Children, the Future Users of Robotics

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"The growing presence of digital technology in children's lives requires that we think deeply about its impact. It also demands we consider how we best shape that impact to equip and empower children for success well into adulthood."

Responsible Innovation in Technology for Children. UNICEF Office of Research – Innocenti, Florence, 2022.

Our Exploration of Sustainability in Design

Thingamabobas

We explored found objects, reused old forgotten things- toys, kitchen utensils and clock parts to design Thingamabobas

Rising Spring

Wallner Gallery, Lakeside Arts, Nottingham

Biodiversity at UoN

Undiscovered Island

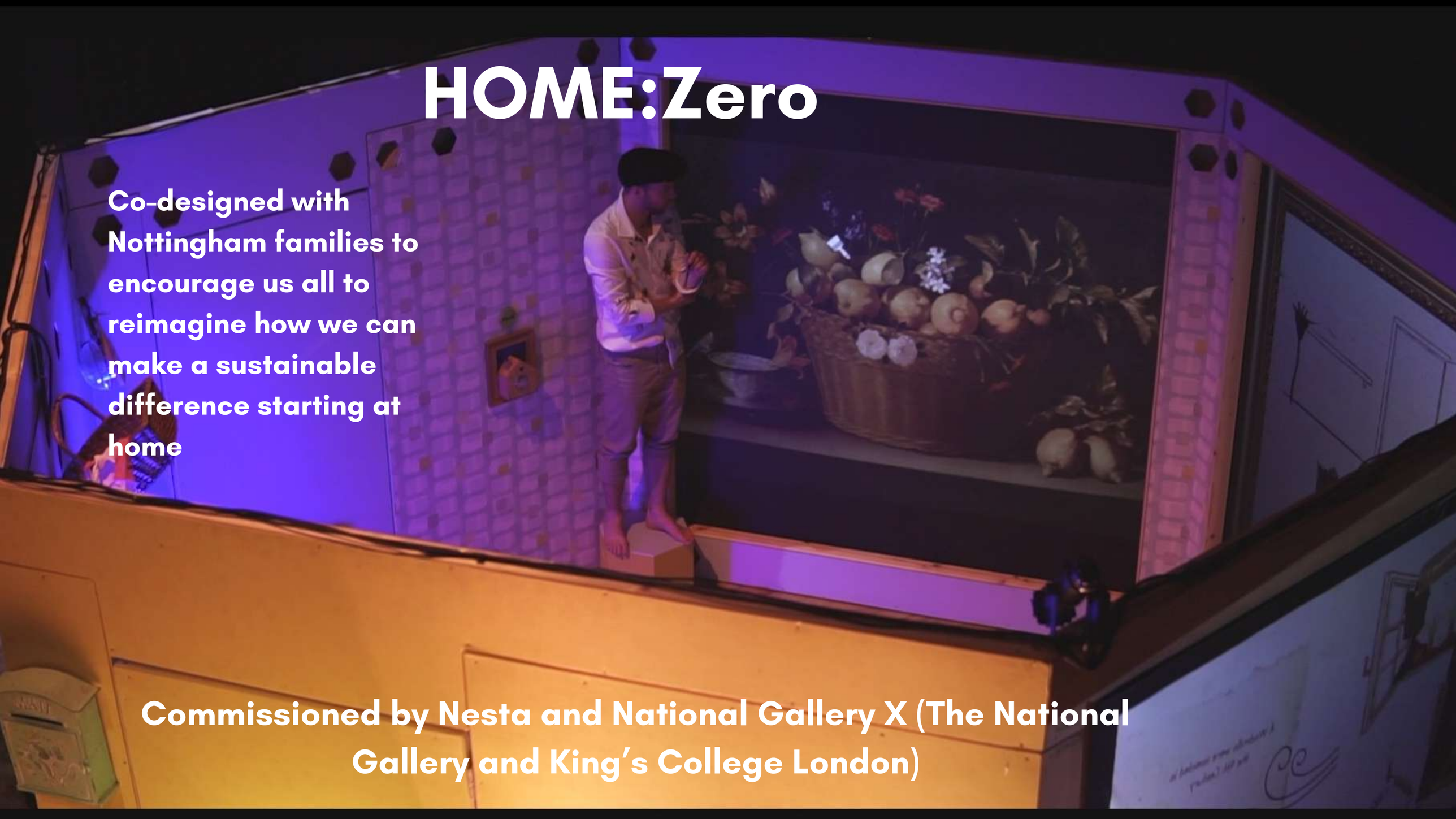
Explores a creative response to the ecological challenges facing warm & cold water coral reefs.

The Garden of just because

Part of the 2020/21 Festival of Science and Curiosity, the Artist in Residence project funded by Arts Council England. Interactive installation where audiences light up the mycelium network to draw attention to its importance in biodiversity.

HOME:Zero

Co-designed with Nottingham families to encourage us all to reimagine how we can make a sustainable difference starting at home



Commissioned by Nesta and National Gallery X (The National Gallery and King's College London)

How can we ensure that children’s insights and needs form the foundation of our work in this space?

How do we strengthen the design of our Mixed Reality environments to promote positive outcomes for children?

Digital Futures Commission

The report identifies seven design principles :

1. Be welcoming,
2. enhance imagination,
3. enable open-ended play,
4. no commercial exploitation,
5. ensure safety,
6. allow for experimentation
7. be age- appropriate

(**Livingstone and Pothong, 2021**)

Robotics, AI & IoT

Promote innovation in the Arts

+

Supporting Children's Play activities

+

Enhancing access for children that are diffcult to reach

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Negative environmental impact

Reinforcing inequalities in society & arts

Children as Human being not Human becomings

Involving children, listening to **their needs** and giving **due weight to their views** are essential principles stipulated in the United Nations Convention on the Rights of the Child.

Children identified agency and empowerment as an important component of their well-being.

Responsible Innovation in Technology for Children. UNICEF Office of Research – Innocenti, Florence, 2022.

Parental consent vs Child consent

Ownership of the data

Digital Futures Commission; it “**requires a balance between protection of children’s safety and protecting children’s right to engage in new and challenging activities,** dispelling unhelpful myths and exaggeration of risk and instead promoting proportional responses to situations that might pose serious harm“ (Cowan, 2020: 14).

Digital Futures Commission

‘Our findings show that **children may consider robots as potential friends** regardless of their knowledge of a robot’s technological limitations and machine working … this implies that it may be possible to reach the potential benefits of **child-robot relationship formation without ‘deceiving’ children into thinking** robots are more capable and social than they currently are…’

C.L. van Straten

Children and Robots: future friends?

@imaginarymakers

THANK YOU

Q&A

Play experiences have been identified: joyful, engaging, meaningful, iterative and socially interactive (Marsh et al., 2020)

OUTDOOR ADVENTURES
TOURING NOTTINGHAM CITY PARKS, AUGUST 2023

RESPONSIBILITY RE-IMAGINED

Chaired by Alan Chamberlain & Dave De Roure