

TEDI-LONDON SUMMER SCHOOL 2020**CASE STUDY: GLOBAL TEAM WORKING****PROJECT
OUR GARDEN****DELIVERED BY
THE ELVES TEAM**

A multidisciplinary student team spanning Australia, Poland, Saudi Arabia and the United Kingdom, the ELVES' areas of study included anthropology, architecture, business management, chemistry, city planning and engineering (biomedical, chemical, civil and electrical).

BRIEF

Design and prototype an innovative solution to develop a dementia-friendly indoor environment, then pitch the idea to British Land for consideration as part of the Canada Water Masterplan.

PROJECT OVERVIEW**CONTEXT**

47 million people are living with dementia worldwide. This is set to reach 82 million by 2030, with a new case being diagnosed every three seconds.

Through market research, the ELVES team identified that approximately 32% of individuals living with dementia in the UK are at the moderate stage – experiencing amnesia, mild cognitive impairment and mild Alzheimer's. Many struggle to express themselves and require assistance with everyday tasks. As a result, they may be forced to reduce or abandon hobbies and activities they previously enjoyed, leading to low self-esteem, social withdrawal, boredom and, in many cases, depression.

Aware of the measurable benefits that gardening offers individuals with dementia, the ELVES wanted to bring the outdoors inside and create a product for Canada Water that stimulates the senses, stirs memories, fosters conversation and boosts self-esteem through a guided approach to caring for plants.

THE BIG IDEA

Our Garden

A smart, interactive indoor garden that guides the user through the activities required to care for plants.



This provides a rich sensory experience and facilitates community engagement in residential developments and care homes.

Consisting of modular planter boxes, smart sensor technology and a smart display panel, Our Garden allows the local community to contribute to the upkeep of a shared green space, while also providing year-round access to nature and clean air.

APPROACH

The ELVES chose to tackle this project in four distinct phases:

1 IDEA GENERATION

Focusing on a specific problem experienced by people with dementia and developing a product to address it.

2 DESIGN DEVELOPMENT

Iterating the product design in line with feedback from TEDI-London, industry advisors and dementia experts.

3 PROTOTYPE DEVELOPMENT

Investigating functional and user requirements, before creating low-fi, virtual and physical prototypes.

4 BUSINESS PLAN DEVELOPMENT

Resulting in a pitch to secure resources to launch Our Garden.

At first glance, working with a team spread across several different time zones seemed like a significant hurdle. The ELVES overcame this by identifying each individual's strengths and establishing three sub-groups – design, business and organisation – in which team members could work to deliver specific tasks. This approach enabled them to manage their time effectively and utilise their existing knowledge and expertise, while also learning new skills. The ELVES also included social activities in their project schedule to help build trust, enthusiasm and a sense of fun within the team dynamic.

They applied the same ethos to their pitch presentation, ensuring that all team members had access to the central script but assigning specific roles based on interest and ability. For example, one person took responsibility for technical support, while others nominated themselves to present or answer questions from the panel.

From beginning to end, Our Garden was a collective endeavour, perfectly aligned with TEDI-London's approach to Global Design Engineering.

DID IT WORK?

In their self-evaluation, the ELVES celebrated many positive project outcomes resulting from a collaborative approach that also allowed individual skill sets to shine, including:

- A passion for the product being developed
- Open communication
- Strong budget management
- Successful delivery of the low-fidelity prototype, visualisations and iterative interface design
- Conflict resolution (particularly in the beginning, when the team struggled to agree on the core idea for their project)
- Effective pitching
- Organisation, commitment and a willingness to help.

The ELVES also credited the support provided by both TEDI-London and their mentors as a key reason for their success as a team – pushing them to get to know each other quickly, talk about their expectations and identify each other’s strengths in the first few days of the project.

“We are very proud of our team chemistry and the level of professionalism demonstrated by everyone involved – particularly as the group was split across three continents.”

THE ELVES TEAM

KEY LEARNINGS


The ELVES identified their key takeaways from the TEDI-London Summer School as learning to:

- Begin any project by simplifying the problem.
- Start over if your first (second, third) idea doesn’t work.
- Evaluate abilities and set realistic expectations.
- Make the most of all of the resources, teaching, mentoring and advice available to you.
- Be prepared.

“We were so impressed by how the ELVES worked together at TEDI-London. They stood out as an outstanding example of great collaborative teamworking.”

DR SARAH CAMPBELL – TEDI-LONDON SUMMER SCHOOL DIRECTOR, 2020

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