

DIGIEDUHACK SOLUTION CANVAS

Title of the solution:

Blue Guardians: Where the Ocean Meets the Heart

Challenge addressed:

Blue Citizenship and awareness of ocean-human interconnectedness.

Background of the team:

☐ Higher Education Students

☒ Teachers

☐ Others (please specify)

☐ Researchers

☐ Primary School Students

☐ Professionals

☐ Secondary School Students

Team name:

Geetanju

Challenge category:

Digital Storytelling for Environmental & Sustainability Education

Solution Description

Our solution is a large, multi-chapter digital comic titled *"Blue Guardians: Where the Ocean Meets the Heart."* It blends storytelling, AR/VR immersion, and socio-emotional learning to help students understand Blue Citizenship in an experiential way. The comic uses vivid characters, emotional dialogues, and underwater adventures to explain complex environmental issues such as pollution, coral bleaching, climate change, and overfishing. The story is supplemented with two interactive AR/VR "deep dive" experiences that allow learners to virtually explore ocean world and encounter a plastic monster created by human waste. Through these immersive moments, students not only learn scientific concepts but also develop empathy, responsibility, reflection, and collective action skills. Teachers receive a complete learning kit containing reflection prompts, discussion questions, and activity tasks so the story becomes a full learning journey. Our implementation plan includes creating the storyboard, designing the comic chapters, building AR/VR modules, and integrating everything into one interactive experience accessible to all learners. The final product aims to make environmental education less theoretical and more emotionally engaging, creative, and action-oriented.

Context

The problem we aim to address is the growing disconnect between young people and the environmental issues affecting the planet, especially water bodies. While students read about pollution, climate change, and ocean health, these concepts often remain abstract and emotionally distant. Traditional teaching approaches rarely help them feel responsible or connected to these problems. Our solution aligns with DigiEduHack 2025's theme by combining digital creativity, storytelling, and immersive technologies to make environmental education more relevant, meaningful, and emotionally engaging. It directly responds to the hackathon's challenge category by providing a technologically enriched yet accessible learning experience that builds awareness, empathy, and action mindsets among students.

Target group

This solution has been designed mainly for upper primary and secondary school students who often learn about environmental topics in overly theoretical ways that fail to inspire them. By using relatable characters, emotional storytelling, and interactive "dive-in" experiences, students can see, feel, and understand how their actions affect rivers and oceans. Teachers of environmental science, digital literacy, and value education will also benefit from a ready-to-use teaching resource that brings learning alive through visuals, technology, and reflection. The solution is equally relevant for youth clubs, eco-groups, and community organisations working on water conservation. We plan to engage all target groups through hands-on challenges, digital badges, classroom discussions, reflection sheets, and community-based activities like river clean-ups and "plastic-free weeks." By making learning personal, emotional, and participatory, the project ensures that learners connect deeply with the idea of Blue Citizenship.

Impact

The impact of this solution is both educational and societal. At the learning level, students develop environmental & ocean literacy through story-based exploration, VR experiences, and creative reflection tasks. They start understanding not just *what* is happening to the planet, but *why it matters* and how their choices affect rivers, seas, and marine life. The socio-emotional dimension ensures learners grow in empathy, teamwork, resilience, and ethical decision-making. At a broader level, the project encourages community involvement—students influence their families, organise river clean-ups, reduce plastic use, and advocate for sustainable habits. Teachers gain a robust digital teaching resource that makes science and values education come alive. Over time, such changes can lead to communities becoming more conscious of their environmental footprint, especially regarding water ecosystems. The project creates a ripple effect where awareness leads to reflection, reflection leads to action, and action leads to collective change.

Describe it in a tweet

A digital comic you can *feel* and a VR ocean you can *dive into*! 'Blue Guardians' turns learning into action by building empathy, awareness, and real solutions for our blue planet. Be the tide that brings change!

"Dive into a story where the ocean speaks, hearts listen, and students become Blue Guardians."

Innovativeness

What makes this solution truly unique is the way it blends emotional storytelling, immersive technology, ocean literacy and environmental science into one coherent learning experience. Instead of simply showing information, it allows learners to "live" the issue through characters, dialogues, and underwater AR/VR explorations. The integration of socio-emotional learning makes it stand out from typical environmental education materials. Students not only learn about problems but emotionally connect with the consequences, making the learning deeper and more memorable. There is no existing solution that combines comic storytelling, Blue Citizenship, empathy-based learning, and AR/VR immersion into a single package. This originality makes the solution impactful, relatable, and transformative.

Transferability

A major strength of this solution is its high level of transferability, especially because the entire digital comic and its supporting materials will be published as an **Open Educational Resource (OER)** under a **Creative Commons CC BY licence**. This means any teacher, school, organisation, or learner anywhere in the world can freely use, adapt, remix, translate, or expand the comic as long as they acknowledge the creators. This open licence dramatically increases the reach and sustainability of the project. Schools can customise the comic by adding local water bodies, regional environmental challenges, or culturally relevant characters. Educators may also integrate new AR/VR scenes, create classroom activities, or convert it into multilingual or low-tech formats.

Sustainability

Our long-term vision is to transform this solution into a sustainable educational movement rather than just a single project. Once the first version is complete, we plan to expand the digital comic into more chapters, add multilingual translations to make it more inclusive and region specific. The AR/VR modules can be updated annually to include the latest marine science data. Over time, we hope to create a "Blue Guardians Network" where schools around the world share their actions, stories, and community impact. As this prototype is easy to update, replicate, and scale, it has strong potential for long-term use in schools, NGOs, and edu. programs. This approach ensures that the project remains alive, growing, and sustainable.

Team Work

Our team consists of **Anju Gandhi** and **Geeta Rani**, who together bring a strong blend of creativity, planning, research, and communication. **Anju** contributes as the creative thinker, story maker, planner, and content creator, with experience in digital storytelling, and socio-emotional learning. **Geeta** with knowledge of ocean literacy, environmental education, adds depth as the researcher and communicator, ensuring the content is accurate, meaningful, and emotionally engaging for learners. This combination of skills allows us to design a solution that is not only innovative but also educationally sound and relatable for students. We are the right team for this work because we understand both the science behind Blue Citizenship and the pedagogical needs of learners. Yes, we plan to continue working together in the future.