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## Future Education: Educational Transformation in the Society 5.0 Era to Prepare Generation Alpha and Beta with Meaningful Life Skills

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# Future Education: Educational Transformation in the Society 5.0 Era to Prepare Generation Alpha and Beta with Meaningful Life Skills

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## Abstract

Technological advances in artificial intelligence and automation require individuals to have skills beyond academic abilities. Thus, in the Society 5.0 era, educational transformation is urgently needed to prepare the alpha and beta generations to face the challenges of increasingly complex changes. Referring to these problems, the study aims to identify and analyze educational transformations appropriate for equipping the alpha and beta generations with meaningful life skills. This study used the Systematic Literature Review method according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) stages. Data were collected from research results published in scientific journals accredited by Sinta or indexed by Scopus and Web of Science. Data was collected using the help of the Google search engine from trusted journal portals (ScienceDirect, NCBI, and Publon). Furthermore, the collected data was analyzed using thematic analysis techniques. The study results indicate that the education system must shift to a more flexible and real-experience-based approach. In addition, the integration of AI technology and adaptive learning needs to be done to increase the effectiveness of education in forming individuals who are ready to face the dynamic world of work. Furthermore, education in the Society 5.0 era no longer focuses on preparing students as job seekers but on becoming job creators. Sustainability is also an important part of the modern curriculum. Namely, education must instill environmental awareness and sustainability through the application of the eco-literacy concept. The adoption of innovative learning models makes Generation Alpha and Beta have skills that are relevant and adaptive to change. This educational transformation is expected to create individuals who are not only academically superior but also able to make fundamental contributions to sustainable development.

**Keywords:** 21st century skills; alpha and beta generations; educational transformation; experience-based education; society 5.0

## 1. Introduction

In the era of Society 5.0, the growth of digital technology, artificial intelligence (AI), and automation is changing how people work and interact [1]. Generation Alpha and Beta, born during this technological revolution, face more complex challenges than the previous generations. However, today's education system still focuses on traditional academic achievements, with teaching methods that are mostly static and centered on memorization and exams [2]. The future of work and life requires individuals who are not only strong academically but also have life skills such as critical thinking, problem-solving, creativity, communication, collaboration, and digital literacy [3].

Many studies have talked about how important it is to transform education to face the digital era [4], [5]. However, there is still a gap in the literature about how education systems can truly adapt to prepare Generation Alpha and Beta with meaningful skills. Most studies focus more on the role of technology in education without discussing how to integrate life skills into the curriculum using more innovative learning methods [6]. Also, current education still lacks learning experiences that support entrepreneurial and innovative mindsets, even though relying on conventional jobs becomes riskier because of automation [7].

To answer this gap, this study aims to identify and analyze (1) why educational transformation is needed for Generation Alpha and Beta and (2) what kind of transformation should happen in schools. This study uses the Systematic Literature Review (SLR) method to examine past studies and summarize various approaches and recommendations that can be applied to the education system. With this approach, this research hopes to better understand the changes needed in education to ensure

Generation Alpha and Beta are ready with the right skills for future challenges.

## 2. Literature Review

### 2.1 Society 5.0 and Its Educational Implications

The Japanese government introduced society 5.0 through the Japan Business Federation (Keidanren) in response to the Industrial Revolution 4.0. This concept emphasizes the balance between technological progress and human wellbeing by utilizing artificial intelligence (AI), the Internet of Things (IoT), and big data analysis to create more inclusive solutions [8].

In the context of education, Society 5.0 demands changes in teaching methods, the development of technology-based curricula, and increased digital literacy for students and educators. In the field of education, Society 5.0 demands a transformation of the learning system to be more adaptive to technological developments. Integrating technology in education must strengthen 21st-century skills, such as critical thinking, creativity, and digital literacy [9]. A successful education system in the digital era can adapt technology-based learning while maintaining human interaction as the main factor in developing character and social values [2].

### 2.2 Educational Transformation in the Digital Age

The digital era has significantly changed the educational landscape. Conventional learning models based on teacher-centered learning have begun to shift to more flexible and technology-based student-centered learning models. The European Commission identified several forms of educational transformation that have occurred due to technological developments [10], including:

#### a. Technology-based learning

Personalizing education involves using Learning Management Systems (LMS), online learning, and artificial intelligence.

#### b. Hybrid Learning and Blended Learning

A blended learning model that combines face-to-face instruction with digital technology to increase learning effectiveness.

#### c. Use of Augmented Reality (AR) and Virtual Reality (VR)

This technology enhances the learning experience by presenting interactive simulations that enrich students' understanding [11].

In addition, a report from the World Economic Forum emphasized that modern education systems must develop lifelong learning capabilities so that future generations can continue to adapt to technological and social changes [12].

### 2.3 Generation Alpha and Beta

Generation Alpha (born around 2010–2025) and Generation Beta (born after 2025) are growing up in a very different digital environment compared to previous generations [13], [14]. Generation Alpha is known as the first generation born in the high-tech era with unlimited access to information, while Generation Beta is expected to become increasingly dependent on artificial intelligence and automation-based technology [15].

Early exposure to technology affects how children learn, think, and interact [16]. Therefore, the education system must be able to design more interactive and technology-based learning methods, such as:

#### a. Gamification in education to increase student engagement in the learning process [17].

#### b. Project-based and collaborative learning to hone critical thinking and problem-solving [3].

#### c. A more flexible and adaptive curriculum to meet individual needs based on learning data analysis [18].

With their digital characteristics, education for Generation Alpha and Beta must balance digital intelligence with the social, emotional, and ethical aspects of technology.

### 2.4 Meaningful Life Skills for the Future

In an era of uncertainty and rapid change, meaningful life skills are essential to prepare individuals to adapt and thrive holistically. Life skills that the next generation must master include [19]:

#### a. Cognitive Skills

Critical thinking, creativity, problem-solving, and digital literacy.

#### b. Social and Emotional Skills

Communication skills, collaboration, empathy, and self-management.

### c. Technical Skills

Mastery of technology, data literacy, and understanding of sustainability and environmental principles.

Social and emotional skills have a greater long-term impact on a person's success than academic intelligence alone [6]. In addition, integrating 21st-century skills with the needs of industry and global society [20]. Thus, future education must be designed to build skills that are relevant to the needs of the world of work and capable of forming individuals who are independent, competitive, and have high social and environmental awareness.

## 3. Research Method

This study employs the Systematic Literature Review (SLR) method to identify and analyze the educational transformation needed for Generation Alpha and Generation Beta to navigate the era of Society 5.0. The SLR method is chosen because it allows researchers to systematically review, evaluate, and synthesize existing research findings to produce a more in-depth and comprehensive understanding. In this context, the updated PRISMA 2020 guidelines provide a comprehensive framework for reporting SLRs, reflecting advancements in methods for identifying, selecting, appraising, and synthesizing studies.

The SLR process in this study follows the stages adapted from the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [21], which include identification, screening, eligibility, and inclusion.

### a. Identification of Data Sources

The articles used in this study were collected from leading academic databases such as Scopus, Web of Science, SpringerLink, and Google Scholar. The keywords used in the literature search included "educational transformation," "Society 5.0," "Generation Alpha," "Generation Beta," "life skills," and "21st-century education," combined using Boolean operators (AND, OR) to obtain more relevant results.

### b. Inclusion and Exclusion Criteria

The inclusion criteria applied in this study are as follows:

- 1) Articles published in indexed journals (Scopus, WoS, or Sinta 1–3).
- 2) Articles discussing educational transformation in the digital era and Society 5.0.
- 3) Studies focusing on Generation Alpha and Beta in the context of education.
- 4) Publications in English or Indonesian from the period 2013–2024.

Meanwhile, the exclusion criteria are:

- 1) Articles that are not relevant to the main topic.
- 2) Studies that only discuss technology in education without linking it to educational transformation.
- 3) Articles in the form of opinions, editorials, or unpublished reports (grey literature).

### c. Screening and Selection Process

#### 1) First Stage

An initial screening was conducted based on the title and abstract to ensure the relevance of the articles.

#### 2) Second Stage

Articles that passed the first stage were further analyzed by reading the full content to evaluate their contribution and the research methodology used.

#### 3) Third Stage

Articles that met the criteria were analyzed and synthesized using a thematic approach to identify key patterns in educational transformation for Generation Alpha and Beta.

### d. Synthesis of results

A thematic approach was employed to classify various perspectives on educational transformation. Thematic analysis identifies, analyzes, and reports patterns (themes) within qualitative data [22]. This method enables researchers to gain deeper insights from the data by extracting key themes relevant to the research focus. In conducting this analysis, the researcher followed the six phases of thematic analysis, namely: (1) becoming familiar with the data through reading and understanding the content of the analyzed articles, (2) generating initial codes based on relevant aspects, (3) searching for themes among the generated codes, (4) reviewing the themes to ensure their relevance, (5) defining and naming the themes for clarity, and (6) producing the final report of the analysis. The analysis results are presented in the form of major categories that reflect the driving factors behind the need for educational transformation, the recommended strategies, and the factors behind the need for educational transformation and the recommended strategies.

#### 4. Results and Discussion

##### 4.1 Why is Educational Transformation Necessary for Generation Alpha and Beta?

Generation Alpha (born 2010–2025) and Generation Beta (born after 2025) will live in the Era of Society 5.0 and Industry 5.0, where technology, artificial intelligence, and humans work in harmony to create a better life [13], [14]. Their distinct characteristics necessitate educational transformation (see Figure 4.1).

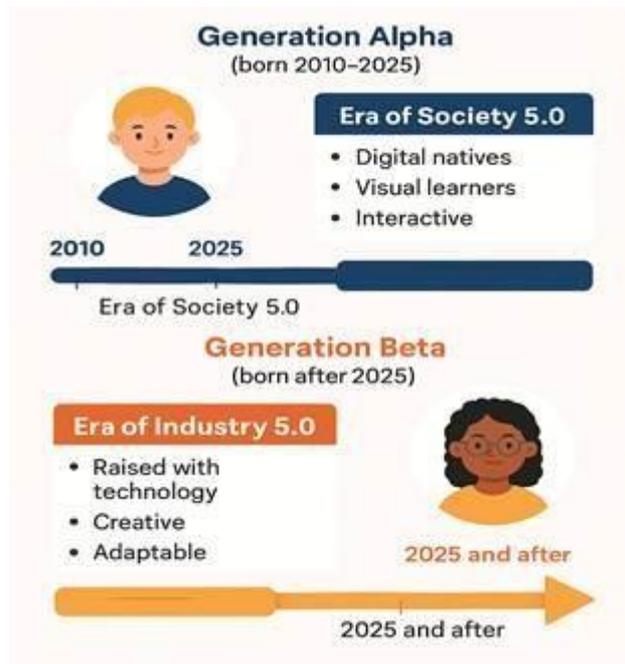


Figure 4.1 Generation Alpha and Beta

##### 4.1.1 Digital-Native Generations

Generation Alpha and Beta have been accustomed to technology since birth. They are not only passive users but also have great potential to become creators of digital solutions [23]. With exposure to technology from an early age, this generation's learning patterns tend to be more visual, interactive, and exploration-based [24]. However, the current education system still adopts a traditional approach that is less responsive to their digital characteristics.

Technology-based educational approaches that use visual, interactive, and project-based learning are more appropriate solutions for this generation. Learning models such as game-based learning and adaptive learning supported by artificial intelligence (AI) have been shown to increase student engagement and understanding [25]. In addition, research shows that using technology in education can increase learning motivation, creativity, and problem-solving skills [26]. Therefore, educational transformation must integrate technology as a tool and a major component in the learning process. The comparison of conventional education with digital-native preferences can be seen in Figure 4.2.



Figure 4.1.1 Conventional Education vs Digital-Native Preferences

#### 4.1.2 The Era of Society 5.0 and Industry 5.0

The Japanese government introduced the concept of Society 5.0, which emphasizes the integration of advanced technology with human life to create innovative solutions for society [1]. Unlike the Industry 4.0 era, which focused on automation and digitalization, Industry 5.0 emphasizes collaboration between humans and artificial intelligence (AI) to increase productivity and innovation [27]. In the context of education, Society 5.0 and Industry 5.0 demand a paradigm shift in learning. Learners must not only have digital skills, but also think critically, be able to solve complex problems, and have ethical awareness in the use of technology [28]. Therefore, future education must equip students with computational thinking, data literacy, and emotional intelligence skills to manage human-machine interactions wisely [29].

One approach that can be used is STEAM education (Science, Technology, Engineering, Arts, and Mathematics), which teaches technology and innovation skills in real-world contexts [30]. Thus, education not only produces a workforce ready to face the industrial revolution but also individuals who can use technology to create a positive impact on society. Although Society 5.0 and Industry 5.0 offer great opportunities, a major challenge in education is the skills gap between the education system and the workforce's needs [4]. Many graduates lack the skills needed in the digital economy, including analytical thinking, innovation, and entrepreneurship. In addition, outdated and overly academic-oriented curricula are major obstacles in preparing students to face the changing times. Educational models that still focus on memorization and exams tend to inhibit the development of creativity and problem-solving [6]. Therefore, more flexible, adaptive, and real-experience-based curriculum reform is needed so that students can develop skills appropriate to future needs.

#### 4.1.3 The Unpredictability of the Future Workforce

Technological developments and globalization are increasingly accelerating the transformation of the world of work. A report from the World Economic Forum revealed that 65% of future jobs do not yet exist today, meaning that many professions will emerge due to technological innovation, while traditional jobs may be replaced by automation and artificial intelligence (AI) [12]. This condition requires the Alpha and Beta generations to have more flexible, adaptive skills and be able to create their job opportunities [31].

In the face of this uncertainty, education can no longer be oriented solely to meeting the needs of conventional workers. Instead, the education system must equip students with 21st-century skills, including creativity, problem-solving, communication, and collaboration [32]. According to Fullan and Langworthy [33], education must emphasize deep learning competencies, namely skills that enable students to think critically, innovate, and work in an ever-changing environment.

In addition, the younger generation also needs to be equipped with an entrepreneurial mindset, namely an entrepreneurial mindset that emphasizes the ability to recognize opportunities, take calculated risks, and build innovative businesses [34]. Project-based learning and experiential learning, which teach students how to solve real-world problems and collaborate with various parties, be more effective in instilling these skills than traditional learning methods [35]. Thus, flexible and real-life experience-based education will be more relevant in preparing the Alpha and Beta generations for the uncertain world of work (see Figure 4.3).



Figure 4.1.3 The unpredictability of the future workforce

4.1.4 Heightened Environmental and Sustainability Awareness

Another challenge the Alpha and Beta generations face is the worsening environmental crisis. Climate change, pollution, and ecosystem degradation have threatened the planet's future [36]. Therefore, education must be important in instilling environmental awareness and sustainability values from an early age. The concept of education for sustainable development (ESD) initiated by UNESCO emphasizes that education aims to improve academic knowledge and form individuals responsible for the environment and society [37]. Through a problem-based learning approach, students can be trained to analyze environmental problems, develop innovative solutions, and apply real actions in everyday life [38].

In addition, green schools and eco-learning projects have increased students' environmental awareness and taught them practical ways to contribute to sustainability [39]. For example, schools implementing a sustainability-based curriculum often integrate waste management, urban agriculture, and renewable energy projects, providing theoretical understanding and hands-on experience in maintaining ecological balance [40]. Thus, future education must ensure that learners become skilled workers and individuals with ethical, and environmental awareness and can create sustainable innovations for a better future.

4.1.5 The Tension Between Instant Gratification and Meaningful Learning

In the fast-paced digital era, the Alpha and Beta generations grow up in an environment that offers easy access to information and instant solutions. Technology has shaped their mindset to be fast, efficient, and instant, where everything can be obtained with just a few clicks. However, the main challenge of this phenomenon is the lack of deep involvement in the learning process. The excessive exposure to technology can reduce the ability to think deeply and reflectively because individuals are accustomed to instant information without deep understanding [41]. However, research also shows that this generation is looking for something instant and needs meaning [33]. They are more interested in learning experiences relevant to real life, where they can see the direct impact of their learning. Therefore, future education must adopt more interactive, experiential learning and contextual methods to remain interesting and relevant.

The experiential learning approach emphasizes that learning becomes more effective when students are directly involved in real experiences rather than passively receiving information [35]. This experiential learning model consists of four main stages. First, Concrete Experience, where students directly experience a real situation or problem. Second, Reflective Observation is the stage where they reflect on the experience and analyze it to understand deeper implications. Third, abstract conceptualization is where students develop concepts or theories based on the experiences they have gone through. Finally, Active Experimentation is

the stage of testing concepts that have been learned in new situations to deepen their understanding and skills. By following this cycle, students can gain a deeper understanding and connect theory with real-life practice.

This approach effectively increases students' cognitive, emotional, and social engagement [42]. An example of implementing this method in education is project-based learning (PBL), where students learn through completing real projects relevant to their lives. PBL was more effective in increasing deep understanding than traditional learning methods because students were directly involved in the process of exploration, discussion, and problem-solving [43]. While technology is often associated with an instant mentality, when used appropriately, it can be a tool that facilitates deeper and more meaningful learning. Blended learning, which combines online and offline learning, has been shown to improve student motivation and learning outcomes [44]. Technologies such as virtual reality (VR) and augmented reality (AR) can also create more immersive learning experiences, where students not only receive information but also feel and experience the concepts they are learning [45]. In addition, game-based learning is also increasingly developing as a solution to increase student engagement. Well-designed educational games can help students develop critical thinking, problem-solving, and collaborative skills because they are encouraged to explore, make decisions, and learn from the consequences [46].

#### 4.2 Educational Transformations Required in Schools

In the era of Society 5.0 and rapid digital development, education must help Alpha and Beta generations gain useful life skills for the future (see Figure 4.4).

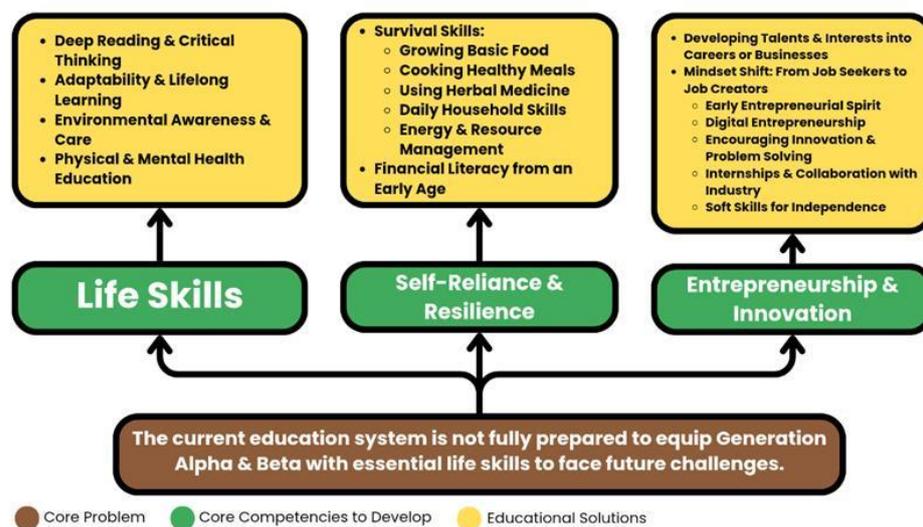


Figure 4.2 Tree of Educational Transformation for Generation Alpha and Beta

##### 4.2.1 Strengthening Deep Reading and Critical Thinking Skills

In the era of Society 5.0 and rapid digital development, education must help Alpha and Beta generations gain life skills that are useful for the future. One of the most important skills is deep reading and critical thinking. Today, people can easily access information online, but this also creates problems. Many students find it hard to tell which information is true or false. A study found that students often believe in fake news and digital propaganda [47]. Because of this, schools need to teach students how to read deeply and think critically. Deep reading is not just reading fast [48]. It means analyzing, connecting ideas, and understanding the wider context. However, because Alpha and Beta generations usually read digital content quickly, they tend to lose this deeper thinking skill. To fix this, schools should teach digital literacy and critical reading strategies and use AI to support better information analysis. Besides reading, students also need critical thinking and problem-solving skills. Although AI can do routine tasks, humans are still needed for creative thinking and complex decisions.

Students must learn how to analyze data and make logical decisions. Education should use innovative methods like Project-Based Learning (PBL) and Design Thinking to do this. These methods help students solve real-world problems and think more deeply. Interdisciplinary STEM learning can also show students how different subjects connect in solving complex issues. Deep reading strategies like SQ3R and critical skimming improve students' understanding and memory [49]. So, future education should focus less on memorizing and more on reflection, discussion, and exploring useful information. In short, education must build students' deep reading and critical thinking skills. This way, they can consume information and evaluate, analyze, and create new solutions for the digital world.

#### 4.2.2 Developing Adaptability and Lifelong Learning Skills

In the fast-changing digital era, education must prepare students for jobs that may not exist yet. While 85 million jobs will be lost to automation by 2025, 97 million new ones will be created [12]. This shift means today's skills may not be enough for the future. Therefore, students must develop adaptability and a lifelong learning mindset to stay relevant in a changing job market. Adaptability is adjusting quickly in academic or work settings [50]. As technology evolves, individuals must continuously upgrade their skills. Lifelong learning helps people remain competitive and resilient in a dynamic world [51].

Transformative Learning theory explains that lifelong learning happens when individuals reflect on past experiences, reshape their thinking, and apply new understanding in real life [52]. This flexibility is crucial for facing future uncertainties. People with a lifelong learning mindset are more likely to grow in their careers and adapt to change [53]. Education should, therefore, promote a culture where learning continues beyond school. Schools should offer flexible learning methods and focus on future-ready skills to support this. Interdisciplinary learning, combining STEM with arts and social sciences, helps students develop broader thinking and creativity [54]. Project-based learning improves critical thinking and problem-solving, key skills for the future [55]. AI-powered learning tools, like AI tutors, make education more personal and efficient by adjusting to individual needs [56]. Microlearning, or learning in small, focused modules, also supports lifelong learning. It improves long-term memory and allows flexible access to learning anytime, anywhere [57].

#### 4.2.3 Raising Environmental Awareness and Responsibility

Alongside the digital revolution, future generations will confront environmental challenges, climate change, resource depletion, and industrial waste. Thus, modern education must go beyond science and technology and cultivate a deep sense of environmental awareness, responsibility, and the practical skills needed to address ecological issues. These aspects are no longer optional but crucial survival competencies in the 21st century.

One effective approach is integrating eco-literacy and the circular economy into education. The circular economy minimizes waste, maximizes resource reuse, and encourages sustainable innovation [58]. This aligns with eco-literacy: the ability to understand ecological systems and apply that knowledge to foster a balance between human activities and the natural world [59]. In this context, survival skills also include conserving natural resources and adapting to rapidly changing environmental conditions. When students engage with sustainability topics, their ecological awareness increases significantly, often sparking real-world initiatives. Implementing problem-based learning (PBL) is key [60]. This method gives students real-life environmental dilemmas, such as deforestation or plastic waste, and challenges them to find solutions through science, creativity, and green technology. Such approaches also develop systems thinking and critical reflection.

Experiential learning plays a vital role. School-based sustainability projects, like composting programs, school gardens, or clean energy initiatives, allow students to practice eco-conscious behavior directly. Finland's interdisciplinary sustainability curriculum [61] and Japan's "school farm" model demonstrate how combining theory with practice builds lasting environmental values. Furthermore, green laboratories offer students hands-on experience in organic farming, renewable energy, and sustainable waste management. Nature-based education improves ecological understanding and students' emotional wellbeing and social cohesion [62]. Thus, education systems must embed eco-literacy and sustainability into core learning to prepare environmentally responsible citizens. These efforts ensure students are aware of environmental issues and equipped to lead change for a more sustainable future.

#### 4.2.4 Physical and Mental Health Education

In the Society 5.0 era, education must evolve beyond academic knowledge to include holistic life skills supporting physical and mental well-being. Generations Alpha and Beta face growing challenges due to their increasingly digital lifestyles, which can lead to physical health issues such as obesity and heart disease, as well as mental health concerns like anxiety and depression [63].

Health education should, therefore, be integrated into the school curriculum to help students understand a healthy lifestyle. It should cover nutrition, physical activity, sleep habits, and stress management. Health literacy goes beyond knowing health facts; it means using that information to make better life decisions [64]. In a world where digital misinformation spreads easily, students must also learn how to evaluate the validity of health information they encounter online.

Moreover, excessive screen time and uncontrolled technology use may lead to social anxiety, dependency, and a decline in meaningful social interaction [65]. This puts Alpha and Beta at higher risk. Hence, they need to be equipped with digital wellbeing skills and emotional intelligence to help them balance technology use, manage emotions, and build empathy. The Self-Determination Theory explains that everyone needs to feel competent, socially connected, and autonomous [66]. However, when technology interferes with these needs, people may feel more stressed and unsatisfied with life. That's why teaching students how to use technology healthily and mindfully is important.

One effective approach is through Social-Emotional Learning (SEL), which develops emotional awareness, empathy, and responsible decision-making [67]. Research shows that SEL programs improve students' emotional health, social skills, and academic performance [68]. Activities like self-reflection, group discussions, and mindfulness can help students face digital-age

challenges more calmly and wisely.

Digital wellbeing means using technology to protect mental and physical health [69]. Education can support this by helping students create boundaries, become aware of the psychological effects of social media, and maintain balance by participating in offline activities such as sports, reading, or real-life social interaction. Finally, moderate and mindful technology use is far more beneficial than excessive or uncontrolled use. Teaching this awareness is essential for preparing future generations to live healthily in a digital world [70].

#### 4.2.5 Financial Skills from an Early Age

Financial skills are as important as health in preparing Generation Alpha and Beta for the future. As the economy becomes more digital and flexible, young people must be independent in managing money and creating financial opportunities. However, many schools still don't teach enough about money management, such as saving, budgeting, or investing [71]. People with good financial literacy make smarter financial decisions and enjoy more economic stability [72]. To improve this, schools should start teaching financial topics early. This includes lessons on personal budgeting, saving habits, investment basics, and financial risks. Also, students should learn about new digital opportunities like freelancing, creative industries, and digital business. Project-based learning (PBL), such as making a business plan or running a small digital business, helps students understand finance better [73]. These methods prepare young people to survive financially and become future entrepreneurs and job creators.

#### 4.2.6 Developing Talents and Interests into Careers and Businesses

To face the future world of Society 5.0 and Industry 5.0, education must help students explore and grow their talents and interests into possible careers or businesses. Every student has unique strengths, not just in academics but also in areas like music, sports, and social skills, based on Gardner's Multiple Intelligences theory [74]. Personalized education lets students learn in ways that match their interests and needs. When learning is connected to their passions, students are more motivated and develop skills like creativity, critical thinking, and collaboration [75]. Project-based learning (PBL) and AI tools can support this by allowing students to work on projects they care about and giving feedback that fits their learning style.

In today's digital era, creative talents can become income sources through platforms like YouTube, Spotify, or Fiverr. The gig economy and freelancing also offer flexible job options. Therefore, schools should teach digital and entrepreneurial skills early, including business, marketing, and innovation. Like school business incubators, entrepreneurial education that uses real-world practice can build student confidence in starting their own businesses. This way, they'll be ready to find jobs and create them.

#### 4.2.7 Learn Survival Skills

In the era of Society 5.0, technology has made big changes in our lives and how we work, communicate, and meet our daily needs. But basic survival skills are still very important even with all these changes. These skills help people become strong, independent, and ready to face challenges in life. They are not only useful in emergencies but also in daily routines. That's why schools need to include survival skills in their lessons. It helps prepare the next generations, Gen Alpha and Gen Beta, to live better, healthier, and more sustainable lives.

##### a. Simple Food Gardening

One important survival skill is growing your food. With climate change and the overuse of natural resources, food shortages can become a serious problem [76]. Learning how to grow vegetables, fruits, and herbs can help people get fresh and healthy food by themselves. This skill is also useful in reducing our dependency on the market. Schools can use the experiential learning method, where students learn by doing. For example, they can grow plants in a school garden. This hands-on activity helps students understand where food comes from and how to care for the environment. Gardening also teaches about the circular economy, where we use resources in a way that reduces waste [77]. Students learn how to use organic waste, like food scraps, as a natural fertilizer instead of using chemical products. So, gardening is not just about planting but also about caring for nature.

##### b. Cooking Healthy Food

In today's world, many people eat fast food because it's quick and easy. But eating too much fast food can cause health problems like obesity and poor nutrition [78]. Teaching children how to cook healthy meals helps them take control of their nutrition and develop good habits from a young age [79]. When students learn to cook, they build confidence and feel more independent. According to research, teenagers who know how to cook usually eat more vegetables and have better eating habits. That's why cooking should be part of school education in science and health classes or through special extracurricular programs. This skill doesn't just support survival, but it also improves students' wellbeing and teaches them the value of homemade meals.

##### c. Using Herbal Medicines

More people today are interested in natural ways to stay healthy. Herbal plants like ginger, turmeric, and tulsi can help strengthen the immune system and prevent sickness [80]. Children should learn how to identify and use these plants safely. Learning about herbal medicine can be fun and educational. Students can grow herbal plants in school gardens and learn how to make simple products like herbal teas or oils. These activities help students connect with nature and understand how natural

ingredients can be used for healing. This skill is useful not only in emergencies but also in everyday health care. It reduces the need for chemical medicine and encourages sustainable health practices.

d. Basic Household Skills

Simple activities like washing clothes, cooking rice, sewing a button, or fixing broken items may seem small, but they are important for living independently [81]. These tasks teach children to take care of themselves and their surroundings. Children who learn to manage basic housework grow up to be more responsible and ready to face real-life situations [82]. It also helps them develop problem-solving skills. Teaching household chores in schools or encouraging students to do them at home supports their personal development and emotional growth. These everyday skills shape stronger and more mature individuals who can live independently when they grow up.

e. Managing Energy and Resources

In modern times, using energy and resources wisely is a major challenge. Natural resources like water and electricity are becoming limited. Students must understand the importance of saving energy and protecting the environment. Teachers can help students learn through real-life projects, such as reducing electricity use in school, collecting rainwater, recycling paper and plastic, or even trying small solar panels. These projects help students experience how their actions can make a difference. Education plays a big role in building a generation that respects and protects nature [83] with better habits, students can grow into adults who care about sustainability and take action to save the planet.

#### *4.2.8 Transforming the Mindset: From Job Seeker to Job Creator*

In today's digital era, young people must shift their mindset from being job seekers to job creators. Technological advances such as automation and AI have changed the job landscape, making it easier for individuals to create opportunities [84]. However, the education system tends to focus on producing workers for traditional industries rather than nurturing adaptive and innovative entrepreneurs [85]. Schools must now take a more active role in developing an entrepreneurial mindset by equipping students with the skills to build their careers.

a. Fostering Entrepreneurship Early

Introducing entrepreneurship at a young age through real experiences is key. [35] Experiential Learning theory supports this by showing students learn better through hands-on practice. Programs like student business projects, where students manage small businesses in school, help them learn finance, marketing, and customer service [86]. Direct experience encourages creative thinking and entrepreneurial goals [87]. Additionally, teaching students that failure is part of the learning process, it helps them embrace challenges, a crucial trait for entrepreneurs [88].

b. Teaching Digital Entrepreneurship

Technology has opened many doors for online businesses. Students should learn skills like e-commerce, digital marketing, and social media monetization to help them use the Internet as a business tool [89]. Knowing digital marketing increases business success, especially among tech-savvy youth [90]. Schools should offer training in E-commerce (how to run online shops), Digital Marketing (using SEO and ads), and social media monetization (earning from platforms like TikTok and YouTube). This prepares students to create careers that fit their interests and talents.

c. Encouraging Innovation and Problem-Solving

To develop innovative solutions, students must develop critical thinking and problem-solving skills. Project-based learning (PBL) encourages students to address real-world issues creatively [91]. Real-life projects improve creativity, teamwork, and thinking skills. Students could, for example, design eco-friendly products to tackle community problems [92]. Design Thinking also helps them follow a step-by-step process to build useful ideas, from empathy to testing solutions.

d. Promoting Internship and Business Collaboration

Besides classroom learning, real work experiences like internships are vital. These should include big companies, startups, and small businesses, which offer more dynamic environments [93]. Adaptability is the ability to adjust quickly in academic or work settings [94]. Internship experience boosts student readiness for the job market and improves decision-making confidence [95]. Schools should partner with businesses to give students practical experience and networking opportunities. School business incubators can also provide mentorship and funding for student-led ventures.

e. Strengthening Soft Skills for Independence

Besides business knowledge, soft skills are essential for entrepreneurial success. Education must focus on leadership, communication, creativity, and networking [96]. Emotional intelligence, understanding others, and managing emotions are key to long-term success. Soft skills improve resilience and business outcomes [97]. Therefore, soft skill development should be part of the curriculum through group discussions, simulations, and leadership programs.

## 5. Conclusions

Generation Alpha and Beta will face a world vastly different from previous generations, especially in the era of Society 5.0 and Industry 5.0, where technologies such as artificial intelligence, automation, and digitalization will increasingly dominate various aspects of life. If the education system fails to adapt, these generations will struggle to cope with the uncertainties and rapid changes of the future. Therefore, a fundamental transformation in education is imperative from merely producing job-seeking graduates to shaping individuals capable of innovation and adaptation and even creating employment opportunities. The future education system must equip students with meaningful life skills, academic competencies, and essential survival abilities such as growing food, preparing healthy meals, and managing households independently. Furthermore, education should cultivate an entrepreneurial spirit, teach digital entrepreneurship, encourage innovation through problem-solving, and strengthen student experiences through internships and collaboration with industry professionals. Equally important, students must be equipped with soft skills such as leadership, communication, creativity, and building professional network skills crucial for success in the digital era.

With a more flexible, technology-based, and skill-oriented education system, future generations will be ready to enter the workforce and capable of creating innovations, building businesses, and contributing positively to the world. They will not merely become job seekers but job creators ready to face global challenges with independence, creativity, and a strong entrepreneurial mindset.

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