Indonesian Journal of Early Childhood Education Studies (IJECES)
Volume 14, Number 1, June 2025, Pages 35-53
e-ISSN: 2476-9584 (Online), p-ISSN: 2252-8415 (Print)

Developing Early Childhood Character in The Digital Era: Transition from Society 5.0 to Society 6.0

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DOI: https://doi.org/10.15294/ijeces.v14i1.23698
Submitted: 18/04/2025 **Revised:** 18/06/2025 **Accepted:** 19/06/2025

ABSTRACT
The transition from Society 5.0 to Society 6.0 presents significant challenges and opportunities in shaping early childhood character. This article aims to explore how technological evolution, particularly artificial intelligence, the Internet of Things, and robotics, influences the values education of young children. Using a qualitative literature review with an analytical-descriptive approach, this study analyzed open-access sources from 2019 to 2024, complemented by key foundational theories. The findings highlight the need for a holistic strategy involving schools, families, communities, government, and industry in shaping future-ready character. Key thematic areas include digital literacy, ethical technology use, emotional intelligence, and collaborative synergy across sectors. The study proposes a conceptual framework that integrates human values with digital advancements to support sustainable, inclusive character development in early childhood. These insights are expected to serve as a foundation for policy, curriculum, and innovation in early childhood education in the Society 6.0 era.

Keywords: Early Childhood Character, Digital Era, Society 5.0, Society 6.0

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1. INTRODUCTION

Over the past few decades, the world has undergone a profound transformation, reshaping how people live, work, and connect. The integration of artificial intelligence (AI), digital systems, and automation has redefined not only industry but also the social fabric of everyday life (Helbing, 2018; Situngkir, 2015). One milestone in this transformation is Society 5.0, a vision where technology enhances both economic performance and human-centered development (Situngkir, 2015). This is now evolving into a more holistic vision: Society 6.0, which places greater emphasis on sustainability, psychological well-being, and environmental balance (Kim et al., 2024; Žižek et al., 2021).

While Society 5.0 focuses on harmonizing technology with human needs (Angurala & Khullar, 2024; Potočan et al., 2021), Society 6.0 builds upon that foundation by aiming for a resilient and just society driven by ethical innovation (Das & Pan, 2022; Faresta et al., 2025). This shift raises a fundamental educational question: how can we ensure that young children grow into future citizens who are not only technologically competent but also ethically responsible and socially conscious?

This article does not reiterate commonly explored aspects of character education, such as developmental stages or moral values during early childhood (Pires Pereira et al., 2023). Instead, it focuses on how emerging technologies influence the formation of character in young learners. The acceleration of digital innovation compels us to reimagine pedagogical approaches that do not treat ethics and technology as separate spheres (Dostál et al., 2017).

Educators and parents now face several real-world challenges. Many early childhood teachers still lack adequate digital fluency, making it difficult to integrate meaningful technology use into moral instruction (Windasari & Dheasari, 2024). At home, some parents remain unsure about how to supervise screen time while fostering values like empathy or discipline (Kurdi, 2023). Moreover, access to infrastructure, digital devices, and ethical content remains uneven, further complicating equitable character development in technologically mediated environments.

Furthermore, the role of adult guidance, both at home and in educational settings, remains central. A shift in mindset among adults is critical, turning technology from a source of anxiety into a tool of empowerment (Saleh, 2024; Windasari & Dheasari, 2024). Through integrated efforts by schools, families, communities, and policy systems, a synergistic character education model can emerge, one that prepares children not just for tomorrow's economy, but for humanity's long-term well-being.

The interplay between children's character formation and technology requires early childhood educators to cultivate digital ethics alongside traditional moral values. In the context of Society 6.0, digital citizenship becomes a foundational component of early education. Lauricella (2020) emphasizes that values such as responsibility, honesty, and empathy must now be instilled not only in physical interactions but also in virtual environments. As children engage more frequently with AI-powered platforms, online games, and multimedia learning tools, the urgency of embedding moral reasoning within these digital experiences becomes increasingly evident.

In response to these shifts, emerging innovations in early childhood education have begun to integrate character learning into gamified, interactive digital platforms. Beck et al (2021) found that digital storytelling apps with moral dilemmas can foster reflective thinking and strengthen moral awareness in preschool-aged children. Walker et al (2023) demonstrate that social robots equipped with facial recognition and emotional feedback capabilities are effective in nurturing empathy and regulating behavior in young learners. These technologies serve as cognitive and emotional mirrors,

allowing children to evaluate their actions while reinforcing prosocial norms in a safe, engaging environment.

Nonetheless, the implementation of digital character education must remain sensitive to local cultural contexts. In the Indonesian setting, communal values such as *gotong royong* (mutual cooperation) and *rasa hormat* (respect for elders) are integral to character formation. Suratmi et al (2024) argue that integrating these values into digital content is vital to ensure relevance and cultural sustainability. Therefore, technological tools in education should not simply replicate global innovations but be designed to reflect and reinforce the moral traditions embedded in local practices and philosophies.

To respond to this, the present study explores how AI, robotics, and smart platforms can function not only as teaching tools but also as *moral co-facilitators*. Technologies like adaptive learning agents or emotion-recognizing robots offer opportunities to personalize moral learning, promote reflective thinking, and model prosocial behavior from early childhood (Khader, 2024; Kurniawati & Sutharjana, 2023). These innovations highlight the potential of ethical technologies in shaping emotional intelligence and value-based habits.

2. METHOD

This study is grounded in a qualitative literature review with an analytical-descriptive orientation, designed to navigate the growing intersection between early childhood character education and technological transformation during the transition from Society 5.0 to Society 6.0. The choice of this method is not incidental but stems from a critical reflection: as researchers and educators, we are increasingly confronted by the urgency to understand not only what is changing in the educational landscape, but how and why these changes matter for the moral development of future generations.

Rather than relying solely on traditional empirical fieldwork, this study adopts a conceptual analysis approach anchored in scholarly dialogue, with the aim of synthesizing key themes, identifying gaps, and proposing forward-thinking strategies. This approach is especially suitable for a topic as emerging and cross-disciplinary as this, where philosophical underpinnings and practical applications are inextricably linked.

Literature was selected based on its relevance to the research theme and its publication in peer-reviewed or indexed academic journals between 2019 and 2024. Additional criteria included accessibility through open-access platforms and alignment with one or more focus areas such as educational technology, moral development, or digital pedagogy in early childhood. For instance, it has been examined how pedagogical agents, AI-driven animated characters, can support moral learning through social interaction cues, helping children internalize ethical behaviors in technology-supported environments (Dai et al., 2022)**.**

Approximately 95% of the sources analyzed were published within the last five years, ensuring relevance to current and anticipated trends in digital education, character building, and technological ethics. At the same time, foundational works were selectively retained to provide continuity of thought, particularly in areas such as developmental psychology and character theory.

The literature review process followed a structured analytical sequence (see Figure 1), consisting of five interlinked stages:

1. **Identification** – Formulating guiding questions centered on character education within the contexts of digital and post-digital society;
2. **Selection** – Applying purposive sampling to obtain relevant literature from open-access repositories such as DOAJ, Google Scholar, and ERIC;
3. **Screening** – Enforcing inclusion criteria focused primarily on peer-reviewed journals, policy documents, and major conference proceedings published between 2019 and 2024, while selectively incorporating seminal works from earlier years where foundational theories or historical context were indispensable;
4. **Thematic Analysis** – Clustering content into conceptual themes such as AI in education, robotics for moral learning, digital parenting, and Society 6.0 frameworks;
5. **Synthesis** – Integrating key findings to produce interpretive conclusions that connect empirical insights with philosophical foundations and systemic transformation.

This layered approach moves beyond simple summarization by offering a critical recontextualization of existing data. Consequently, the review contributes not only a comprehensive overview of current discourse, but also actionable propositions for reimagining early childhood character development amid rapidly evolving digital futures.

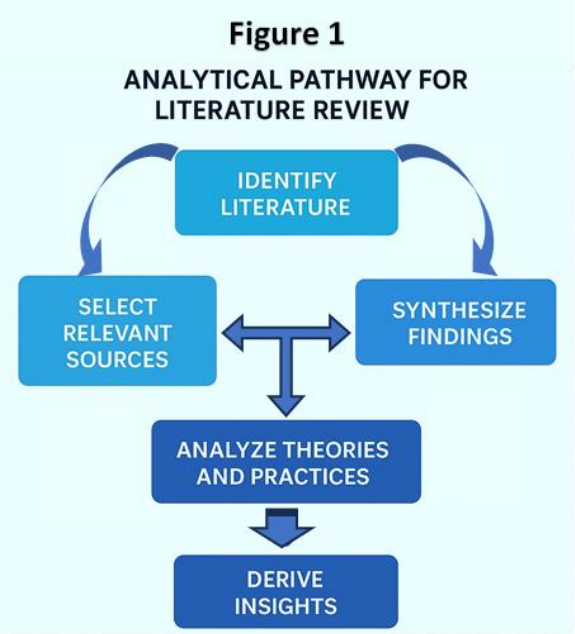

Figure 1. Analytical Pathway for Literature Review

This methodological design is intended to ensure academic rigor, contextual relevance, and conceptual clarity, fitting the interdisciplinary nature of early childhood character education in the digital age.

3. RESULTS AND DISCUSSION

Based on the literature review and analytical approach outlined in the previous section, this study identified several key themes that characterize the evolving landscape of early childhood character education in the context of Society 5.0 and the envisioned Society 6.0. These themes reflect how emerging technologies, social dynamics, and educational philosophies intersect in shaping children's moral development. The following discussion elaborates on these thematic findings,

organized into sub-sections to highlight the core elements influencing character education today and in the near future.

Integrating Technology Into Children's Character Education

Digital transformation has introduced various opportunities in children's character education, particularly by using technologies such as artificial intelligence (AI), the Internet of Things (IoT), and big data analytics. This technology enables more interactive and adaptive learning methods, providing meaningful learning experiences through approaches specifically designed to meet the needs of each child.

1. Artificial Intelligence (AI) In Character Education

AI has been widely adopted in education to enhance children's learning experiences. Studies indicate that AI-based applications, including simulation-based interactions and educational games, can foster the development of moral values in children (Holmes et al., 2019). One of the most effective ways to achieve this is by using pedagogical animation characters (commonly known as pedagogical agents) (Dai et al., 2022), which are virtual characters designed to guide and support learners throughout the learning process. These pedagogical agents are not merely digital tools; they are intentionally created to generate a sense of social presence, allowing children to experience interaction in ways that resemble real social exchanges (Suci & Martha, 2019).

In multimedia learning environments, the social cues embedded within pedagogical agents, such as gestures, facial expressions, and conversational language, encourage learners to respond using human-like social interaction patterns. This engagement goes beyond capturing attention; it supports deeper cognitive processing and helps children integrate new knowledge with their prior experiences. In turn, these interactions can nurture empathy, social responsibility, and ethical awareness from an early age.

The social agency theory highlights that the presence of social cues in multimedia messages can activate learners' social conversational schemas. This activation leads learners to perceive the learning environment as a social interaction, prompting them to apply social norms and behaviors typically reserved for human-to-human communication (Dai et al., 2022).

Dai et al. (2022) emphasize that point by referring to (Schroeder et al., 2013), explaining that learners tend to treat computers and pedagogical agents as social partners when these agents exhibit human-like characteristics and interactive behaviors. Consequently, the perceived social presence of pedagogical agents plays a crucial role in fostering engagement and enhancing the learning experience (Dai et al., 2022).

Beyond fostering social and moral development, AI can also be leveraged to tailor character-based curricula according to individual children's needs. By analyzing real-time data, AI-driven systems can recommend instructional strategies that align with children's personalities and behavioral patterns. Studies indicate that adaptive learning technologies utilize learner modeling, considering factors such as cognitive abilities, affective states, personality traits, and learning styles, to personalize educational content (Zawacki-Richter et al., 2019). For example, children with extroverted tendencies may benefit from collaborative learning tasks that encourage peer interaction, whereas those who display strong curiosity and independence might excel in problem-solving challenges that promote self-directed exploration. Conversely, children with more cautious or introverted behavior may require structured guidance and repetitive reinforcement to build confidence in social engagement. AI-based personalization ensures that learning experiences are not

only effective but also resonate with each child's unique developmental profile, ultimately supporting a well-rounded character education.

2. IoT and Smart Devices for Character Monitoring

The Internet of Things (IoT) has been increasingly adopted in education to improve monitoring and instructional effectiveness. Wearable devices and IoT-based smart tools are now capable of collecting behavioral and physiological data on children, such as activity patterns, emotional states, sleep quality, and vital signs, which are processed and analyzed in real time. Wearable devices are smart electronic gadgets designed to be worn on the user's body, either as accessories, attached to the skin, or even embedded into clothing, such as smartwatches, fitness trackers, or smart glasses. These devices are equipped with sensors and computing technology that enable the collection, monitoring, and exchange of data in real time (Chu et al., 2023) (Glasserman-Morales et al., 2023). The resulting information is then delivered to parents and educators through dedicated applications, enabling them to monitor children's well-being, identify irregularities, and provide timely support that contributes to their overall personal and character development (Heng & Kamsin, 2021).

Furthermore, research shows that real-time behavioral monitoring systems equipped with artificial intelligence help educators adapt classroom strategies based on students' emotional states and learning needs, a model that can likewise be applied by parents to refine parenting strategies for more effective character-building (Li et al., 2023).

3. Big Data in Analyzing Character Development

In line with the previous discussion on technological advances, big data holds significant potential in the field of education by enabling the analysis of learners' behavioral patterns through data collected from their digital activities. Supported by machine-learning algorithms and learning analytics, this wealth of data can be transformed into actionable insights, allowing educators (and by extension, parents) to identify learning gaps, monitor behavioral tendencies, and receive tailored recommendations that foster not only academic achievement but also the development of character and personal growth (Greller & Drachsler, 2012).

What Greller and Drachsler (2012) wrote above emphasizes how data analytics can be used to identify changes in children's behavioral patterns, including aspects such as social awareness, ethical behavior, and cooperation in technology-based learning environments.

4. Challenges and Solutions in Integrating Technology for Character Education

Despite the benefits of technology in character education, several challenges must be addressed along with actionable strategies:

a. How to enhance digital literacy for parents and educators to effectively guide children's technology use (Blum-Ross, 2020).

   This can be addressed by organizing continuous digital literacy training programs and workshops for parents and educators, integrating digital literacy modules into teacher professional development curricula, and creating accessible, practical guides or online resources that help adults understand current technologies, online risks, and appropriate digital behavior guidance strategies for children.

b. How to ensure clear rules and strong protections for children's privacy in digital learning, with an emphasis on designing these technologies to respect privacy and ethical principles (Stoilova et al., 2019).

   To overcome this challenge, it is crucial to implement strict regulatory frameworks requiring technology developers and educational platforms to adopt privacy-by-design and ethics-by-

design principles. Schools and educational institutions should also establish clear privacy policies, conduct regular digital safety audits, and educate children, parents, and teachers on digital rights and safe data practices.

c. How to address excessive and problematic use of mobile devices, which can interfere with children's daily functioning and potentially impact their social and emotional development, through the development of appropriate measurement tools and targeted interventions (Domoff et al., 2019).

Strategies to tackle this include developing and utilizing validated tools to monitor screen time and behavioral patterns, designing technology usage guidelines at home and in schools, incorporating digital well-being education into the curriculum, and promoting balanced activities that foster offline social interaction, physical activity, and mindful technology use. Additionally, parents and educators should model healthy device use and encourage reflective conversations about digital habits.

The Role Of Parents And Educators In Digital Literacy

As digital technology becomes increasingly integrated into children's learning environments, it is essential that both parents and educators develop sufficient digital literacy. This goes beyond mastering technical skills; it also includes critical thinking, ethical understanding, and the ability to guide children in using technology responsibly. The role of parents and educators is not merely to oversee children's use of digital tools, but to actively support their learning, helping them make sense of both the opportunities and the challenges that technology brings (Nurfazri et al., 2024).

1. Why parents and educators must understand digital literacy before guiding children.

Parents and educators who lack sufficient digital literacy may either place excessive restrictions on children's use of technology or fail to offer meaningful guidance (Balakrishnan & Charania, 2023) (Windasari & Dheasari, 2024). By contrast, adults who have strong digital competencies, including media and information literacy, critical evaluation skills, and an understanding of responsible online behavior, are better positioned to help children build digital resilience, encourage ethical participation in digital environments, and foster critical thinking regarding the content they encounter (Choi et al., 2017) (Haryanto et al., 2022).

2. Strategies for accompanying children in responsible technology use

Some practical ways to support children in using technology responsibly include setting clear and reasonable screen time boundaries, spending time using digital media together to learn and explore, having open conversations about appropriate online behavior, and encouraging children to think critically about the information they encounter. These approaches are strengthened by the involvement of adults who consciously design and guide children's digital experiences, combining supervision, open dialogue, and active participation to foster autonomy, responsibility, and critical thinking (Pires Pereira et al., 2023). Additionally, schools should involve parents in digital literacy initiatives through workshops and collaborative projects.

3. Case study of successful digital literacy implementation in early childhood education

Recent studies have highlighted successful examples in early childhood education where digital literacy is integrated into classroom activities through collaborative projects, digital storytelling, and exploratory learning guided by teachers (O'Byrne et al., 2018) (Al-Abdullatif, 2022). These approaches have been shown to enhance children's digital skills while also fostering

cooperation, problem-solving abilities, and reflective thinking — all of which are crucial elements in character development in the digital age (Pires Pereira et al., 2023).

Mindset Of Parents And Educators In Facing The Digital Era

The presence of technology in children's daily lives is inevitable in the digital age, especially as educational environments continue to integrate digital platforms, artificial intelligence, and the Internet of Things (IoT). While technological tools can serve as powerful supports in shaping children's learning experiences and character, the mindset of the adults who guide them (especially, parents and educators) plays a pivotal role, and without a growth-oriented, open, and adaptive mindset, technology may either be resisted, misused, or poorly guided, ultimately undermining character development efforts (Muthmainnah, 2024).

Research shows that educators with higher digital competence and an adaptive approach are more effective in integrating technology in meaningful ways, while those who resist or lack digital confidence may struggle to provide proper guidance (Ottestad et al., 2014) (Haryanto et al., 2022) (Windasari & Dheasari, 2024). Therefore, parents and teachers must cultivate a mindset that embraces continuous learning, critical awareness of digital risks, and a balanced approach to technology use.

1. The impact of parents' mindset on character building in the digital era

Parents' mindset in the digital era shapes children's character development. A balanced approach, in the sense of guiding, discussing, and supervising digital use, fosters strong values, while overly restrictive or permissive parenting can hinder growth (Muthmainnah, 2024). Parents who see technology as an educational tool encourage responsibility and ethical awareness, while those who treat it as mere entertainment risk reinforcing passive consumption. A positive mindset helps children navigate cyber risks, misinformation, and online peer pressure.

Engaging in open discussions on digital ethics and responsible usage equips children with decision-making skills and resilience. Ultimately, character building in the digital age requires not just rules but fostering adaptability, accountability, and strong moral foundations in children (Aisyah Nur'Aini & Minsih, 2022).

2. Educators' mindset and its influence on students in the digital era

Educators' mindsets significantly shape students' learning experiences in the digital era. Teachers with a growth mindset are more likely to embrace digital educational aids, fostering student engagement and adaptability. Conversely, a fixed mindset can hinder the integration of technology, limiting students' opportunities for interactive and personalized learning. The study emphasizes the need for professional development and institutional support to help educators adopt a positive attitude toward digital tools, ultimately enhancing student outcomes in an increasingly technology-driven world (Alotaibi, 2023).

Opportunities And Challenges Of Robot-Assisted Learning In Early Childhood Education

The development of robotics technology has brought significant changes to various aspects of life, including early childhood education. Robots are no longer limited to industrial or research applications but are increasingly being integrated into learning environments to help children develop cognitive, social, and emotional skills (Barragán-Sánchez et al., 2023). In the context of early childhood education, the use of robots as learning tools has become more common, providing a more interactive and engaging learning experience. Robotics not only supports academic processes but

also plays a role in shaping children's character and ethics through structured and innovative interactions (Di Lieto et al., 2020). However, like any other technology, the use of robots in education comes with both advantages and challenges that must be carefully considered.

1. Robots: Not True Companions, but Educational Tools

Although robots cannot be true companions, their presence can help children practice positive attitudes and develop sound thinking skills in a structured environment, contributing to their moral development (Constantinescu et al., 2022). In the context of primary education, the introduction of social robots also raises various ethical considerations that need to be analyzed from the perspectives of educational stakeholders, such as teachers, parents, and policymakers, to ensure that their use remains aligned with educational values (Singh et al., 2023).

Overall, when implemented with the right approach, social robots can serve as valuable educational tools that enable children to develop appropriate interaction and behavioral skills more effectively in an innovative learning environment (Smakman et al., 2021). Nevertheless, as we explore their benefits, we must also critically examine the challenges they pose to ensure they complement rather than hinder early childhood development, as follows (Salma et al., 2025):

a. Reduced Human Interaction. Excessive reliance on robots may lead to a decline in direct human interaction, which is crucial for developing social skills. While robots can facilitate structured conversations, they cannot fully replicate the complexity and depth of human communication, potentially limiting children's ability to navigate real-world social situations effectively.
b. Limited Emotional Connection. Children may struggle to form genuine emotional bonds with robots compared to their real caregivers or teachers, who are, in fact, human, potentially affecting their emotional development. The lack of emotional reciprocity (which naturally involves feelings) may hinder the development of empathy and emotional intelligence, both of which are essential for healthy interpersonal relationships.
c. Over-Reliance on Technology. If children become too dependent on robots for learning, they may face difficulties in adapting to traditional learning environments that require independent thinking and human communication. This over-reliance could also hinder the development of critical thinking processes and problem-solving skills, that are essential in real life.
d. Ethical and Privacy Issues. The use of robots in early childhood education raises concerns about data privacy and ethical considerations, especially regarding how children's personal information is collected and used. Therefore, it is crucial to maintain data management and ethical guidelines for robotic interactions is crucial to safeguarding children's privacy and well-being.
e. Lack of Creativity and Critical Thinking. Some argue that the use of robot in learning might limit children's opportunities for imaginative play and creative problem-solving, as robots tend to operate based on pre-programmed instructions. Therefore, it is important to prioritize providing space for free exploration and fostering children's curiosity, ensuring that technology serves as a complement rather than a replacement in traditional learning experiences.

2. Case Studies on the Successful Use of Robots in Character Education for Children

Several countries have successfully utilized robots as tools in children's character education by integrating technology into education in a balanced and structured manner, such as:

a. Japan: Teaching Empathy and Courtesy.
   Japan has long been recognized as a pioneer in the development of social robots. In various schools, robots like *Pepper* are used to teach children empathy and social skills. Designed to recognize facial expressions and respond to emotions, "*Pepper*" helps children understand others'

feelings and learn how to interact with politeness—values that are highly regarded in Japanese culture (Western Michigan University, 2017).

b. South Korea: Developing Communication, Socio-Emotional Skills, Artistic Expression, and Creativity.
In South Korea, robots are used to guide children in learning experiences that support social, emotional, and creative development. One example is "*Alpha Mini*," which has been integrated as a learning aid for kindergarten students. This robot possesses various capabilities, such as dancing, singing, storytelling, and even teaching children basic kung fu movements, enriching their learning experiences (The Straits Times, 2021) (Day Nurseries, 2023).

c. Finland: Promoting collaboration and openness.
Finland, known for its innovative education system, has integrated *Elias Robot* into language learning. This robot helps children enhance their linguistic skills and readiness to communicate in a second language. Studies indicate that interaction with *Elias Robot* can create a more supportive and motivating learning environment, potentially fostering inclusivity and openness to differences in the learning process (Kantola, 2023).

d. United States: Encouraging Critical Thinking and Problem-Solving.
In the United States, robotics is increasingly being used in early education to help children develop critical thinking and problem-solving skills. Teachers are incorporating robots into Science, Technology, Engineering, and Mathematics (STEM) lessons, allowing young learners to engage in hands-on activities, where they actively participate in practical tasks rather than just listening to lectures or reading about a topic. These interactive experiences strengthen their logical reasoning and creativity. By interacting with robots, children learn to analyze problems, experiment with solutions, and collaborate with their peers (other students in the same learning environment). This approach not only builds their technical skills but also nurtures curiosity and resilience, which are important traits for lifelong learning. Studies show that integrating robotics into early education helps students become more engaged and confident in tackling challenges (Yuan et al., 2019).

The success of these countries in integrating robots into children's character education demonstrates that technology, when applied with the right approach, can be an effective tool in shaping positive values in children. However, balance remains essential, as robots are not meant to replace human interaction but rather to complement and enrich children's learning experiences in an increasingly digital world.

Society 6.0 And A New Vision For Children's Character Education

The evolution of human society has undergone various stages, from the agrarian era to the digital age. The concept of Society 6.0 has emerged in response to the need for a harmonious integration of smart technologies, sustainable social responsibility, and holistic human well-being (Žižek et al., 2021). In the context of children's character education, Society 6.0 offers an approach that emphasizes the balance between technological advancement and the development of moral and social values.

1. The Concept of Society 6.0 and Its Distinction from Society 5.0

Society 5.0, introduced by the Japanese government, focuses on the utilization of smart technologies such as the Internet of Things (IoT), artificial intelligence (AI), and robotics to enhance the quality of human life (Cabinet Office, 2016). Its primary goal is to create a human-centered society where advanced technologies are seamlessly integrated into daily life, addressing social

challenges such as the rapidly increasing elderly population compared to the younger age groups, due to rising life expectancy and declining birth rates (Sato, 2019).

In contrast, Society 6.0 takes this vision further by incorporating a deeper focus on holistic well-being and social responsibility. It emphasizes the importance of balancing technological progress with humanistic values, aiming to create a society that is not only technologically advanced but also just, inclusive, and sustainable (Žižek et al., 2021).

2. Integrating Social Sustainability, Holistic Well-being, and Technology in Character Education

Character education in the era of Society 6.0 demands an integration of technology, sustainable social responsibility, and holistic well-being. Technology can serve as a tool to support the teaching of moral and ethical values, as well as to facilitate more interactive and personalized learning. However, it is crucial to ensure that the use of technology does not sideline the social and emotional dimensions of education.

Social sustainability in character education involves instilling values such as empathy, cooperation, and a deeper sense of social commitment and responsibility. Effective character education should teach children to understand and appreciate diversity and to contribute positively to society (Shinta et al., 2024).

Holistic well-being encompasses physical, mental, and emotional health. Character education must address all these aspects to ensure that children grow not only intellectually but also emotionally and socially. This is essential in shaping well-rounded individuals capable of navigating future challenges.

3. Implications of Society 6.0 for the Future of Early Childhood Education

The implementation of the Society 6.0 concept in early childhood education carries several key implications. First, educational curricula must be thoughtfully designed to integrate technology in a balanced way, ensuring that it serves as a supportive tool for learning rather than replacing human interaction ((NAEYC); & Media, 2012). Second, character education should emphasize the development of social and emotional skills such as empathy, communication, and collaboration. These skills are vital in helping children adapt to an increasingly connected and ever-evolving digital society (Ho & Funk, 2018). Third, it is essential to create a learning environment that nurtures children's holistic well-being, including their physical, mental, and emotional health. This can be achieved through child-centered learning approaches that take into account their individual needs and interests (American University School of Education, 2020).

To sum up, Society 6.0 presents a new vision for children’s character education—one that highlights the importance of balancing technological progress with social sustainability and holistic well-being. By applying this concept to early childhood education, it is hoped that future generations will emerge not only intellectually capable but also equipped with strong character and the ability to contribute meaningfully to society.

Strategies For Children's Character Education Towards Society 6.0 Era

As we enter the Society 6.0 era, strengthening children's character education becomes an urgent and strategic necessity to build a future generation that excels not only in mastering technology but also in integrity, adaptability, and a long-term vision to enhance the well-being of present and future generations. This includes environmental, social, cultural, and economic dimensions. This era demands a harmonious integration across all sectors of life to create an inclusive

and prosperous society. Therefore, character education must be developed through a holistic approach that actively involves schools, families, communities, the government, and the industrial sector. This cross-sector collaboration will ensure that children build a strong foundation of values, develop critical thinking skills, and are well-prepared to face global challenges in an ethical and responsible manner.

In order to contextualize these strategies, it is necessary to first examine the philosophical and structural distinctions between Society 5.0 and Society 6.0. Each reflects a different approach to how technology interacts with education, ethics, and the formation of character in children.

Figure 2 presents a visual comparison between Society 5.0 and Society 6.0 in the context of early childhood character education. This comparison highlights the growing emphasis on emotional well-being, social sustainability, and ethical responsibility, dimensions that must be strategically addressed in any forward-thinking educational model.

Figure 2
Conceptual comparison of Society 5.0 and Society 6.0 in relation to character education priorities for young children.

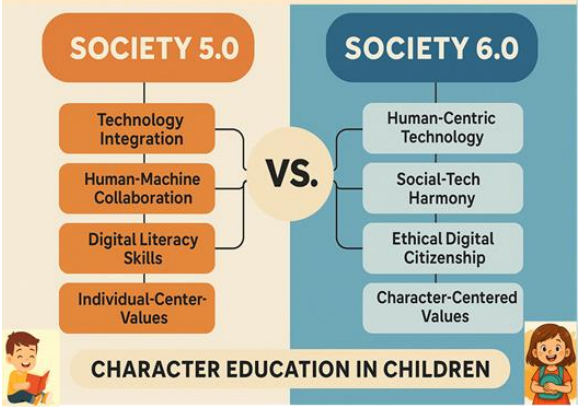

Figure 2. Conceptual Comparison of Society 5.0 and Society 6.0

1. Steps for Schools, Parents, and Communities in Building Technology and Sustainability-Based Children's Character

Building children's character for the Society 6.0 era requires the active involvement of schools, parents, and communities. Collaboration among these three pillars is essential, fundamental, and strategic in supporting children's character education (Saputri et al., 2024). Schools should design learning experiences that go beyond academic achievements, integrating technology wisely as a learning tool that fosters positive interactions and children's creativity. Parents can serve as role models by demonstrating how to use technology for the greater good, while instilling values of empathy, responsibility, and social awareness in everyday life. Meanwhile, communities play a role in creating an ecosystem that supports character development through inclusive and sustainability-oriented social activities, so that children grow up in an environment that nurtures a sense of responsibility toward themselves, others, and nature. All of these form part of holistic character education (American University School of Education, 2020).

2. Policy Recommendations for Character Education in Facing Society 6.0

In facing the Society 6.0 era, character education policies must emphasize the integration of technology, human values, and global sustainability, which is an effort to balance current human needs with the preservation of the planet for future generations on a global scale (Baltrusaitis et al.,

2024). Governments should promote the development of a national curriculum that combines character building with digital literacy and ecological awareness, where students at all levels, including early childhood, are made aware of the interconnectedness between humans and nature. This includes fostering empathy for the environment through simple actions such as proper waste disposal, energy conservation, understanding recycling, and tree planting (Sehar et al., 2024) (Taufik et al., 2024). Additionally, training educators in the ethical and effective use of technology should be a priority. Policies should also encourage partnerships between schools and communities to enrich children's learning experiences beyond formal classrooms. Through these steps, character education becomes not only the responsibility of schools but also an integral part of national human development policies (Ho & Funk, 2018).

3. Preventing the Brilliant Jerk Phenomenon Through Character Education

In the transitional era from Society 5.0 to Society 6.0, the cultivation of character education for early childhood must not be seen as an isolated effort limited to the foundational stages of learning. Rather, it requires a continuous and integrated approach that extends throughout all levels of education, from primary and secondary schools to higher education institutions. This holistic system ensures the formation of individuals who are not only technologically skilled but also morally grounded, socially responsible, and capable of harmonious coexistence with others.

Current research emphasizes that character education at an early age plays a vital role in developing children's moral compass, respect for diversity, environmental stewardship, collaboration skills, creativity, perseverance, and a positive outlook on the future (Lickona, 2022). However, stopping this development at early childhood education risks producing individuals who, despite their technical brilliance, lack essential social and emotional competencies.

This gap can lead to the emergence of so-called "brilliant jerks" — highly intelligent and technically proficient individuals who, unfortunately, display arrogance, disregard for teamwork, and disrespect towards colleagues (Nisen, 2014) (Chamorro-Premuzic, 2023). Studies highlight that such personalities often undermine organizational culture, reducing team morale and productivity (Mitchell et al., 2024) (Jethmalani, 2023).

To prevent this, character education must be sustained beyond early childhood. It should be reinforced continuously through a national education framework that integrates moral and ethical training with technological learning. A comprehensive education project, initiated or facilitated by the government, is essential to instill values that counteract narcissistic and egocentric tendencies in future leaders and innovators.

By embedding character education across all educational stages, nations can cultivate not only smart and skilled citizens but also individuals who respect others, value collaboration, and contribute positively to societal advancement. This integrated approach is pivotal for successfully transitioning into Society 6.0, where human-centric values harmonize with rapid technological progress.

4. Synergy between Government, Educational Institutions, Communities, and Industry in Shaping a Generation of Character in the Society 6.0 Era

Collaboration among the government, early childhood education (ECE) institutions, communities, and the industrial sector is crucial in shaping children's character from an early age (Megawati & Prahmana, 2024). The government can play a role by formulating policies that support the integration of character education into the ECE curriculum and by providing adequate supporting facilities, especially for safe and child-friendly technology-based learning. Educational institutions are responsible for instilling core values such as curiosity, responsibility, care for others and the

environment, and the wise use of technology through engaging learning methods. Meanwhile, the industrial sector can contribute by providing interactive digital educational media, implementing Corporate Social Responsibility (CSR) programs focused on strengthening children's character, and partnering with schools to introduce children to innovation positively from an early age (Azhar & Azman, 2021). This synergy creates a strong foundation for children to grow into individuals who are not only digitally literate but also possess noble character traits to face the challenges of the Society 6.0 era.

The conceptual synergy described above can be more clearly understood through an integrative model that illustrates the collaborative dynamics among the key stakeholders. Figure 3 presents a holistic framework that positions the government, educational institutions, communities, and industry as interconnected agents working collectively to foster character education aligned with the values and demands of Society 6.0.

This model underscores the necessity of shared responsibility and continuous interaction between sectors to ensure that character development in early childhood is not merely incidental, but strategically embedded within the broader vision of human-centered, sustainable societal progress.

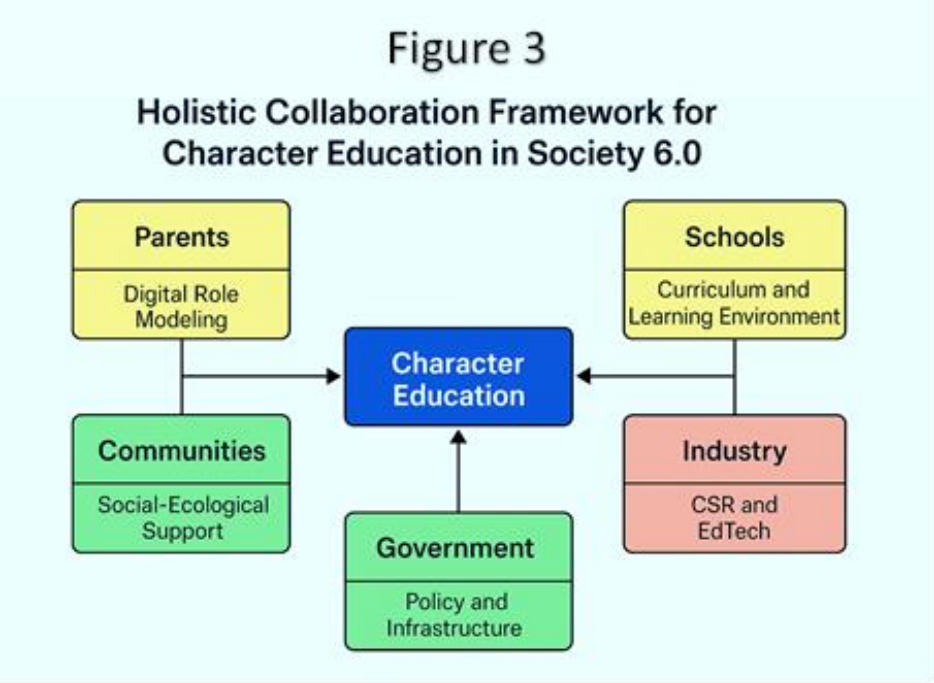

Figure 3. Holistic Collaboration Framework

4. CONCLUSION

In the era of transition from Society 5.0 to Society 6.0, character education emerges as an essential pillar for preparing future generations to navigate increasingly complex social and technological landscapes. The integration of values such as adaptability, empathy, responsibility, and collaboration is crucial in shaping individuals who can respond ethically and effectively to the demands of the digital age.

This study has demonstrated how emerging technologies, particularly AI, robotics, and smart platforms, can be strategically utilized to support moral development in early childhood. By

synthesizing current literature, the study affirms that early character formation must be designed in parallel with technological fluency and ethical awareness, supported through cross-sector collaboration among schools, families, communities, and policymakers.

Importantly, the long-term impact of character education extends beyond individual behavior. It lays the foundation for social resilience, cultivates critical moral agency in a technology-driven world, and ensures that future innovation remains human-centered. As children grow into innovators, leaders, and digital citizens, early moral grounding equips them not only to thrive—but to guide technological progress toward inclusive, sustainable futures. Ultimately, strengthening character education from the earliest stages of life is a proactive investment in shaping a dignified, cooperative, and values-driven civilization—hallmarks of Society 6.0.

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