



LOCAL WISDOM AND CIVIC CULTURE IN SOCIETY 5.0 : ETHICAL AND CULTURAL SHIFTS FOR SOCIAL TRANSFORMATION

Lili Halimah^{*1)}, Jajang Hendar Hendrawan²⁾, Indah Kristina Wulandari³⁾, Indah Khoirunnisa Tosin⁴⁾

1. Program Studi Magister PIPS, STKIP Pasundan, Cimahi, Jawa Barat, Indonesia
Email address: lili.halimah@gmail.com
2. Program Studi Magister PIPS, STKIP Pasundan, Cimahi, Jawa Barat, Indonesia
Email address: jajang_hendra@yahoo.com
3. Program Studi Magister PIPS, STKIP Pasundan, Cimahi, Jawa Barat, Indonesia
Email address: indahkristina888@gmail.com
4. Program Studi Magister PIPS, STKIP Pasundan, Cimahi, Jawa Barat, Indonesia
Email address: indahkhoirunnisat@gmail.com

Abstract - The transformation toward Society 5.0 brings both opportunities and challenges, particularly regarding ethical dilemmas and cultural shifts. While technology enhances efficiency and global connectivity, it also risks weakening cultural identity and civic values. This paper emphasizes the novelty of integrating local wisdom and civic culture as a framework to balance technological progress with ethical and cultural sustainability. This study applies a qualitative-descriptive approach through a literature-based review. Scholarly works on Society 5.0, digital ethics, local wisdom, and citizenship education are analyzed to construct a conceptual framework for understanding ethical and cultural transformations. The findings reveal that local wisdom reinforces community resilience and provides moral guidance, while civic culture strengthens democratic participation, responsibility, and social cohesion. Their integration offers a conceptual model for redefining citizenship in the digital era, ensuring that ethical and cultural dimensions remain central in social transformation. Society 5.0 should not only be viewed as a technological revolution but also as an ethical and cultural reconstruction. Embedding local wisdom and civic culture ensures inclusivity, justice, and sustainability, enabling citizens to remain globally connected yet firmly rooted in local values.

Keywords: *Society 5.0, Local Wisdom, Civic Culture, Ethics, Social Transformation*

I. INTRODUCTION

The vision of **Society 5.0** reframes digital transformation as a *human-centered* project in which cyber-physical systems, AI, and data infrastructures are orchestrated to solve social problems while enhancing well-being and inclusion [1]–[3]. Moving beyond Industry 4.0's productivity focus, it casts technology as a cultural and ethical endeavor: citizens are not merely data subjects or consumers but co-creators of public value. This paper argues that realizing that promise—especially in plural societies—requires integrating **local wisdom** (indigenous and community-embedded knowledge) with **civic culture** (norms, trust, and participation that sustain democratic life). We examine how this integration can ethically “re-define citizenship” for Society 5.0 by aligning global digital norms with situated cultural practices.

Classic theories of **civic culture** highlight that durable democracies rest on everyday norms of trust, reciprocity, and participation [4], [5]. Dahl's notion of *polyarchy* links responsive institutions to citizen capabilities for voice and contestation [6], while Habermas situates legitimate governance in a **public sphere** of inclusive, reasoned deliberation [7]. In the digital era, these conditions are reconfigured: networked platforms reshape attention, participation, and the very architectures of the public sphere [8], [9]. As boyd shows, youth negotiate identity, privacy, and power in networked publics in ways that are culturally specific yet globally entangled [10]. Hence, any Society 5.0



project must be attentive to *how* technologies mediate civic life across different cultural contexts.

Ethics frameworks for AI and data likewise emphasize human agency and justice. Comparative reviews identify convergence around five principles—**beneficence, non-maleficence, autonomy, justice, and explicability**—but also reveal divergence in implementation across jurisdictions and sectors [11], [12]. Public governance instruments—from the OECD AI Principles and UNESCO’s Recommendation on the Ethics of AI to the NIST AI Risk Management Framework and IEEE’s *Ethically Aligned Design*—translate these values into high-level guidance for practice [13]–[16]. Yet long-standing critiques remind us that socio-technical systems can encode **preexisting, technical, and emergent bias** [17], while “surveillance capitalism” risks subordinating civic agency to extractive data logics [18]. The ethical task in Society 5.0 is therefore not only to adopt principles but to **embed** them in culturally legitimate institutions, incentives, and routines.

Here, **local wisdom** provides a vital, underused resource. Work in ecological governance shows that indigenous and local knowledge systems embody sophisticated practices for stewardship, intergenerational responsibility, and **relational ethics** [19]–[22]. UNESCO’s LINKS program documents how dialogic processes between knowledge holders and scientists produce more legitimate and effective decisions [23], [24]. Translating these insights to digital governance suggests that data and AI projects should co-design with communities, honor context-specific norms of consent and care, and cultivate *civic virtues* appropriate to place. In Geertz’s terms, policy must proceed from “thick description” of meaning-laden practices rather than thin abstractions [25].

A **capabilities** lens connects ethics to citizenship. Sen and Nussbaum argue that just institutions expand people’s real freedoms to do and be what they value [26], [27]. In Society 5.0, that implies platform and data architectures that enhance capabilities for learning, health, deliberation, and livelihoods—especially for marginalized groups. Cultural frameworks (e.g., Hofstede’s dimensions) caution that participation and authority are negotiated differently across societies [28]. Without sensitivity to these patterns, imported “best practices” may inadvertently erode civic trust. Conversely, when local norms of reciprocity and mutual aid are mobilized—e.g., through community data trusts or village-level digital commons—the result can be both ethically robust and civically empowering [5], [21], [29].

This paper advances three contributions. First, conceptually, it synthesizes Society 5.0 with civic culture and local wisdom

literatures to propose a **Relational Civic Tech** perspective: digital systems should be judged by how they sustain relationships of trust, accountability, and mutual flourishing in specific communities. Second, analytically, it distills cross-cutting ethical risks (bias, opacity, extractive data models) and maps them to context-aware design responses (participatory governance, value-sensitive requirements, capability outcomes) grounded in international guidance [11]–[16], [17]. Third, practically, it outlines a design and policy checklist for **ethical-cultural alignment** in education, public services, and local innovation ecosystems, with implications for universities and regional governments in Indonesia.

By re-defining **citizenship** as the capability to **co-create** with institutions and technologies—rather than merely to comply or consume—we align the human-centered promise of Society 5.0 with the plural ethical horizons of local cultures. This, we argue, is the path to **social transformation** that is technologically advanced *and* civically grounded.

II. LITERATURE REVIEW

A. Society 5.0

The concept of Society 5.0 was first introduced in Japan as a national vision for a human-centered super-smart society [1], [2]. Unlike Industry 4.0, which emphasizes automation and efficiency, Society 5.0 integrates physical and digital spaces to solve social challenges [3]. Scholars argue that Society 5.0 is not merely a technological framework but also a socio-cultural transformation that requires inclusive governance and ethical sensitivity [4]. Deguchi *et al.* emphasize that its success depends on balancing innovation with human dignity [5].

B. Digital Ethics

The rapid diffusion of artificial intelligence and big data has raised global concerns regarding ethics. Jobin, Ienca, and Vayena mapped 84 AI ethics guidelines and identified five converging principles: transparency, justice, non-maleficence, responsibility, and privacy [6]. Similarly, Floridi and Cowls propose a unified framework of beneficence, non-maleficence, autonomy, justice, and explicability [7]. However, Mittelstadt *et al.* caution that algorithmic systems often reproduce societal biases, raising urgent demands for ethical oversight [8]. In response, international institutions such as OECD, UNESCO, NIST, and IEEE have issued guiding principles to ensure responsible AI [9]–[12].



C. Local Wisdom

Local wisdom, understood as the collective knowledge, values, and practices rooted in communities, plays a crucial role in shaping sustainable social systems. Berkes notes that indigenous knowledge systems provide adaptive strategies for ecological and social resilience [13]. Geertz emphasizes that culture must be interpreted through “thick description” to understand the symbolic meanings embedded in practices [14]. UNESCO’s LINKS program demonstrates that incorporating local wisdom in global governance enriches ethical legitimacy and fosters inclusive decision-making [15], [16]. In Indonesia, local wisdom has been recognized as a foundation for community resilience and moral education, bridging modernity with tradition [17].

D. Civic Culture

The concept of civic culture was popularized by Almond and Verba, who argued that democratic stability relies on citizen participation, trust, and political efficacy [18]. Dahl further conceptualized democracy as *polyarchy*, highlighting the importance of inclusive institutions [19]. Habermas developed the idea of the public sphere as a communicative space essential for legitimacy [20]. In contemporary times, Putnam’s study of social capital underscores that civic engagement is built upon networks of trust and reciprocity [21]. With the rise of digital technology, civic culture is undergoing transformation: Castells points out that network society reconfigures civic participation and identity [22], while boyd highlights how youth in networked publics navigate privacy and power [23].

III. METHODOLOGY

This study employs a **qualitative-descriptive approach** with a literature-based method. The purpose of this methodology is to analyze, interpret, and synthesize scholarly perspectives related to Society 5.0, digital ethics, local wisdom, and civic culture. Rather than collecting empirical field data, the research relies on secondary sources, including peer-reviewed journal articles, books, international guidelines, and reports published by institutions such as OECD, UNESCO, IEEE, and NIST.

The procedure consists of three stages. First, **literature identification** was conducted using academic databases such as Scopus, SpringerLink, and Google Scholar to collect relevant studies published between 2000 and 2024. The selection criteria included works that explicitly address ethical issues in digital transformation, cultural adaptation, indigenous/local knowledge, and civic culture. Second,

content analysis was applied to examine key concepts, theoretical frameworks, and debates within the selected literature [30], [31]. Themes such as “ethical principles in AI,” “civic engagement in digital society,” and “the role of local wisdom in governance” were identified and categorized. Third, **synthesis and conceptualization** were carried out by integrating insights from the literature into a conceptual model that explains the intersection of local wisdom, civic culture, and ethical-cultural shifts in Society 5.0 [32].

The use of a literature-based qualitative method is justified because the study aims to construct a **conceptual framework** rather than measure variables quantitatively. This approach allows for the integration of global academic insights with local contextual values, offering both theoretical and practical contributions to discussions on social transformation in Society 5.0 [33], [34].

IV. DISCUSSION

A. Ethical Shifts in Society 5.0

The transition to Society 5.0 generates profound ethical implications. The increasing reliance on artificial intelligence (AI), automation, and big data raises dilemmas such as algorithmic bias, data privacy, surveillance, and digital inequality [11], [12]. Scholars warn that algorithmic decision-making may unintentionally perpetuate discrimination and social exclusion if not guided by transparent ethical frameworks [17]. Zuboff describes this trend as *surveillance capitalism*, in which personal data is commodified, potentially undermining civic autonomy [18]. The ethical challenge, therefore, lies not only in technological innovation but also in ensuring accountability, inclusivity, and fairness in its implementation.

B. Cultural Shifts in Society 5.0

Society 5.0 also triggers cultural transformations. Global digital connectivity creates hybrid cultural identities, where local traditions interact with global values [22]. Castells emphasizes that the “network society” reshapes how communities interact, communicate, and organize themselves [8]. Boyd’s research highlights how younger generations in networked publics negotiate identity, privacy, and power in culturally specific ways [23]. While such hybridization fosters openness and creativity, it also risks homogenizing cultural expressions and eroding traditional values [25]. These shifts require societies to critically balance modernization with cultural continuity.

C. The Role of Local Wisdom



Local wisdom serves as an ethical and cultural filter in the midst of rapid digital transformation. Berkes argues that indigenous knowledge systems embody sustainable practices and relational ethics that guide community resilience [19]. In Indonesia, local wisdom such as *gotong royong* reflects collective responsibility and social solidarity, which are essential in facing modern challenges [17]. UNESCO's LINKS program demonstrates that integrating local wisdom into global governance enhances legitimacy and inclusiveness [20]. By embedding local values into the design and governance of technology, societies can maintain cultural identity while embracing innovation.

D. The Role of Civic Culture

Civic culture is crucial in redefining citizenship within Society 5.0. Almond and Verba stressed that democratic stability depends on civic trust, political efficacy, and participation [4]. Putnam later expanded this idea through the concept of social capital, emphasizing networks of reciprocity and cooperation [21]. In the digital era, civic culture must adapt to new forms of engagement mediated by online platforms. Habermas's concept of the public sphere provides a framework for deliberative democracy that can be extended to digital contexts [20]. By fostering civic responsibility and ethical digital participation, societies can strengthen democratic values while navigating technological change.

E. Synthesis

The integration of local wisdom and civic culture offers a conceptual model for ethical and cultural sustainability in Society 5.0. Local wisdom ensures that societal values remain grounded in tradition and moral responsibility, while civic culture fosters democratic engagement and inclusivity in the digital public sphere. Together, they provide a balanced framework to address ethical dilemmas and cultural transformations, enabling a socially just and sustainable Society 5.0.

V. CONCLUSION

The transformation toward Society 5.0 is not only a technological revolution but also an ethical and cultural shift that redefines the meaning of citizenship. This paper highlights that while digital technologies bring efficiency and global connectivity, they also raise ethical dilemmas and cultural challenges. To address these complexities, the integration of local wisdom and civic culture offers a conceptual framework that balances innovation with moral responsibility and cultural continuity. Local wisdom provides

ethical guidelines rooted in community traditions, while civic culture strengthens democratic participation and social cohesion in digital spaces. Together, they ensure that Society 5.0 becomes a platform for inclusive, just, and sustainable social transformation.

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