



HAK.io

Hacking the
Anthropocene Kit



Information Booklet
and Guide to the
Hacking Kit



What is the Anthropocene?

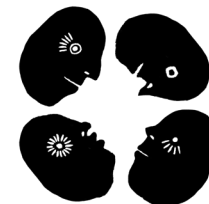
The Anthropocene is a term that refers to how human actions have significantly changed the Earth's environment, including causing climate change, loss of biodiversity, and altering the planet's geology.



'Learning with the Land: Dispositions for Hacking the Anthropocene' responds to a call to action from the most recent UN Intergovernmental Panel on Climate change (UN IPCC) report that urges the use of scientific, local, and Indigenous knowledges for adaptation and mitigation to the ongoing climate crisis (UN, 2021). To achieve this, SWISP Lab are collaborating through strategic partnerships with Science Gallery on a global scale; leading a community engagement project that builds on the youth-led, creative, practice-based, speculative inquiry.

SWISP acknowledge the Traditional Owners of the stolen lands on which we live, research, teach, and learn. We walk gently on these lands and offer respect to all Indigenous Peoples, past and present. In the spirit of reconciliation we acknowledge the Traditional Custodians of Countries and Lands throughout Australia and the world and acknowledge their continuing connection to land, sky, sea, and community.

WHAT IS HAK.io?



The Hacking the Anthropocene Kit (HAK.io) is the skeleton of a speculative inquiry that asks a pressing question of our times: With the whole bloody catastrophe laid out before us, at what point do we intervene? In response, we employ 'hacking' as a speculative method for collaborative and creative problem-solving with young people in seven sites across the globe, starting at Science Gallery Bengaluru. An aim is to codesign pluricultural climate curriculum rooted in local issues yet connected to global conversations in partnership with The Science Gallery International Network.

HAK.io sets out to challenge settler-colonial narratives about Land, knowledge, technology, and identity in Anthropogenic times, where human activities significantly impact the ecosystems of the planet. While the climate crisis defines the Anthropocene, its outcome remains uncertain. We aim to provoke meaningful conversations and anti-colonialist narratives through a/r/tographic inquiry across physical and digital spaces through 'Hacking the Anthropocene.' We also address the problematic human-technology-land relations that perpetuate colonisation and extraction in digital realms, challenging the assumption that the digital world exists solely in a nebulous cloud, as digitized data significantly shapes our dematerialized thinking about the digital during planetary collapse.

Bridging art and science, the Hacking the Anthropocene Kit was designed in conjunction with Science Gallery and works best when used in response to one of their exhibitions. Science Gallery Bengaluru's Carbon exhibition has a list of resources, artworks, and installations responding to the theme of carbon and climate change, and is a great starting point as an input into a Hacking the Anthropocene workshop.

Through speculative inquiry methods of collaboration and creative problem-solving, HAK.io sets out to challenge settler-colonial narratives about Land, knowledge, and identity in Anthropogenic times, where human activities significantly impact the environment.



WHAT IS IN THE KIT?

Method Cards:

The kit contains a range of Method Cards (Method 0 to 13) to drive the Hacking journey. These methods prompt different kinds of *al/r*tographic exploration and can be used in any combination. *Method 0: Off-piste* encourages participants to not be constrained by the methods provided and to imagine something different if their inquiries lead them that way.

How to Use Card:

Sense, think, wonder, fear/hope. These prompts can be used to provoke deeper interaction and critical engagement at any time. These thinking routines, when repeated, promote critical inquiry by teaching individuals how to observe, analyse, organise ideas, reflect and question.

'What if...?' Cards:

They foster cognitive, sensory, and affective ways of knowing. These cards are played to extend thinking and action.

Journals:

A journal is available for each participant in the group to use as they wish. The thinking routines (sense, think, wonder, fear/hope) are embedded to promote critical and creative inquiry.

Self-Care Act card:

Ensuring we are caring for our future selves is an important part of Hacking the Anthropocene. Use this card to re-centre participants within their support systems.

Poster and Grounding Stories:

Use these stories to centre participants within themselves and within Country. They are great to use at the start of the session to bring about mindfulness before the hacking begins.

Zines:

Participants can make their own using the template. There is also a 'How to make a Zine' flyer if you need to make more. Use the Zines with *Method 7: Zines*.



Stickers:

A range of stickers can be found within each journal. Use these to engage in the creation of stories, narratives, and artmaking, as well as coding information into coloured themes and for *Method 2: Emoji Stories*.

Collage Pack:

A range of collage materials (courtesy of thatpaperjoint.com) can be found in the collage pack. They support *Method 12: Collage it*.

Colour Me Emotional:

Plutchik's wheel of emotions is a great way to visualise different feelings. Use this chart with *Method 1: Emotion Mapping*.

Puppets:

Three wooden puppets used to bring *Method 13: Performance* to life.

Art supplies:

A case with a pencil, glue stick, scissors, post-it notes and tape to support the hacking journey.



PLAYING THE KIT



It's important to note that this Kit is not static, there is no right or wrong way to go about playing. The magic happens when you lean into the unknown and allow the game to take its own path. However, this structure is here to guide you if you get stuck.

Beginning Phase:

Before beginning game play, start with a short introduction about the Anthropocene, emphasising its multi-dimensional nature, including its racialized, gendered, contested and settler-colonial aspects. Interact with Science Gallery Bengaluru exhibitions, using the Carbon Exhibition resources available online to further set the scene of the Anthropocene, climate change, and artmaking.

Share stories:

We always start with shared climate stories to set the tone and context of the game. See 'What is a Climate Story' on the proceeding pages of this booklet for more information on climate stories. It works well when participants are given the opportunity to write them down and date them before being invited to share.

Now the scene and tone has been set, **break participants into groups of 3 to 5 people**. Ensure there is diversity among the groups based on the stories shared and the backgrounds of individuals.

Hand out a Hacking the Anthropocene Kit (HAK) to each group and let them explore its contents.

Game Play Phase:

Card Draw: Each group starts by drawing a card from the Method Cards deck. Each card drawn presents a research method or provocation for the team to address. You can also prescribe a card (or combination of cards) of your choosing. Sometimes it's a good idea to pair two cards, e.g., *Zines* and *Collage It* go really well together.

Iterative Rounds: The previous steps can be repeated in multiple rounds, allowing teams to draw new cards (or by prescribing new cards) to build upon previous ideas.

Brainstorm and Develop: Groups spend a fixed amount of time (e.g. 20-mins) discussing the cards theme/instructions, relating it to their own experiences, and formulating a speculative solution or creative response.

Feedback: Other groups provide feedback, critique, or build on the presented ideas, fostering a collaborative and iterative learning environment.

Presentation: Each group presents their ideas/findings/products to each other in a 5-minute pitch format.

HINT: Let the themes and ideas that come up during the rounds progress naturally, if it takes the game play in a new direction, don't be afraid to go Off-Piste.

PROVOKE: Use 'What If...' Cards and Thinking Routines (Sense, Think, Wonder, Fear/Hope) as provocations to push ideas further.

Critical Reflection Phase:

After the game play rounds, conduct a **group reflection session**. Using the Thinking Routines in the journals, Sense, Think, Wonder, Fear/Hope, ask participants to critically reflect on the ideas and themes that emerged during game play. Prompt participants to share their reflections with each, discussing how the ideas and themes might be extended beyond the workshop and out into the real world. What kind of collective action, initiatives, or projects can come from the workshop?

To wrap up the workshop, get participants to **share feedback** on their experiences. HAK.io is a ever-evolving tool and the feedback can be used to help shape future hacking workshops.



WHAT IS A CLIMATE STORY?



At what point did you realise we lived amidst a climate collapse/crisis/change? Where were you? What were you doing?

A climate story refers to a narrative that explores and communicates the impacts, challenges, and experiences related to climate change. Climate stories often emphasise the human dimension of climate change, highlighting how it affects people's lives, livelihoods, and wellbeing. They may also explore solutions, resilience, and efforts to mitigate the impacts of climate change. By telling compelling and relatable stories, the goal is to engage a wider audience and inspire action toward addressing climate related challenges. Climate storytelling plays a crucial role in building empathy, fostering understanding, and motivating individuals and communities to take steps towards a more sustainable and resilient future. It helps bridge the gap between scientific data and public understanding, making the complex issue of climate change more accessible and relevant to people's everyday lives.

HINT: Method 3:
Hacking Cultural Stories
disrupts the stories
that are told by the
media, politicians, and
big businesses. What
stories will we tell?

Watch the 'Faces of
Climate Resilience' for
insight and information



My boyfriend lives 350 kilometres away from me.

He travels to Bangalore once a month. Well, we mostly text. We flirt online. In solitude.

Our butterflies of love are probably stored somewhere far away from both of us.

In a data storage facility. Imagine the carbon footprint of that thing.

Our declarations of love, our fluttering butterflies, all digital, all heating up the earth.

Slowly.

Love is code bottled up, consuming energy.

Love is an exhaust pipe, constantly chugging out smoke, in search of the other.



HAK.io participant

SENSE/ THINK/ WONDER/ FEAR/HOPE



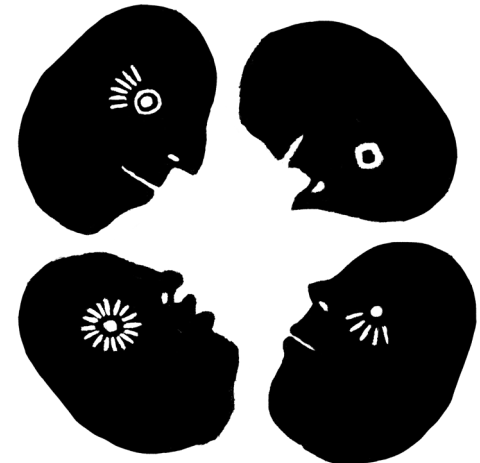
Critical engagement and metacognition are the cornerstones of the Hacking the Anthropocene Kit. Adapted from Harvard Graduate School of Education's Thinking Routines, this activity enhances speculative design workshops by providing a dynamic framework for thinking methods that fosters a temporal imagination and an attunement to bodily affect.

The Sense, Think, Wonder, Fear/Hope routine can occur at multiple points of the hacking workshop to guide hacking inquiries. This cultivates an approach to speculative design thinking that incorporates sensory observations and emotional responses. It connects cognitive, sensory, and affective ways of knowing.



What were you sensing?
What do you sense now?

What were you thinking?
What do you think now?



What are your
wonderings about?
What has made you wonder?

What makes you fearful/
hopeful?
What fears and hope do
you have now?

A CASE STUDY: CLIMATE STORIES BETWEEN ART AND SCIENCE



SWISP Lab and Science Gallery Bengaluru (SGB) in partnership with the University of Melbourne facilitated two workshops at Infosys Science Foundation to hack living in Anthropocene. We invited young people aged 15-28 years old to join us at the intersection of creative and scientific inquiry and explore the ways that we become scicurious together in a creative atmosphere.

A hackathon is a chance to work on big, complex problems. As SGB opened its doors for the Carbon exhibition, we explored our relations to carbon and climate by speculatively playing with the ideas that erupt between art and science.

SWISP Lab and Science Gallery hackathons centre the HAK.io game to activate a new ecosystem of learning around issues of climate in/justice, digital in/justice and intergenerational in/justice and meaningful action. We bring young people together to participate in the world in meaningful ways and explore what we need is a community to transform education policy and practice for just climate and digital futures. To do this we play with concepts that problematise art-science collisions and traverse (knock through) disciplinary boundaries.

What happens when we play at the intersection of creative and scientific inquiry to hack big, complex problems that arise from living in Anthropogenic times?

What did it look like?

1 Carbon Stories and Bonding

We began with a Carbon Icebreaker. These HAK.io gameplays are a mash up of Mediator designed SGB curriculums and HAK.io playtesting.

Everyone generates a word in response to the prompt; 'What role does Carbon play in daily life?', and writes it on a post-it-note.

What if the group gets stuck? To help with this, ask Chat GPT what words might be useful to think with.

After generating a word, each person moves around to locate and catch a partner that has a word that relates to form a bond, just as carbon does. In this activity carbon bonds are created, and knowledge is shared.

2

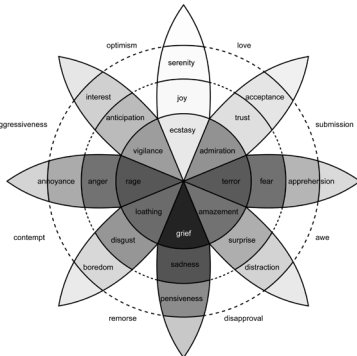
Climate Stories

After we created our Carbon bonds, to get to know each other we began by locating our climate stories.

What is your climate story? Think of a story. Ask, at what point in the chosen story do I intervene? Change part or all of the climate story. What does your climate story say about Country, colonisation, climate collapse and/or digital disruption?

Using the *Method 1: Emotion Mapping* card we began to do our co-research with participants and code the stories using 3 sheets of HAK.io data stickers to tag 'story-data'.

This process of visual data mapping and coding is a process from data science that SWISP Lab uses to work with co-researchers in HAK.io work. Data mapping bridges the differences between two digital systems, or data models.



HINT: Method 5: The Hundreds can help generate words and stories surrounding the climate if you become stuck.

To assist in the visual data mapping and coding process, along with using the HAK.io data stickers, the Colour Me Emotional card based on Plutchik's model of emotions can be used to map common themes and emotions between climate stories which can drive the potential direction of the workshop.



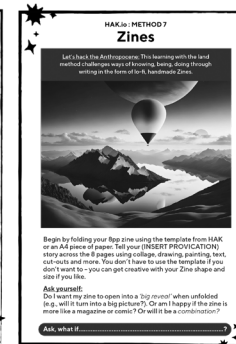
3

Climate Zines and Collaging

After visual data mapping and coding, we combined the *Method 7: Zines* and *Method 12: Collage It* cards to create climate zines.

SWISP Lab use collage as method as a 'way in' to exploring climate stories and communicating ideas about time, place, space and concepts beyond the workshops.

Collage is an accessible method for young people as co-researchers that prompts deeper and often more complex conversations about climate impact.



Combining collage with making a zine, participants get the opportunity to further extend their understandings about climate impact, leading on from their climate stories. Zines can then be presented in an exhibition and presented to each other for extended conversations.



4

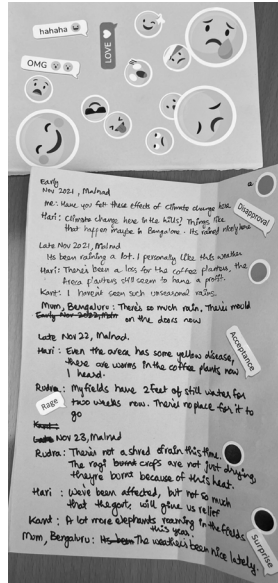
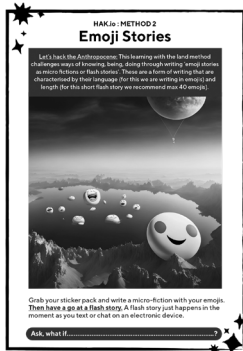
Performance or Emoji Stories

These workshops included the play of the *Method 13: Performance* card where teams selected a climate story to perform in 1 minute.

In this method, we ask each team to locate an object from the climate stories and to consider the thinginess of that object's life and weave it into narrative structure of the performance.

We have also found the *Method 2: Emoji Stories* card an effective provocation as this point of hacking workshops. Emoji stories utilise creative language and micro-fictions to further explore how we might hack the climate crisis.

We ask: "Are there ways of thinking with an object and creating a reciprocity between you and an object's materiality?"



5

Climate Badges

Our final method of the HAK.io workshops are always badges. Why? You can pin them on your bag or clothing or just leave it on the bus and make a statement.

To end our climate stories between art and science we ask all co-research – what do you want to walk away with today – what is your action?

At each of these workshops we asked co-researchers, using the *Method 9: Badges* card, what badge they needed to wear out of the room on that day. SWISP Lab knows how powerful badges are for engaging with the visual tradition of rebellion because they make a quick and fast statement. What we love about ending a workshop with badge making is the act and action of drawing, writing, and talking about what it means to Hack the Anthropocene.



Tiny activists refer to small actions, like creating badges, by individuals to address social or environmental issues and promote positive change. These actions are accessible, manageable, and while individually small, collectively can have a meaningful impact on creating a more just, equitable, and sustainable world.

FOR YOUNG PEOPLE, BY YOUNG PEOPLE

The Hacking the Anthropocene Kit (HAK.io) is created to be an evolving tool designed by young people, for young people, highlighting the importance of interdisciplinary and anti-colonial collaboration. Therefore, feedback on the kit is an integral part in its ongoing re-creation and participants are welcome to share their feedback to the online portal through the QR code below.



HAPPY
HACKING!

This project is made possible by Learning With the Land (SSHRC) Grant number: GR023366 | Funding period: 2022 – 2025; The University of Melbourne | India Diversification | Faculty of Education co-investment | Funding period: 2023; Melbourne Post-doctoral Fellowship | Funding period: 2022 – 2025.



 **SWISP**

