

Global Harwell: Embracing Our Global Educational Mission

Chee-Kit Looi, Tak-Wai Chan, Maiga Chang, *Senior Member, IEEE*, Siu-Cheung Kong

Abstract—Recent global conflicts have prompted a reevaluation among educators and researchers about the purpose of education. It is increasingly clear that education must transcend mere knowledge transmission aiming instead to cultivate broader values that foster global harmony and individual wellbeing. This article introduces the concept of “Global Harwell”, a synthesis of harmony and wellbeing as a universal educational goal. Some educational practices are proposed that aim to help educators and learners embrace the global mission of education, oriented towards this shared vision. By uniting diverse stakeholders—educators, researchers, and organizations like UNESCO and OECD—under this vision, we can inspire collaborative efforts to address the pressing challenges of our time. This proposal invites discourse on the potential of Global Harwell as a guiding framework for future educational practices, ensuring that the next generation is equipped not only with knowledge but also with the virtues necessary for peaceful coexistence and sustainable living.

Index Terms—Educational goal, Global Harwell, harmony, wellbeing

I. INTRODUCTION

The landscape of education is undergoing a profound transformation, driven by technological advancements and a globalized society. Yet, amidst these changes, a critical question arises: what should the primary goal of education today be? Traditional educational frameworks often prioritize the acquisition of knowledge and skills relevant to specific disciplines, focusing heavily on academic performance and standardized assessments. However, as highlighted by recent international tensions, there is an urgent need for an educational paradigm that emphasizes harmony and wellbeing—elements crucial for fostering a peaceful and productive global society [1].

In his keynote at AIED2007 [2], Tak-Wai Chan posted “The Global Educational Goal Problem—Rethinking Educational Goals from a Global Perspective” as a grand challenge for the research community. He pointed out that “nuclear holocaust, earth resource exhaustion, mass extinction of species, polarization of society, etc.” have already become global crises, prompting concerns about the

survival of future generations on this planet. Yet, he stressed, “We researchers are the designers of education and, hence, the future society. We are very powerful—too powerful!” Since 2021, led by Chan, a group of researchers have had a prolonged discussion in which the notion of Global Harwell was gradually conceived. Because of COVID-19, the escalation of global conflicts, the advent of generative AI and the seamless AI world, the notion of Global Harwell emerges as a compelling candidate for this overarching educational goal.

Global Harwell encapsulates the aspiration for a world where individuals thrive both personally and collectively, grounded in fundamental human values. This article will explore the foundations of Global Harwell, its implications for educational practices, and the collaborative efforts required to realize this vision. By positioning harmony and wellbeing at the center of educational objectives, we can help cultivate a generation of learners who are not only intellectually capable but also emotionally intelligent and socially responsible.

In exploring the implications of Global Harwell, this article will consider the role of educators in fostering an environment that encourages open dialogue and respect for diverse perspectives and discuss how educational institutions can adjust their curricula to incorporate teachings on empathy, cooperation, and ethical decision-making. Potential collaborations will be explored that can provide the necessary resources, support, and expertise to help educators effectively achieve the shared vision of Global Harwell. Challenges that educators may encounter will be identified, aiming to spark discussions and encourage participation among educators to collectively explore experiences, insights, and strategies for integrating harmony and wellbeing into educational practices. Through this collaborative effort, the goal is to establish a more holistic and impactful educational framework that prepares learners to navigate the complexities of the modern world.

II. THE NEED FOR A GLOBAL EDUCATIONAL GOAL

In an interconnected world, the challenges facing humanity—climate change, social inequality, and conflict—demand a unified response [2]. Developing a unified response to these global issues requires values and capabilities, and education plays a pivotal role in shaping these competencies of future generations. As Rizvi [3] noted, rethinking educational goals from a global perspective is essential. The Global Harwell goal addresses this need by promoting a shared vision that transcends cultural and national boundaries, aligning education goals with the urgent needs of our time.

The urgency of adopting Global Harwell as an educational goal is underscored by several pressing global issues. For instance, the World Economic Forum [4] highlights the increasing inequality exacerbated by the COVID-19 pandemic, which has affected educational access and quality, particularly for marginalized

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C.K. Looi and S-C. Kong are with the Education University of Hong Kong (e-mail: cklooi@eduhk.hk & skong@eduhk.hk)

T-W. Chan is with National Central University (e-mail: chan@cl.ncu.edu.tw).

Maiga Chang is with Athabasca University, Canada (e-mail: maiga.chang@gmail.com).

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communities. This disparity calls for an educational framework that not only prioritizes academic learning but also emphasizes social equity and collective wellbeing.

Why Global Harwell? The term “Harwell”, a fusion of “harmony” and “wellbeing”, reflects the dual focus on creating peaceful societies and fostering individual fulfilment. By prioritizing these values, education can cultivate global citizens who are knowledgeable as well as compassionate and responsible. The urgency of this approach is underscored by the increasing prevalence of issues such as mental health crises, social polarization, and environmental degradation, which demand solutions rooted in collaborative and empathetic mindsets [5]. In this context, technology plays a pivotal role in expanding educational access and quality, and in bridging gaps by providing remote learning opportunities and resources to underserved populations.

Ultimately, the Global Harwell goal emphasizes the need for collaboration among governments, educational institutions, and communities. By leveraging diverse resources and expertise, these partnerships can create impactful educational programs. The potential long-term impact of this educational framework includes developing a generation of leaders equipped to address global challenges with innovative and sustainable solutions.

III. DEFINITION OF GLOBAL HARWELL

Global Harwell is a guiding principle for personal development, education and social progress that combines the ideas of harmony and wellbeing with basic human aspirations around the world. To understand Global Harwell, we must first define its core components: harmony and wellbeing.

A. Harmony

Harmony refers to a state of balance and peaceful coexistence, not only within individuals but also between communities, societies and nations. Harmony is characterized by peaceful coexistence, mutual respect and understanding among individuals and communities [6]. It involves the integration of diverse perspectives and the cultivation of mutual respect and understanding. In the context of Global Harwell, harmony emphasizes the importance of fostering environments where diverse cultures and ideologies can thrive, promoting social cohesion and reducing conflict. It encompasses several dimensions:

1) Environmental Harmony

The balance between human activity and the natural world is crucial for sustainability. Education must instill a sense of responsibility towards the environment and encourage practices that promote ecological balance. The United Nations Environment Programme [7] emphasizes the role of education in fostering sustainable practices and environmental stewardship.

2) Human Harmony

This aspect refers to the social fabric that binds communities, promoting inclusivity and equity. Education should aim to dismantle barriers of prejudice and discrimination, fostering an environment where diverse perspectives are valued and celebrated. The role of education in promoting human harmony has been shown, for example, programs that focus on anti-bullying and inclusivity can significantly enhance social cohesion among students [8].

3) Societal Harmony

Understanding and appreciating societal differences is essential in a globalized world. Education that emphasizes societal awareness and sensitivity can help bridge divides and cultivate mutual respect among different communities. Initiatives such as cultural exchange programs and intercultural dialogue can promote understanding and reduce xenophobia [9].

Environmental harmony provides the foundation for a sustainable future, as the health of the planet directly impacts the wellbeing of human societies and societal practices. Human harmony is essential for fostering collaborative efforts to address environmental challenges, as collective action across diverse communities is critical for sustainability. Similarly, societal harmony enriches both human and environmental harmony by promoting cross-cultural understanding, which is essential for global cooperation on issues like climate change and social justice. Together, these dimensions create a virtuous cycle: a sustainable environment supports equitable human development, while societal awareness strengthens the bonds necessary for global collaboration.

B. Wellbeing

Wellbeing is a multifaceted concept, encompassing physical, mental, and emotional health. We frame wellbeing through the PERMA lens [6], as need a holistic approach that integrates emotional, cognitive, and social dimensions, distinguishing it from other frameworks that may focus solely on physical or mental health. Unlike other models, such as the hedonic approach to wellbeing (focusing on pleasure and the avoidance of pain) or solely health-based frameworks, PERMA offers a balanced perspective that incorporates both subjective experiences (e.g., positive emotions) and objective accomplishments (e.g., achieving goals). This dual emphasis ensures that the concept of wellbeing not only enhances individual flourishing but also contributes to the collective good. By grounding the discussion in the PERMA model, this study builds on a robust foundation of prior research, providing a comprehensive framework for understanding and fostering wellbeing in educational and social contexts.

Drawing from Seligman's PERMA model [6], wellbeing includes:

1) Positive Emotions

Cultivating joy and satisfaction is essential for a fulfilling life. Educational environments should promote happiness, resilience, and the ability to cope with challenges effectively. Programs that teach mindfulness and emotional regulation can enhance students' ability to manage stress [10].

2) Engagement

Encouraging active participation in life allows individuals to immerse themselves fully in their experiences. This can be fostered through hands-on learning and opportunities for creativity. Research shows that engaged students are more likely to achieve academic success and develop a lifelong love of learning [11].

3) Relationships

Building meaningful connections with others is crucial for a supportive community. Schools should prioritize social-emotional learning to help students develop strong interpersonal skills, as strong relationships are correlated with better academic outcomes and overall life satisfaction [12].

4) Meaning

Finding purpose in one's actions is vital for motivation and fulfillment. Education should help students explore their interests and values, guiding them toward paths that resonate with their sense of purpose. Initiatives that incorporate community service can provide students with a sense of belonging and contribution [13].

5) Accomplishment

Achieving personal and collective goals fosters a sense of efficacy and confidence. Diverse forms of achievement, celebrating not just academic success but also contributions to community and society, should be recognized. Recognizing various talents and skills helps students to develop a well-rounded sense of self-worth [14].

Together, these elements form the foundation of Global Harwell, where education aims to nurture both harmony and wellbeing, ultimately leading to a more just and peaceful world.

IV. INTEGRATING GLOBAL HARWELL INTO EDUCATION

This section outlines how the harmony and wellbeing principles of Global Harwell can be incorporated into education systems through thoughtful curriculum design, innovative teaching methods, and meaningful community *engagement*.

A. Curriculum Design

Traditional curricula often only contain academic knowledge and skills, should be restructured to include themes of harmony and wellbeing. Subjects could incorporate:

1) Global Citizenship Education

Teaching students about their roles in a global society [9]. This education should encompass an understanding of global issues, human rights, and the importance of civic engagement. Programs that incorporate both global and environmental issues into the curriculum foster awareness and responsibility among students.

2) Equity, Diversity, and Inclusion (EDI)

Curriculum design must reflect the principles of EDI:

Equity: Recognizing that some students may have differing needs based on gender, ethnicity, or other factors, and adapting materials and assessments accordingly. For instance, medical education might adjust physical and blood lab measurements to account for biological differences.

Diversity: Emphasizing diverse learning content, activities, and assessment forms to accommodate students' varied preferences, backgrounds, and abilities. Differences in how students absorb knowledge and demonstrate skills should be considered.

Inclusion: Ensuring that all students, regardless of their beliefs, cultures, or religions, feel a sense of belonging. Curriculum materials should celebrate diverse histories and perspectives, creating an inclusive learning environment where all voices are acknowledged and respected.

3) Interdisciplinary Approaches

Connecting various fields of knowledge to address complex global issues can foster critical thinking and problem-solving skills. For example, integrating environmental science with social studies can help students understand the interconnectedness of human actions and ecological outcomes. This approach supports the development of systems thinking, essential for addressing multifaceted global challenges [15].

4) Social Emotional Learning (SEL)

Incorporating SEL into the curriculum equips students with emotional intelligence, resilience, and interpersonal skills. SEL initiatives should include anti-bullying campaigns, empathy training, and activities that promote mindfulness and self-awareness. Research shows that SEL improves not only academic performance but also students' social behaviors and emotional wellbeing [11].

B. Teaching Methods

Teaching strategies should go beyond transmitting knowledge to actively fostering collaboration, critical thinking, and emotional growth. Educators can adopt methods that prioritize inclusivity and community-oriented practices:

1) Project-Based Learning

Students should engage in real-world projects that encourage teamwork, problem-solving, and active learning. For instance, projects that tackle local or global challenges—such as environmental sustainability or community health—can empower students with a sense of responsibility and agency [16].

2) Experiential Learning

Providing hands-on learning opportunities, such as field trips, internships, or service projects, helps students apply classroom knowledge to real-world settings. Experiential learning fosters practical skills like adaptability, creativity, and critical thinking while deepening students' connection to their communities [17].

3) Collaborative Learning

Group-based activities teach students how to communicate effectively, listen to others, and work toward shared goals. Educators should ensure that all group members have equal opportunities to contribute, creating a microcosm of harmonious community interaction. These skills are crucial for preparing students for future workplace environments and societal challenges.

Educators should design peer competitions that emphasize effort and perseverance rather than a winner-versus-loser dichotomy. This approach nurtures positive emotional outcomes and a sense of accomplishment while fostering healthy relationships within classrooms.

C. Community Engagement

Education does not only happen in schools, so schools should actively involve parents and local communities in fostering a culture of harmony and wellbeing. Initiatives could include:

1) Workshops and Forums

Creating spaces for dialogue on global issues can enhance community awareness and involvement. These forums can serve as platforms for discussing local challenges and brainstorming collaborative solutions. Engaging community members in educational processes fosters a sense of ownership and investment in local schools.

2) Service Learning

Encouraging students to participate in community service projects [18] helps them understand the importance of giving back and strengthens their connection to the community. Service learning not only benefits the community but also enhances students' social responsibility and civic engagement.

3) Cultural Exchange Programs

Facilitating interactions between students from different cultural backgrounds can promote understanding and respect, preparing them to thrive in a multicultural world. Such programs can help reduce stereotypes and build cross-cultural competence [9].

By integrating these approaches, educational systems can align with the principles of Global Harwell, fostering a generation of learners equipped to contribute to harmony and wellbeing in their communities and beyond.

V. ACHIEVING GLOBAL HARWELL IN THE SEAMLESS AI WORLD

In the Seamless AI World (SAIW), a realm where AI technology seamlessly integrates and empowers nearly every aspect of life, people separated by physical distance can effortlessly communicate through the Internet or metaverse. Such technologies possess transformative potential in realizing Global Harwell.

A. AI and the metaverse

AI technologies offer rich resources and affordances with immense potential for individualized learning [20]. This capability serves as a cornerstone for addressing the diverse needs of students in various educational contexts. As a result, AI not only transforms education but also enhances global connections, promotes equity, and fosters inclusivity, thereby supporting harmony and collective wellbeing on a global scale. To promote equitable education, AI leverages adaptive learning systems and intelligent tutoring to customize education for diverse needs, enabling students from varied backgrounds to achieve better results and reducing educational inequalities. To foster inclusivity, AI-driven learning analytics identifies at-risk students early, enabling timely interventions that lower dropout rates and expand opportunities for underserved populations. Accessibility tools, such as text-to-speech, speech-to-text, and behavior prediction technologies, empower individuals with disabilities and support inclusive learning environments. To address global crises, real-time AI translation bridges language barriers, enhances cross-cultural communication, and fosters collaboration to tackle global crises such as climate change and energy exhaustion. This unites individuals from diverse linguistic and cultural contexts, promoting Global Harwell.

The metaverse offers immersive, interactive environments that bring the ideals of Global Harwell to life through interconnectedness, shared knowledge, and mutual understanding. It transcends geographical barriers with global virtual classrooms, enabling students and educators from diverse cultures to learn collaboratively while fostering empathy and cultural appreciation. Virtual exploration of historical and cultural landmarks deepens understanding of different perspectives, reducing prejudice and cultivating a global mindset. Through simulated experiences, students engage deeply with pressing global challenges, such as climate change, social justice, and public health [21]. Simulations for hands-on training in fields like science, healthcare, and sustainability empower learners to address these critical issues while developing empathy and teamwork. By facilitating cross-cultural and interdisciplinary collaboration, the metaverse nurtures global citizenship,

advancing harmony and wellbeing worldwide.

B. Artificial Companions

Looking further into the future, lifelong artificial companions may emerge as AI-empowered entities capable of fostering personal growth and advancing Global Harwell across life stages. These companions must maintain a lifelong portfolio of the user, storing and analyzing personal data to provide personalized, ethical, and context-sensitive interactions. However, the ongoing quest for Artificial General Intelligence or Strong AI to address ethical considerations, ensure fairness and transparency, and enable human-AI interactions grounded in respect, empathy, and dignity remains a critical challenge. Nonetheless, aligning the pursuit of Global Harwell as the ultimate goal in designing General Artificial Companions is essential for fostering trust and preventing the misuse of AI technologies.

The General Artificial Companions Hypothesis [22] envisions a future where lifelong artificial companions, powered by AGI or near-AGI, significantly shape human values and behaviors. Central to this vision is the role of these companions in promoting Global Harwell as a primary value, influencing at least 50% of individuals' prioritization and actions. This hypothesis posits a symbiotic relationship between humans and AI, where the companionship nurtures mutual growth. Global Harwellians—individuals committed to Global Harwell—play a crucial role in designing these companions, ensuring they embody ethical principles and societal betterment. Ultimately, who shapes the world: humans or AI? It is humans who nurture Harwellians, and Harwellians design General Artificial Companions that, in turn, assist human teachers in nurturing our students as Harwellians.

VI. COLLABORATION AND IMPLEMENTATION

Realizing the Global Harwell goal requires collaboration among various stakeholders, including policymakers, educators, and international organizations. Partnerships should be established to achieve common ground in global values and thus improve the effectiveness of educational goals.

A. Building Partnerships

Establishing partnerships with organizations like UNESCO and the OECD can provide essential resources and frameworks for implementing the Global Harwell vision. Collaborative initiatives may include:

1) Joint Research Projects

Investigating best practices for integrating harmony and wellbeing into education [2]. Research can inform policy decisions and educational strategies, ensuring that they are evidence-based. Collaborative research can also facilitate knowledge sharing across borders, enhancing global educational practices.

2) Global Conferences

Facilitating discussions that bring together diverse perspectives and experiences can foster a shared understanding of the challenges and opportunities in education. Conferences can serve as platforms for sharing successful initiatives and scaling effective practices.

3) Cross-Sector Collaborations

Engaging businesses, non-profits, and community organizations in educational initiatives can provide additional resources and

expertise, enriching the learning environment. Such collaborations can lead to innovative programs that address local needs and global challenges.

B. Addressing Challenges

While the vision of Global Harwell is compelling, several challenges must be addressed:

1) Cultural Differences

Recognizing and valuing diverse interpretations of harmony and wellbeing [19] is essential for developing inclusive educational practices. Educators must be equipped to navigate cultural sensitivities and promote understanding.

2) Resource Disparities

Ensuring equitable access to educational resources across different regions is crucial. Policymakers must prioritize funding and support for underserved communities to create a level playing field for all students. Investments in infrastructure, technology, and teacher training are necessary to bridge the resource gap.

3) Resistance to Change

Implementing new educational paradigms may face resistance from traditionalists. Building a strong case for the benefits of Global Harwell through research and success stories can help mitigate this resistance. Engaging stakeholders in the change process can foster buy-in and support new initiatives.

Strategies to overcome these barriers include promoting inclusive dialogue and leveraging technology to bridge gaps. Advances in technology can pave the way to overcome these barriers, such as online platforms can facilitate communication and collaboration among educators and stakeholders across the globe. In short, actively seeking cooperation and overcoming potential challenges are the ways to achieve Global Harwell.

VII. CONCLUSION AND FUTURE DIRECTIONS

As we navigate an increasingly complex world, the need for a shared educational goal like Global Harwell becomes more pronounced. By fostering harmony and wellbeing, education can empower future generations to create a sustainable, equitable, and peaceful global society. This vision aligns with the United Nations Sustainable Development Goals, particularly Goal 4, which emphasizes inclusive and equitable quality education and promotes lifelong learning opportunities for all [23].

In today's rapidly changing environment, education must evolve to address global challenges such as climate change, social inequality, and technological advancement. Global Harwell encourages the development of critical thinking, creativity, and collaborative skills that enable students to effectively address these issues. Research by By integrating the principles of harmony and wellbeing into the curriculum, educators can nurture a generation that values diversity, respects cultural differences, and works towards common goals.

Moreover, Global Harwell fosters environments where students learn to balance individual aspirations with collective responsibilities. This approach not only enhances personal growth but also strengthens community bonds, laying a foundation for social cohesion and mutual understanding. Education systems that promote social cohesion are vital in addressing the divisions exacerbated by global crises. Schools and universities become spaces where students engage in meaningful dialogue, explore

diverse perspectives, and develop global citizenship.

We invite educators, researchers, and policymakers to engage in discussions about Global Harwell, share insights, and collaborate on initiatives that promote this vision. Through collective efforts, we can shape an educational landscape that not only imparts academic knowledge but also cultivates values essential for thriving in our global community.

In summary, pursuing Global Harwell represents an opportunity for transformative education. It is not just an educational framework but a call to action. It challenges us to rethink the purpose of education in the 21st century and to consider how we can build more resilient, compassionate, and inclusive societies with the power of technology. By investing in this vision, we pave the way for a world where every individual can thrive, and where harmony and wellbeing become the cornerstones of a shared global future.

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& Education. Professor Looi was listed among Stanford's Top 2% Scientists in Education from 2019 to 2024.

Chee-Kit Looi is Chair Professor of the Learning Sciences and Associate Dean of the Graduate School in the Education University of Hong Kong. He is also Emeritus Professor of the National Institute of Education, Nanyang Technological University, Singapore. He is a Fellow of the International Society of the Learning Sciences and of the Asia-Pacific Society on Computers in Education. His research interests include the learning sciences and AI

(<https://new.apsce.net/apsce-award-winners/>). Dr Chang's research mainly focus on artificial intelligence; natural language processing; intelligent agent and chatbot technology; game-based learning, training and assessment, etc. He has given more than 150 talks and lectures in different events and is an IEEE since 1996.



Siu-Cheung Kong is the Research Chair Professor of E-Learning and Digital Competency at the Department of Mathematics and Information Technology and the Director of Artificial Intelligence and Digital Competency Education Centre, the Education University of Hong Kong. Professor Kong was listed among Stanford's Top 2% Scientists in Education from 2019 to 2024. He was the winner of the 2019-2020 HKSAR University

Grants Council Teaching Award (Team Award). He was also the winner of National Teaching Award 2022 – Higher Education (Undergraduate) – Tier-Two Award – Team Award of the PRC. His research interests include AI literacy, metaverse literacy, and quantum literacy education; computational thinking, STEM and mathematics education; pedagogy in digital classrooms, teacher development, and policy in digital education.



recently, technology supported elementary mathematics and language learning. He was a key co-founder of the international academic societies the Asia-Pacific Society for Computers in Education (APSCE) and the Global Chinese Society for Computers in Education (GCSCE).

Tak-Wai Chan is National Chair Professor of the Graduate Institute of Network Learning Technology, National Central University, Taiwan. He has been working on various areas of digital learning, including artificial intelligence in education, computer supported collaborative learning, digital classroom, online learning communities, mobile and ubiquitous learning, digital game-based learning, and, more



(<https://www.computer.org/profiles/maiga-chang>) and also received Distinguished Researcher Award from Asia Pacific Society on Computers in Education (APSCE) in 2022

Maiga Chang, is Associate Dean Research & Innovation and Full Professor in Faculty of Science and Technology, Athabasca University, Canada and Honorary Chair Professor, Multidisciplinary Academic Research Center, National Dong Hwa University, Taiwan. He is IEEE Senior Member. Dr. Chang has been appointed as an IEEE Computer Society Distinguished Visitor for 2023 to 2025