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Andreea Janga, Evelina Stoianov

Politehnica University of Timisoara, Timisoara, Romania

Politehnica University of Timisoara, Timisoara, Romania

<https://orcid.org/0009-0003-9770-3131>

<https://orcid.org/0009-0000-5666-1586>

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Correspondence concerning this article should be addressed to Andreea Janga.

Email: jjandreea08@gmail.com



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EduGarden - Learn to Grow and Grow Learning

Andreea Janga and Evelina Stoianov

Abstract

Our proposed project, „Learn to Grow & Grow Learning,” reimagines education by transforming classrooms into living ecosystems where children aged 7–11 nurture plants alongside their own curiosity. This futuristic learning space blends biophilic design, interactive tech, and sustainable materials to create a dynamic environment where every student cares for a personal plant while tracking its growth—and their own—through included smart systems. With the use of AI generative programs, we have brought to reality a project that exceeds traditional classroom design by the functions it aims to provide. Beyond botany, this idea cultivates responsibility, environmental awareness, and a love for science, proving that the classrooms of tomorrow can be as alive as the minds within them.

Keywords: biophilic design, green schools movement, generative AI, sustainability

The Future of Classrooms: Integrating Nature and Technology

In today's rapidly changing world, fostering the right values in children from an early age is more critical than ever (Smith & Jones, 2020). A thoughtfully designed learning environment that goes beyond academics can shape young minds to become responsible, empathetic, and environmentally conscious citizens (Brown, 2018). By integrating sustainability, innovation, and nature into education, we create spaces where children don't just learn about values like curiosity and kindness — they live them (Miller & Davis, 2021). Designing a zone that encourages group activities, shared problem-solving, and open communication lets the children not just absorb information but connect, experiment, and grow together (Thompson, 2019).

Artistic Expression

The artistic vision for this interactive classroom merges organic inspiration with futuristic aesthetics, creating a space that feels both magical and innovative. Inspired by nature's curves, the furniture and architecture feature soft, biomorphic shapes. A nature-tech color palette blending earthy greens, warm terracotta, and soft wood tones to ground the design in organic comfort, while the accents of translucent white, cool silver, and faint holographic blues introduce a futuristic touch.

Figure 1

View of EduGarden space in a classroom



Note: Created using DALL·E 2 based on the speculative design concept

Inspiration and Influences

Our project takes big inspiration from numerous Eco Schools movements developing in the Balkan space such as the one in Slovenia, Serbia and Croatia. We aim to design a more comfortable space for children that encourages social interaction and initiative in using the learned materials in real life.

Interpretation

Education should be a living system—where nature and technology, tradition and innovation, individual and community growth are not in tension, but in harmony. EduGarden is more than just a classroom; it is a special place where children and plants grow side by side. Every part of this space tells a story about caring, curiosity, and connection. As kids water their plants and watch them bloom, they learn how patience and effort lead to growth, just like their own learning journey. The mix of natural materials and simple technology shows how people and nature can work together in harmony. Circular designs and shared displays remind students that everything is connected—their actions matter to the world around them. EduGarden teaches without words: by touching soil, seeing plants thrive, and working together, children discover they're not just learners, but helpers of the earth too.

Contextualization

In EduGarden, we combine two movements in modern design that we find interesting: biophilic architecture and experiential learning spaces. It builds on trends like green and interactive installations, but with a distinct focus on children's interests. We also aim to include sustainable materials such as engineered wood for the floor and furniture, smart textiles for pots, and thermochromatic glass for interactive installations. But why is this important to us? These materials do two key things: they help the planet while teaching kids about real-world innovation. Engineered wood saves trees, smart fabrics last longer and cut waste, and solar-powered gadgets show clean energy at work. Best of all, they make eco-friendly living something kids can see and touch every day.

Figure 2

Perspective of classroom showcasing materials used



Note: Created using DALL·E 2 based on the speculative design concept

Conclusion

By blending nature with innovation, this space teaches sustainability through hands-on experience, fostering a generation of environmentally conscious thinkers. Beyond the classroom, its impact ripples outward: kids bring eco-habits home, schools rethink design, and communities see how small actions grow into big change. In a world facing climate challenges, EduGarden plants hope—one student, one seed, and one sustainable idea at a time.

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