. Peacebuilding in cities seeks not the well-publicized handshakes of national political elites, but rather the more mundane, but ultimately more meaningful, handshakes and smiles of ethnically diverse urban neighbors as they confront each other in their daily interactions and adventures. Perceived latent power of cities to influence societal change is very important (Bollens, 2006) is another basis of this analysis that. This is deemed appropriate concept to investigate internally on how these smart technologies enable women with power to build peace in the smart city.
5. The key message of the new publication *Smart Cities: Shaping Societies for 2030*, co-edited by UNESCO and the Netexplo Observatory, and presented at the 12th Annual Netexplo Forum, 17 to 19 April 2019, at UNESCO Headquarters in Paris, that be effective, this “smartness” must adopt a humanistic approach and leave no one behind since huge opportunities are opening with smart cities is another basis that this synthesis investigated. The humanistic approach to look at the role of women in smart city peacebuilding can be a good point to emphasize in city development.
6. Fragile cities also struggle to provide adequate security and protection for its inhabitants, particularly for women, urban poor, migrant communities, and other marginalized groups. Such groups are often disproportionately affected by conflict, displacement, and urban violence, while marginalization is frequently cited as a driver of conflict and violence (Smith, 2017) is another springboard of this synthesis that. Thus, by this concept, the role of empowered women driven by smart technologies is deemed essential for peace building and sustainability.

7. China calls for more women participation in peacebuilding process calling the attention of the international community to give more attention to the special role of women in peacebuilding process, and the protection of women during and after conflicts (Xinhua News Agency (2013). This call sees the greater value of women in the conflict-resolving process and building peace for community development onwards.
8. Mindanao peace process in the Philippines includes the participation of grassroots organizations and community-based peace advocates in building peace through local women's organizations (Muganda, 2021). This move has seen the value of women especially women organizations in peacebuilding process that exist between conflicts of ideologies.
9. Smart cities must be safe for women and girls and must reduce inequalities between women and men and optimize the use of technology in empowering women for peacebuilding in a smart city. Although men tend to dominate the formal roles in a peacebuilding process, it should be noted that power must be equally distributed between men and women so that most women will have a voice in local and national decision-making processes for peacebuilding (Peacebuilding Initiative, n.d.). This looks at the equal distribution of chances, opportunities, and treatment between men and women to what they can contribute to peacebuilding and peacekeeping process.
10. The collaboration among senior executives and experts from leading governmental organizations, universities, corporations, and nongovernmental organizations is a good start to make a measurable and positive impact on conflict management, peacebuilding, and security capabilities. Accelerating the application of science and technology to the process of peacebuilding and stabilization, promoting systematic, high-level communication between peacebuilding and technical organizations on the problems faced and the technical capabilities required for successful peacebuilding, and collaborating in applying new science and technology to the most pressing challenges for local and international peacebuilders working in conflict zones, are just three steps that are deemed important in peacebuilding (United, S. I. O. P. & National, A. O. E., 2012). This is the use of technology advancement to solve conflicts.

Smart Technologies that Empower Women for Peacebuilding

Given that ICTs provide new opportunities for contact, participation and communication, there are clear linkages to peacebuilding and its associated practices.

In the report of Melhem, Morell, and Tandon (2009), a brief overview of major themes for women and ICTs, including issues for girls versus women; the ICT workforce, and opportunities versus the threat of ICTs for women's lives were presented. The report discussed the issue of women and Sciences and Technologies. Several policy recommendations were drawn, amongst which the economic opportunities women can bring to development through ICTs will not be realized unless policies for all mainstream efforts take gender considerations into account. Forums that allow gender experts to debate the issues and arrive at a diversity of perspectives and recommendations that recognize the complexity of the issues and their impact on socio economic development is a good venue to empower women for peacebuilding.

Specifically, mobile apps and crowdsourcing initiatives clearly help promote gender equality and by extension, human rights when they allow women and communities to participate in urban planning. And often, the women who pioneer these innovations do so at great personal risk. But, like all activism and advocacy, progress can only be fully cemented when accompanied by policy change and intentional strategies to harness data and technology. The vision we have is that the tools of the Smart City are used to achieve the goals of the Just City. This will enable greater inclusion, safety, resilience, and sustainability so that cities may flourish and provide opportunities for productive lives for all their residents (Gill, n.d.).

Putting into emphasis also is the idea that the use of digital technologies in peacebuilding work is not a novel phenomenon. Mobile phone networks were running to counter rumors and keep communities connected during stretches of sectarian violence. Social activism organization can be empowered by organizing widespread social justice campaigns using mobile text messaging (SMS) technology. And the importance of data collection for conflict prevention gained prominence in the early 2000s with intergovernmental initiatives such as the African Union's (AU) Continental Early Warning System (Peace Direct, 2020).

With the aid of several literatures researched from different sources, the table below shows the different

smart technologies that empower women for peacebuilding.

Table 1. Smart Technologies that Empower Women for Peacebuilding

Smart Technology	Reference Text	How This Helps Women in Peacebuilding
Mobile Phones and Internet	Mobile phones are significant technology to cope with daily time struggles among young women in India. Using mobile phones reinforces the focus on the “smart safe city” in India that mobilizes the logics of a technological fix (Datta, 2020).	<ol style="list-style-type: none"> 1. Connecting with other peacebuilders, law enforcers, and other advocates 2. Use for accessing platforms like social media and webpage platforms 3. Reporting conflicts and terrorisms and as well as abuse in the community
Social Media	Social media can be used to provide humanitarian agencies, policy makers and academics seeking to understand and respond to violent crises with data unavailable from other sources (Roberts & Marchais, 2018).	<ol style="list-style-type: none"> 1. Use for networking with other peacebuilders, law enforcers, and peace advocates. 2. Access information and current events relative to peace and conflict. 3. Advertise advocacy on peacebuilding.
LG Smart Techs	LG smart tech products supports working women save up on time, be more efficient, save energy and money, and spend more quality time with the family. With added unique features, LG appliances increase convenience and efficiency, helping women live a happier work life, which means happier homes. With the industry’s most extensive range of smart appliances available today and a technology that comes to life in everyday products, LG Electronics is offering women more ways to control their homes, enjoy their lives, and go to their jobs stress-free (Al Bawaba, 2019).	<ol style="list-style-type: none"> 1. Reinforce multitasking roles with the aid of smart techs. 2. Strengthen the role as wife, parent, and a career a woman by doing things simultaneously with the aid of smart techs.
CSA (Climate-Smart Agriculture) Techs	These farmers have applauded the use of smart climate agriculture as one of the tools to enhance women's empowerment in South Africa. This type of intervention could potentially reduce food insecurity, especially the bigger households and those households that are women (Mmbengwa, Nyambe, Madzivhandila, Kambanje, & Rambau, 2020).	<ol style="list-style-type: none"> 1. Increase participation of women in agriculture with equal treatment for men leading to greater production which leads to poverty reduction. 2. With convenient farming for women, those who are victims of abuse from battery will have now confidence to participate in agriculture jobs without worrying and relying from husbands.
Wearable Tech Solutions	Wearable technology solution for women that combines a removable state-of-the-art notification system with real, fashionable jewelry in precious metals will empower women to express their personal style--while staying connected--with a variety of beautiful jewelry designs and interchanging them (PR Newswire, 2014).	<ol style="list-style-type: none"> 1. Empower woman image through fashion techs. 2. Communicate with other key players through the use of fashionable wearable techs.

Game Apps	“Serious Gaming” tools that may transform the way that peacebuilding organizations plan and collaborate (United States Institute of Peace, n.d.)	Training the minds and competence of women in terms of planning in peacebuilding process can be through games that will help women think of a plan in peacemaking and peacebuilding.
Webpages and Platforms	The ‘mock-up’ webpage created for the purposes of reporting conflicts exiting in community using accurate data sourced directly from the Police Service data sets (Young & Young, n.d.).	<ol style="list-style-type: none"> 1. Access services from NGOs through webpage and platforms that will reinforce peacebuilding process. 2. Connect with other key players like peacebuilders, law enforcers, and advocates. 3. Access data which can help women in decision-making.
Women Themselves	With or without smart technologies, these women are smart tech machineries who are capable to use themselves in empowering themselves for peacemaking and peacebuilding process in smart cities.	

Concluding Remarks

Upon reading articles and reviews on women empowerment for peacebuilding in smart cities, majority of research studies about smart cities are contextualized in India. This means that India is moving forward of transforming into smart nation which investigates different dimensions including women empowerment and peacebuilding. But China is a strong call for more women participation in peacebuilding process catching the attention of the international community to give more attention to the special role of women in peacebuilding process, and the protection of women during and after conflicts. Also, Philippines is starting to see the value of women empowerment, roles, and contributions of women for them to be peace advocates in building peace through local women’s organizations.

The opportunities and challenges digital technologies create for peacebuilders specifically for women key players in smart cities must be investigated. It is important to consider actions in modifying the role of civil society for future directions for the digital peacebuilding agenda. The number of women that appear in the public realm, during the day and especially at night, is an indicator of the health of a society and the safety and livability of a city. The more that the built environment is designed with women in mind, the more women will feel safe, welcome, and comfortable using public space and the more livable a city will be for everyone.

Smart cities must be safe for women and girls and must reduce inequalities between women and men which emphasizes that power must be equally distributed between men and women so that most women will have a voice in local and national decision-making processes

for peacebuilding. While it cannot be argued that smart cities can offer a lot of advantage to the life of women including provision of peaceful life and security, the sustainability of peace in the smart city requires the role of women. After all, reciprocation of what the smart city can give requires an effort of women to what they can offer to build and keep peace in the community.

In addition, peacebuilding interventions are usually focusing on giving services in response to demands elicited from societies in crisis. The use of technology to understand and manage the supply of services and product in response to such demands is deemed necessary. Other systems methods might be available for application to peacebuilding must be unified despite their dynamism and contexts.

Lastly, the collaboration among authorities, policy, technology, and peace experts from government, organizations, universities, corporations, and NGOs is a good start to make a measurable and positive impact on conflict management, peacebuilding, and security capabilities for sustainable smart city innovation. Accelerating the application of science and technology to the process of peacebuilding and stabilization, promoting systematic, high-level communication between peacebuilding and technical organizations on the problems faced and the technical capabilities required for successful peacebuilding, and collaborating in applying new science and technology to the most pressing challenges for local and international peacebuilders working in conflict zones, are just three steps that are deemed important in peacebuilding.

The following written case of Davao City’s Peace 911 shows how a peacebuilding process can aid in the transformation into smart while empowering women:

PEACE 911 AS INITIATIVE FOR DAVAO'S TRANSFORMATION TO SMART CITY

The Peace 911. This is a peace and development initiative of the city government of Davao City, Philippines, bringing in basic services that the Davaoeños have long been deprived from because of violence and conflict. The initiative is done by sending “caravan of services” twice a month to the affected barangays in collaboration with the local government units and these services include health, agriculture, legal services, social services, education, cooperatives, civil registry, land transportation, and many more. One highlight is the establishment of local hotline for assistance which unexpectedly, rebels called in and surrendered until the city where this initiative is piloted is declared now clear of communist insurgency. In this initiative, consultations called “Panag-ambit” were held in barangays to listen to the concerns not only of the barangay officials but also of members of women’s, youth, farmers, indigenous people, and faith-based organizations (Magtulis, n.d.).

Impacts of Peace 911. The initiative resulted to three important impacts: (1) Local Engagement at All Levels, (2) Conflict Resolution between Armed People and Military, and (3) Women Empowerment and Engagement. With the implementation of this initiative, locals were hired as field staff to monitor developments on the ground and make sure that immediate action was taken on any problem.

The Indigenous People’s Structure, the highest decision-making body of the Ata tribe, was given assistance to implement their ancestral domain sustainable development and protection plan. Young people started arts, sports, and blogging activities. The most destitute farmers were prioritized in an innovative lending scheme that would tide them over while their plants were not productive. Barangays were empowered to form a Barangay Peace 911 as the decision-making body for local peace concerns. Women were trained in container gardening that enabled them to have readily available organic vegetables for their families and for selling to their neighbors which contributes to solutions in addressing the problem of hunger. Women were also grouped together to sell rice in their neighborhood, starting in the barangays where women had to walk a great distance to buy the staple at prices higher than usual ((Institute for Economics & Peace, 2021).

Ways Forward and Conclusion. While Peace 911 employs a traditional approach of addressing the needs without using high end technology, the initiative has paved way in addressing the conflicts and violence brought by communist insurgency. With the principle of principal-agent performed by the government, this “Panag ambit” technique attached to Peace 911 is an essential needs assessment process of community needs assessment by engaging all the levels to share their concerns and needs so local government units will be able to respond accordingly.

This consultation gives access to equality and equity among all members of the community not only the indigenous groups but also the women who have greater roles in peacebuilding and conflict resolving process.

The participation of women in the community such as agricultural engagement and livelihood programs supported by government has paved way to peaceful community. Rebels were transformed and supported in an economic and civic ways which lessened the activities of violence and conflicts.

As Peace 911 prospers to resolve conflict and violence in remote districts in Davao, the city is now considered to be the first in the country to use technology to improve public safety from a smart city perspective. Although the correlation is unclear, Davao City is now rated among the world’s 15 safest. As reported in Mindanao Journal (2021), two-thirds (67%) of EIU survey respondents agree that Davao is a smart city today and the primary reason (cited by 51%) was a safe and secure environment.

Not only about peacebuilding initiatives, but Davao City also has several projects related to smart city development, such as ecological waste management.

The Davao City government is eyeing to become the country’s first smartest and safest city with the upgrading of its Intelligent Transport Management System (ITMS) and the Intelligent Operation Center (IOC). Led by a city mayor that is a woman and who values women engagement and participation, Davao City has various programs for women other than peacebuilding processes.

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