Input vs. Output

Visual Art | Unit 2: Art as code

STEM Links: Science, Digital Technologies

Cover: **Hochschuh & Donovan**. *Cybernetic Intimacy.* 2023. [detail]. 4 of 15 Hexapod-Robots with Directional Sound.

Contents

CURIOCITY BRISBANE

Did you notice the spelling mistake? *Curiocity* is actually a *portmanteau*, or a blended word made of two or more other words. Portmanteaus take on the meaning of the words they are made from, and the English language is full of them. Portmanteaus you might use include, *fortnight* (fourteen and night), *smog* (smoke and fog), *twerk* (twist and jerk), or *Pokémon* (pocket and monster).

What two words have been blended to make Curiocity, and why do you think World Science Festival Brisbane has used this portmanteau to name their public art program?

Putting things together to make something new is the definition of creativity. *Curiocity Brisbane* 2023 is jam-packed with multi-disciplinary artworks that blend science, technologies and art in creative and curious ways.

As you engage with these public artworks, what new things will you discover, and how will you respond in your own creative ways?

Input vs. Output

What do you think about artists using artificial intelligence (AI) to make, or contribute to making, their artworks? Do you think it is clever to make interactive art that learns from an audience to improve engagement? Or is it cheating, like using AI chatbots to write assignments for you?

Every corner of the world is buzzing with questions about ethical use of AI, with proponents of the technology claiming it will improve wellbeing and happiness. Other people are concerned that AI will replace human jobs, or even grow *too* intelligent and turn against us.

Artists have joined the conversation, breaking traditional art-making conventions and forcing us to redefine what an artwork is. Is this the kind of art you imagine when you think about the future?

Do you think AI can be used to stimulate curiosity and improve humanity? Do you agree with what Albert Einstein says in a letter to inventor, Rudolf Goldschmidt:

> *A little technology here and there can interest thinkers everywhere. And so I boldly think ahead: The two of us will lay an egg.*[i]

Or do you share similar fears to Einstein when (almost 20-years later), he writes this in a letter to his friend, psychiatrist, Otto Juliusburger:

> *I believe that the abominable deterioration of ethical standards stems primarily from the mechanisation and depersonalisation of our lives, a disastrous by-product of science and technology. Nostra culpa!*[ii] *(Nostra culpa* roughly translates to *our fault)*

Featured artworks

Blast Theory (UK). *Cat Royale*

Hochschuh & Donovan (Germany). *Cybernetic Intimacy*

Madeleine Flynn and Tim Humphrey. *Pivot*

Curriculum links

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Key inquiry questions

- Developing — how do artists generate solutions to visual problems?
- Researching — how do artists react to stimulus?
- Reflecting — how do artists consider ideas and information, media techniques and processes?
- Resolving — how do artists communicate individual ideas as visual, written or spoken responses?

Unit objectives

1.	implement ideas and representations to decode artworks and communicate in visual forms
2.	apply literacy skills to communicate understanding of visual language, expression and meaning in the work of self and others
3.	analyse and interpret art practices through the formal and cultural contexts
4.	evaluate art practices, traditions, cultures, and theories to examine how diverse symbol systems are used by artists to communicate meaning
5.	justify viewpoints using evidence of communication in artworks
6.	experiment in response to symbol systems used by artists to communicate meaning
7.	create multiple meaning and representations through knowledge and understanding of materials, techniques, technologies and art processes
8.	realise responses to demonstrate how meaning is communicated through art forms.

Learning objectives

Students are learning to:

- develop ideas for visual responses that communicate through codes, symbols, visual language and art conventions
- represent subject matter using coded visual language to convey ideas
- reflect on the impact of social influences in the construction of meaning
- understand how artists are influenced by historical and cultural predecessors
- realise ideas in making and responding tasks through the formal and cultural contexts to communicate innovative representations of subject matter.

Success criteria

Students will be successful when they can:

- experiment with a range of visual responses which demonstrate manipulation of materials and processes to communicate meaning
- decode expressive language in the work of self and others
- analyse and interpret artworks through the formal and cultural contexts
- complete reverse chronology investigations which show the relationships between contemporary art practices and innovations in the art and science communities
- apply literacy skills to evaluate the effectiveness of technologies, techniques and processes to communicate ideas
- realise a response which communicates and justifies their ideas and viewpoints.

Teaching notes

Timing

12 hours

Materials

- student choice of 2-dimensional media and surfaces, digital editing software, 3-dimensional media
- devices and internet connection

How to use

Students view featured artworks in situ, prior to completing these activities. Activities can be modified for remote learning.

To enrich this experience, Queensland Museum collection items or learning resources may be accessed. Creating a free account means you can save, sort, manage and share your favourite collection items (audio and video, objects, events, fact sheets, images, learning resources, loan kits, etc.).

Learning activities

Responding

Students engage in the inquiry learning process to analyse and interpret visual communication and meaning within Blast Theory's *Cat Royale,* Hochschuh & Donovan's *Cybernetic Intimacy* and Madeleine Flynn and Tim Humphrey's *Pivot.* They could choose to focus on one or multiple artworks.

Find further information at the artists' websites, Blast Theory, Hochschuh & Donovan, and Madeleine Flynn and Tim Humphrey.

Developing

- What is the central problem or idea that the artwork attempts to solve?
- How have the artists used robotic elements as a significant form of expression to communicate meaning?

Researching

- Describe the artists' relationship with different communities (ethical bodies, scientific communities, electronic artists), and how they have used these to generate a response. What conversations are they emphasising, challenging or provoking? Use language about the **cultural context** when forming a short response.
- Engaging with their body of work, comment on the artists' diverse art-making approaches. How have they demonstrated considered use of materials, techniques and display? Use language about the **formal context** when forming a short response.
- Comment on the communicative value of the artists' choice of art materials and processes.

Reflecting

- What scientific or technological literacy, or knowledge of art conventions and symbols are required in the decoding of this work?
- Who else would have a perspective or viewpoint about the subject matter within the artwork, and how might this alter the representation?
- Describe how the dialogue between artist and audience is impacted by the artwork's inclusion at the World Science Festival. How would the work be received in a different context?

Reverse chronology

- Follow a logical pathway to investigate artist influences. A reverse chronology investigation should highlight predecessors in art (digital and non-digital) and science communities, who have impacted practice.

Further research

- Anne Nobel, Brian Fuata, Céleste Boursier-Mougenot, digital archaeologists, Georgie Pinn, John Wynne, Peter Thiedeke, *Will Self-Taught, A.I. Powered Robots Be the End of Us?*[iv]

Making

Students experiment and resolve artworks in response to investigated works.

Developing

- Students test new ideas to formulate a personalised inquiry. They experiment with various materials and approaches. For example, they could:
    - observe and record animal behaviours at mealtimes, using colour and line in a series of expressive artworks which demonstrate innovative and unconventional approaches with mark-making
    - develop an audio symbol system to represent personal data (e.g., using information from recorded footage, activity tracker, smart watch, phone, or internet browsing history) and create a soundscape
    - record and remix the voices or audio of other behaviours of family members
    - investigate the interests or behaviours of class peers, surveying them to document common audio, colours, textures, patterns (macro), etc. and create a digital collage
    - create a 30-60 second film in response to Blast Theory's exploration of ethics in artificial intelligence (*does AI really improve wellbeing and happiness, and for who?*).
- Students produce brief context statements for each experimental work, to demonstrate understanding and use of the **formal** and **cultural contexts**.
- Consolidating their experimental work, students articulate a personalised inquiry question.

Resolving

- Students refine and resolve an idea (using media of their choice) to extend one experimental artwork into a resolved work.
- Students display their work to enhance their intended meaning and invite audience engagement.

Reflecting

- Students write didactic artist statements which communicate how they:
    - responded to Blast Theory/Hochschuh & Donovan/Madeleine Flynn and Tim Humphrey's (and others') work
    - interpreted their own focus and inquiry question
    - developed and investigated the inquiry question
    - realised a resolved work.

Endnotes

[i] Einstein, A. (1928). *Letter to Rudolf Goldschmidt.*

[ii] Einstein, A. (1946). *Letter to Otto Juliusburger.*

[iii] Queensland Curriculum & Assessment Authority (QCAA) (2019). Visual art general senior syllabus 2019. Available at: https://www.qcaa.qld.edu.au/senior/senior-subjects/the-arts/visual-art/syllabus

[iv] World Science Festival (2019). Will self-taught, A.I. powered robots be the end of us? [festival program]. Available at: https://www.youtube.com/watch?v=IHc5Zt7qT6o