Connecting People, Place and Planet: Can Tactile Embodied Experiences be Created Through Digital Technologies?

By Sophie Mackaness

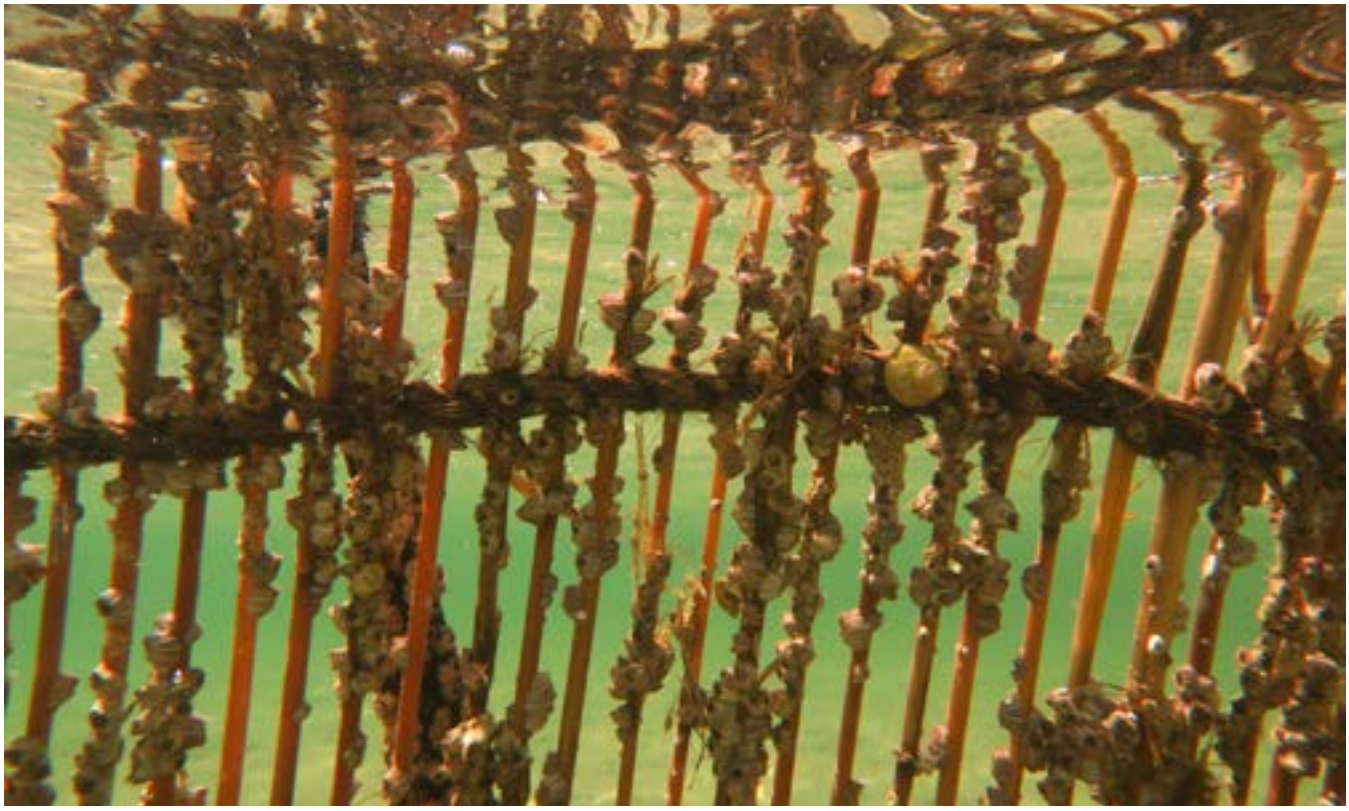

Image credit: Sophie Mackaness

Marine Scientist and Geoscience Research Consultant Sophie Mackaness reflects on the opportunities and challenges of building connections between science, art, and people.

Early in 2021, The New Real, in partnership with the Edinburgh Science Festival, set out to develop a new data-driven project that could both engage a global festival audience (during a COVID-19 lockdown), and inspire positive behavioural change on the climate emergency. While many of us have become used to socialising through the screen and working happily through a webcam, collaborating via virtual environments came with a whole different set of challenges than my usual teaching and research.

A key message I was keen to communicate with our audience is the importance of understanding the interconnectedness of climate issues.

The initial project I was involved with, *'AWEN'*, brought together specialists from many different fields – artists, scientists, researchers, communicators, coders, designers… This was a unique project to be a part of; one in which coming together to work did not actually involve coming together physically. This continued within The New Real even after restrictions on physical gatherings were lifted, as it allowed for a more international collaboration and wider stakeholder engagement.

All the data that currently exists on every aspect of climate change is important and evolving as humans alter our planet at lightning speed to suit our needs.

Communicate to collaborate

It is crucial to note that collaborative creative projects thrive on one essential ingredient – communication. Whether it be voices interrupting and overlapping in a discussion, or ideas sketched out on paper being passed around a table and added to with scribbles and doodles. The human brain works through a combined series of senses and experiences. In the modern age, some of these senses have already begun to include digital forms and online processes but we are still (hopefully) a long way from becoming purely digital beings. And yet this is what we became.

We all noticed the major differences first – who had the worst WiFi, whose cat liked to sit on the keyboard. But the smaller changes didn't become obvious until later: members of the call who were less likely to interrupt and so remained quiet in many meetings; and those who happily filled the airwaves. How many of us were reluctant to directly ask questions of other individuals for fear of pulling them into the unwanted zoom-light? It makes me wonder whose voices would have sung out louder (and whose ideas would have been included) if the meetings had been done round a real table instead of a virtual one.

Nevertheless, we went ahead and combined our knowledge and experiences from many fields to create something unique. Our first specification was clear: the project had to be data driven. And as a Science Festival collaboration, it needed to be backed by solid science and up-to-date global information that would be shared with the general public in an engaging manner. With such a broad framework, however, my task of finding said data was particularly daunting: find the climate data.

The interconnectedness of climate issues

As we know, there are so many aspects to our planet and many contributory forces when it comes to understanding climate change. 'Climate datasets' could include anything from micrograms of mercury stored in the soils of a specific region, to the volumes of plastic being washed into the oceans globally.

Each of these contributing factors to climate change are hugely important – even if their impact on the global or local ecosystem isn't obvious to begin with.

A key message I was keen to communicate with our audience is the importance of understanding the interconnectedness of climate issues. For example, my background in marine acoustics and the impacts on anthropogenic noise pollution on marine fauna, shows that noise can connect climate issues in a powerful way. If we reduce anthropogenic noise (shipping, construction, extraction, traffic…), we reduce these activities and therefore their individual climate impacts. However, the connections between noise and impact isn't necessarily intuitive. Noise doesn't create greenhouse gases, or poison waterways, or collect as a physical entity that can damage ecosystems – so why worry about it?

Questions around the connectivity between climate issues inspired many of the digital prompts inbuilt into The New Real's artistic projects. Each one leading the user to draw their own conclusions about how their experience might impact climate locally (like the tree you rest beneath) or globally (like the ability of the world's oceans to breathe for the planet). Connecting the dots, the artworks emerging from these collaborations encourage exploration of the relationships between air, earth, sea and sound, and how they can have huge impacts at local and global levels.

In this sense, the task of finding climate data becomes much more meaningful. Since each dataset is likely correlated with countless others, basing a planetary future purely on one dataset or aspect of climate change wouldn't show the complete picture. All the data that currently exists on every aspect of climate change is important and evolving as humans alter our planet at lightning speed to suit our needs. Going beyond the platforms developed, art should not just allow the user to learn about climate issues and impacts, it should encourage and explore the essential idea that all of these issues are connected. Connected to each other, connected the planet and connected to us.

Author bio

Sophie Mackaness is a Geoscience Research Consultant, a marine and freshwater biology graduate from the University of Glasgow and the owner of an eco-focused business. Her work in marine biology in Scotland and Australia has led her to assist on many projects, with a particular focus on marine acoustics and the impact on anthropogenic noise pollution on the physiology and behaviour of marine fauna. Sophie's current research focuses on how AI techniques can be used to assess behaviour of deep-sea cold-water reef fish from image and acoustic data. Her work sits within a broader interest in how anthropogenic activity drives changes in climate and how ecologies drive and respond to changes in climate.

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Links

1. Embark on your own *'AWEN'* journey
2. Watch a summary video
3. Watch the event video