

Mapping Emergent Tech Workflows at the Glasgow School of Art: A Service Design Approach to Peer Knowledge Sharing

Master's Thesis - August 2025 - Annabelle Webb

MDes Service Design, Glasgow School of Art





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Abstract

With growing concerns around AI and the job market, students are feeling more pressure than ever to keep up with emerging technologies. Many feel unsure, overwhelmed or disconnected from how these tools relate to their creative work. This project looks at how students are using AI, what they think about it and how it makes them feel. I also spoke with educators to better understand how the university is responding to changes in skills, expectations and academic integrity.

What came through was a clear gap between how students are actually using these tools and how they are being supported or spoken about in academic spaces. In response, I designed a system called CUBE that fits into existing university routines and encourages reflection, peer learning and sharing. The goal is to help students build confidence and curiosity with new tools, while opening up more space for experimentation at GSA.



Project Planning

Phase 1

Desk research Literature review Engagement plan Facilitation guide

Phase 2

Understanding

Interviews Engagements Analysis

Phase 3

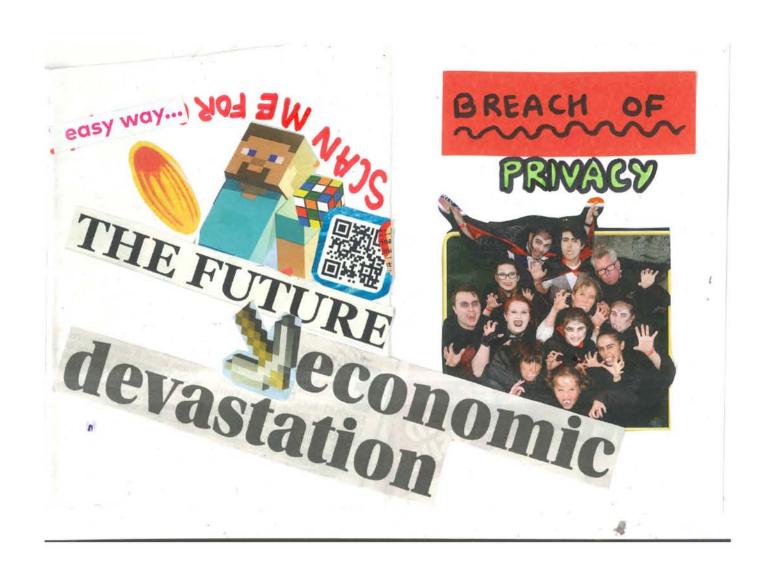
Delivery

Continued analysis
Validation
Final prototype
Presentation of research



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When teacher Betty Prictor died unexpectedly following a routine operation, her close friends Craig Mollison and Jane Spiers wanted to build something joyful on Orkney in her memory.

She was an avid reader, so a Tingwall farmer donated an old, derelict bothy to their cause and they set to work transforming it - with the help of their talented pals, who created sculptures, paintings and stained glass - into Betty's Reading Room.

This cosy little place near the ferry terminal has a wood-burning stove, oil lamps, comfy sofas, biscuits and, of course, lots and lots of books.

Visitors are welcome to sit and read for a while, and they can borrow books to take home or even keep, if they like.

Donations of second-hand books are welcome to help keep the shelves well stocked.

Reviews on TripAdvisor score it 4.5 out of 5 with one saying, "This unique reading room gives you a wee hug. On a damp day in Orkney it's a perfect stopping off point for a rest, to pick up a good book and soak up the charming atmosphere."

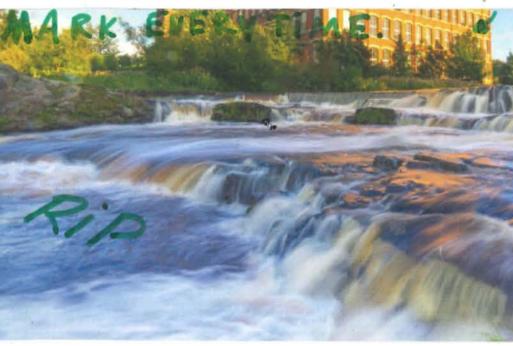
It's a gorgeous tribute to a friend, full of warmth and love and colour. What a lovely way to TEXTB

GOTNO TOE A WHAT IS TALKING ABOUT BUT IBFLIEVE IT TO BE TRUE

FINDINGS STATISTIQUES REFERENCES

AND EASY THAT





Phase 1 Context

Context

Al is here how do we use it?

What we know

- students are using Al
- they are using it at the expense of their personal learning
- they are using it to enhance their personal learning

What we don't know is how specifically they are using it in their workflows to complete a variety of tasks, and how this is affecting their learning and engagement with course materials.

I aim to research how students and professors are currently using AI and what their thoughts are on the technology.



How can AI be used

ethically in the classroom to

enhance learning and engagement

with course materials?

Framing Inquiry

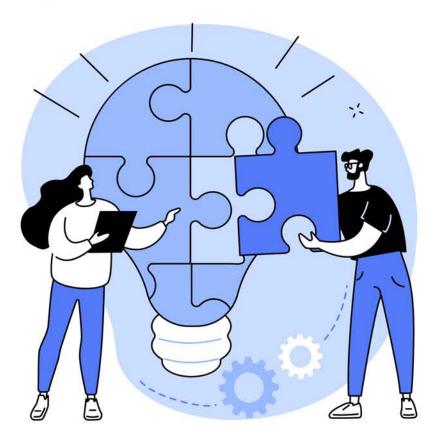
This project is framed within a design research approach to explore how students are engaging with AI as a learning tool. The aim is to create open, critical conversations around the evolving role of AI in academic contexts. Drawing from qualitative design research methodologies, the project will use methods such as contextual interviews, mapping, and prototyping to investigate both student practices and institutional responses.

The research will include interviews with approximately 10 students and 5 professors to analyze how students are incorporating AI into their academic work, and how professors' grading criteria and academic standards are adapting—or resisting—these changes.

Additionally, a design-led engagement using collage and zine-making workshops will be conducted with students. These sessions will serve as a creative and participatory method to surface students' perspectives, experiences, and values related to AI in education, offering a space for reflection, critique, and dialogue.

As partners on this project I hope to engage with

- GSA's director of emerging technology Paul Chapman
- GSA library services
- 10 students
- 5 professors



GSA Positioning Al Policy

Can be
Beneficial to
Learning
Process

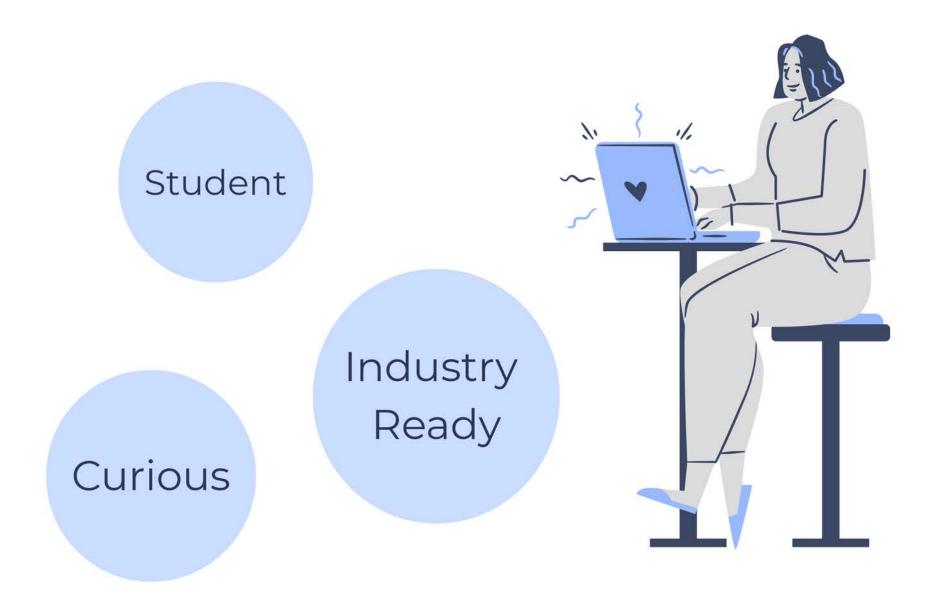
GSA's Position

GSA believes that the use of AI can be beneficial as part of the learning and development process. However, it is important that students are aware of the limitations and risks when using AI tools.

Unless explicitly stated within a course, students are not permitted to submit work for assessment that has been generated by a chatbot or generative AI tool. This includes all forms of assessment and formats in which such work could be produced, including text, imagery, video, sound, animation, or any other outputs. Such work will be considered as academic misconduct, as the words or artefacts generated are not the students' own. The only exception to this is where the course permits the use of AI generated work with appropriate acknowledgement and citation of its

Awareness of Limits and Risk

My Positioning



Late-Majority Tech Adopter

My positioning and approach to the project is largely one of curiosity. I am usually not an early adopter of technology. However, AI is being used in industry (inside and outside of design), so given the opportunity to do a deep dive, I embraced it.

As a student I want GSA to continue to lead in design research. And I have a unique position as someone with lived experience on GSA's campus.

on een op zondagmid As if graduating weren't daunting enough, now students like me face a jobs market devastated by AI

9 menial chores ChatGPT can handle in seconds, saving you hours

than just answer questions. Here's how the AI can save you boatloads of

How can GSA educate students and beat the negativity?

Morrien. Vol is

Your Resume for Al Scanners

of our friends use AI in olwork'

30 april om 20.00

provision

opening van het h

Jraduates Need to Do to Compete with AI in the Job Market

As Al tools like ChatGPT replace entry-level tasks, college grads face a new challenge. Here's what you need to do to stay relevant and competitive in today's job market

LinkedIn cofounder Reid Hoffman says Gen Z graduates are 'enormously attractive' to employers for one reaso ease job loss pain

Technology Artificial Intelligence

CLIMATE

narte welkom hij d

What used to take a junior team a week can be done in a day by a student with Al

AI should be the making of coursework - not its breaking

The argument that AI spells the end of coursework is short-sighted and ignores opportunities Which Workers Will A.I. Hurt Most:

The Young or the Experienced?

Amid layoffs at Microsoft and other large tech companies, experts are debating whose jobs are most likely to be spared.

e did the math on Al's energy tootprint. Here's the story you

> These Jobs Will Fall First As Al Takes Over The Workplace

Xbox producer tells staff to use AI to

Ite-

What is AI?

Artificial Intelligence (AI)

The overarching field encompassing all aspects of creating machines or systems that can perform tasks requiring human-like intelligence.

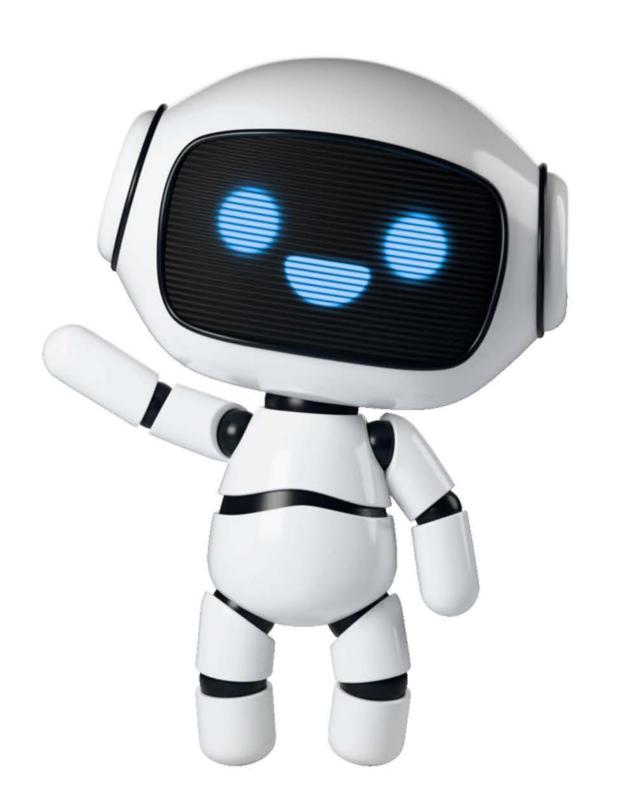
Machine and Deep Learning

A subset of machine learning that uses multiple layers of algorithms (specifically neural networks) to solve complex problems.

Large Language Models (LLM)

A subset of machine learning that powers many Generative AI applications by leveraging patterns learned from large volumes of data.

ChatGPT - Generative tools



What are LLM's

Popularity Robot

"Al is something that regurgitates all information that's been put into it, and it's just spat back out on us like it is essentially soulless"

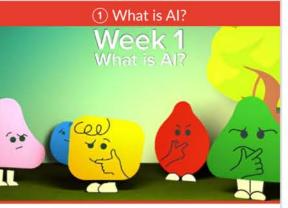
GSA professor

telling you what they think you want to hear



Canvas Course

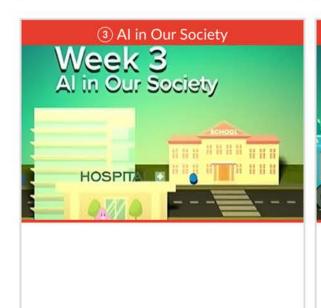






GSA's current AI Resource is a Canvas course that is self paced and optional

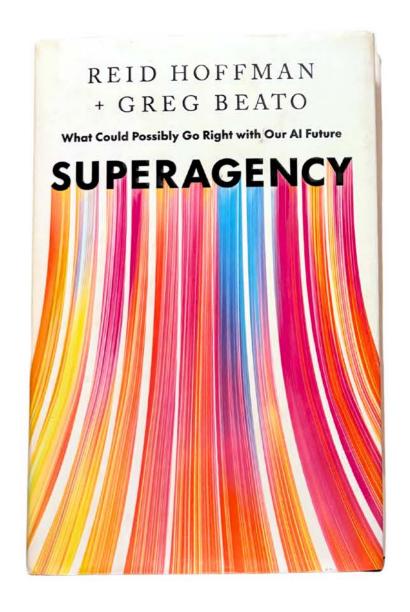
It lacks nuanced information about how AI will disrupt design and Art industries

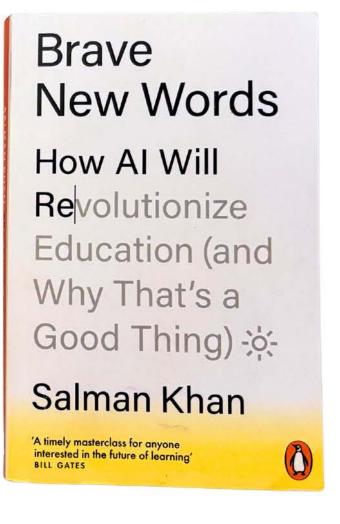






Literature Review

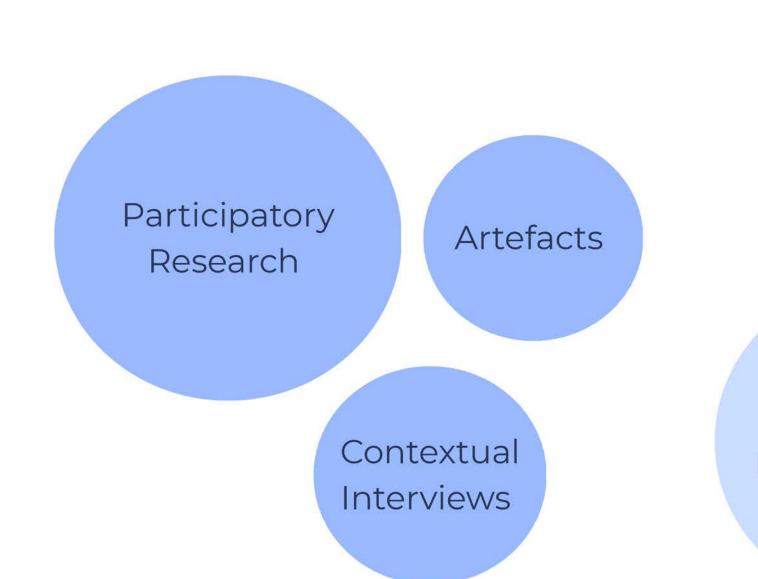




Most of the reading I did around AI and emerging technologies took a speculative angle. The ideas were probable, but still based on imagining what is coming rather than what is happening now. A lot of the writing focused on the idea that agentic models will be the key to using AI in safe and ethical ways within education. These models suggest that students, staff and institutions should have more control over how AI is used and understood, rather than relying on automated systems that make decisions for them. While this way of thinking is important, it also made me wonder what it means for students at GSA who are using AI right now.

For this project, I considered speculative design as a way to explore these futures, but I have taken a more grounded and participatory approach. Using service design, I am looking at the relationships, systems and behaviors already happening at GSA. I am also including student experiences and feelings through participatory methods like interviews and workshops. This helps bring the conversation back to the present while still leaving space to imagine what could come next.

Project Approach



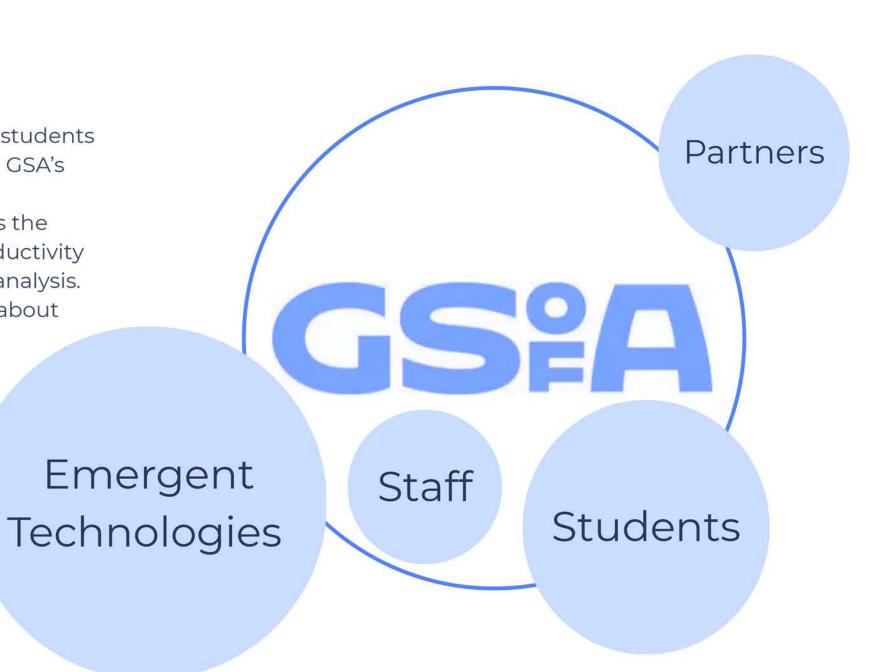
Speculative Design Approach

Constructivist Learning Theory User-Centered Design

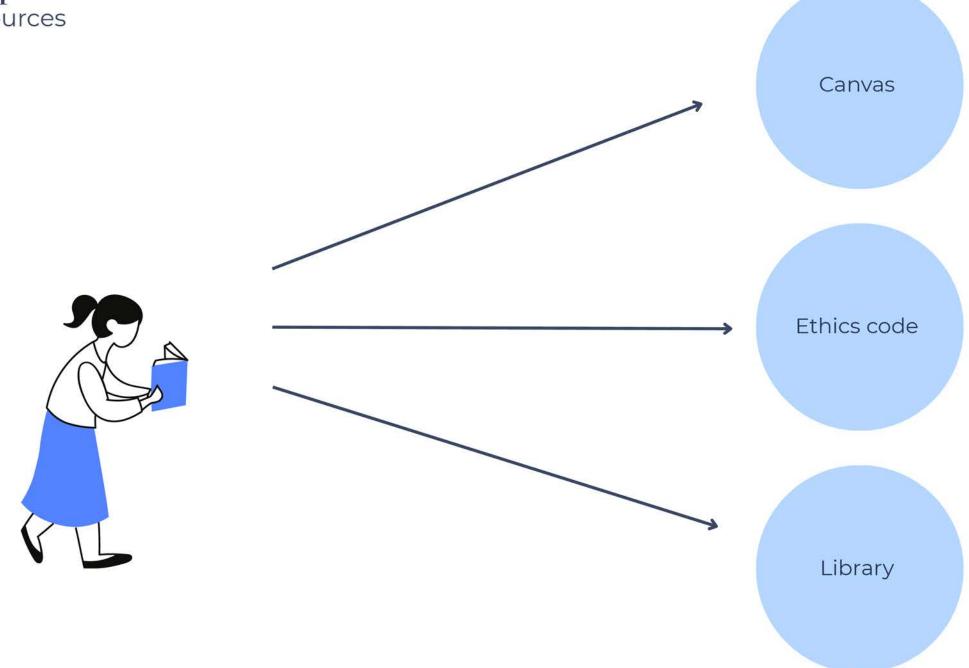
Stakeholder

GSA's stake in emergent technologies

Glasgow School of Art, its staff, students and partners all have a stake in GSA's engagement with emergent technologies. Al specifically has the ability to radically improve productivity of writing, data collection and analysis. For students and partners it is about leading and meeting industry standards.



Journey Map GSA and Al resources



How can AI be used

ethically in the classroom to

enhance learning and engagement

with course materials?



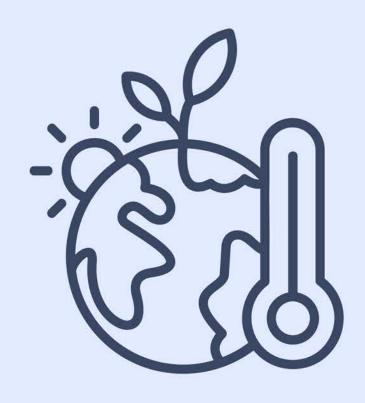
SCHOOL OF INNOVATION AND TECHNOL THE GLASGOW SCHOOL & ARE

Phase 2 Understanding

Focus Areas





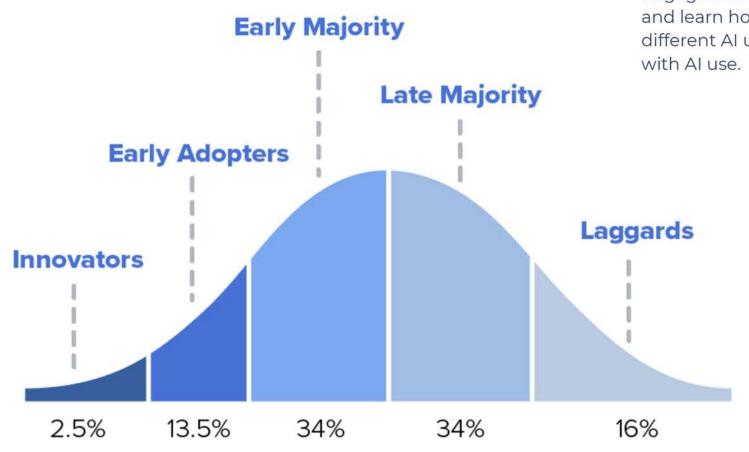


Climate



Ethics

Archetype Rogers Innovation Adaption Curve



My original thinking for archetype use on this project was to use Rogers Innovation Adoption Curve. I set up my engagements and interviews to try and learn how different people with different AI use levels are engaging with AI use

After conducting my research I found that everyone currently using AI is an early adopter.

INNOVATION ADOPTION LIFECYCLE

Engagement Plan Interviewed 6 Academics

Have you ever used AI in a context where you were submitting something?

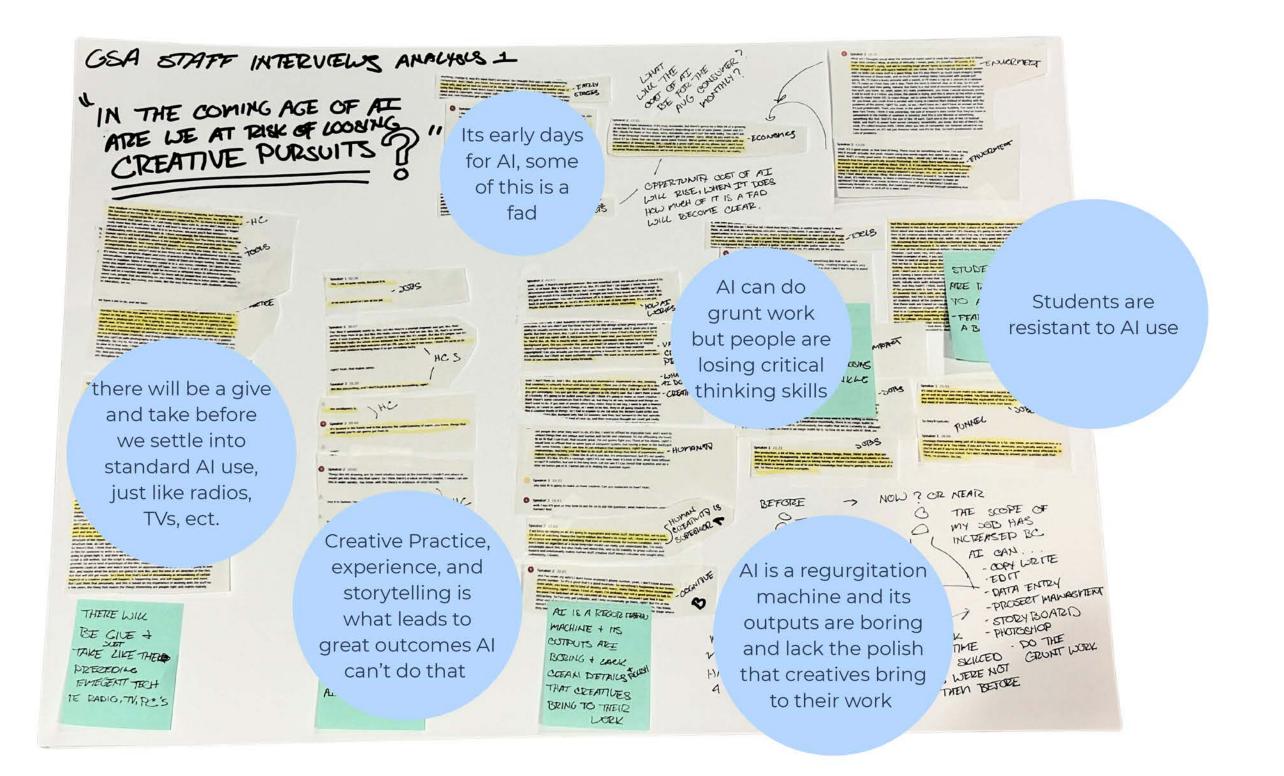
How are you using Al?

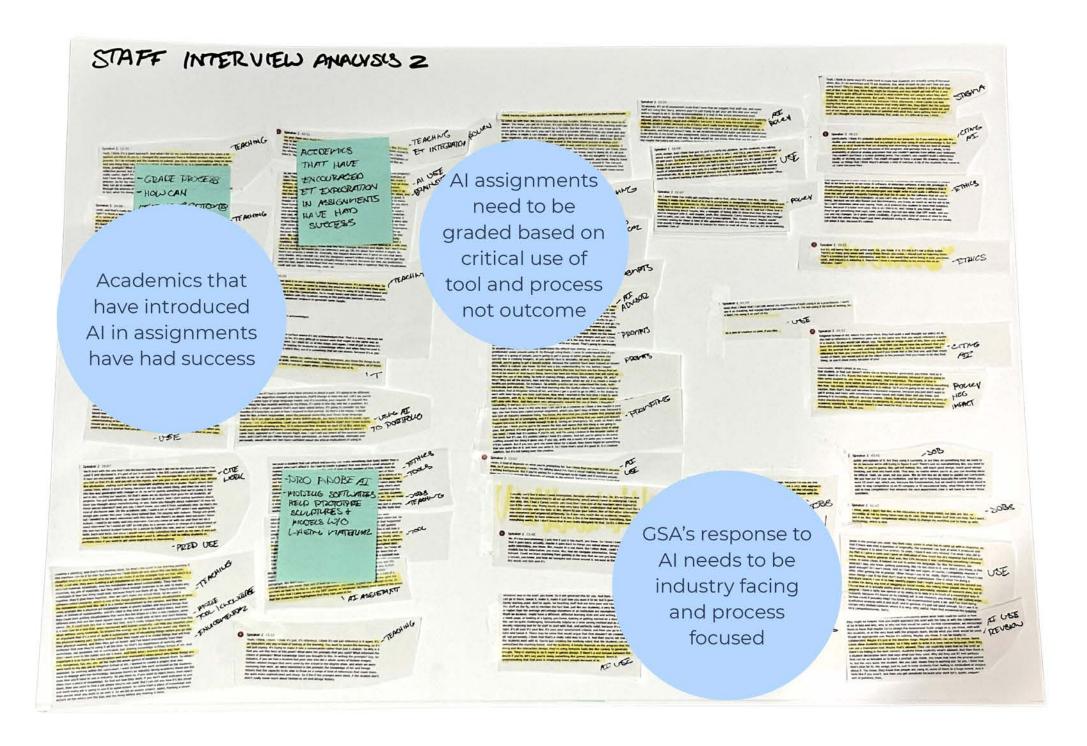
How are students using AI?

Do you think in the coming age of Al, we are at risk of losing creative pursuits?

How do you think AI should be cited in academic settings?

How do you think students using AI can show their effort/ workflow visualization?



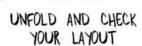


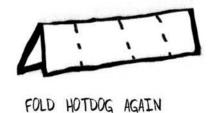
Engagement Plan

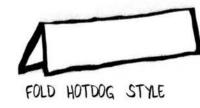
4 students

Zine workshop 2 hours

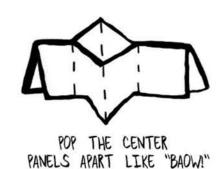








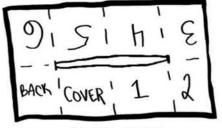




TWO PANELS







UNFOLD AGAIN, YOU SHOULD HAVE A HOLE IN THE CENTER



FOLD IT UP AND OMG YOU HAVE A MINI ZINE!

Prompts

- 1. Front cover
- 2. Back cover
- 3. What are the positives of AI?
- 4. What are the negatives of AI?
- 5. How do you use AI?
- 6. What do you want to know about AI?
- 7. What do you want other students to know about AI?
- 8. Extra Space

Supplies

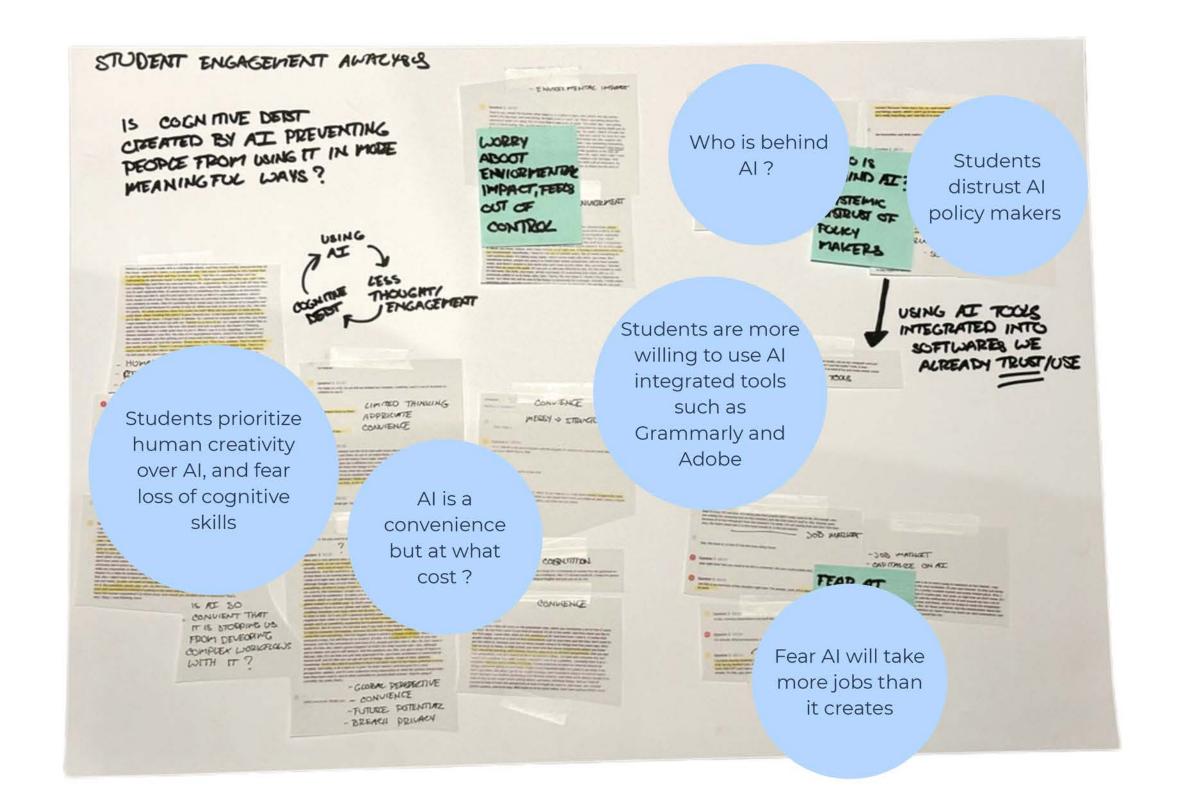
magazines markers glue Student engagement
was designed to
facilitate a slower and
physical reflection on
Al use

Students had more negative than positive spreads. This is consistent with what GSA staff told me about student Al usage.





Students had more questions than answers about AI use. This points to fear based around a lack of clarity and around present and future states of AI use.

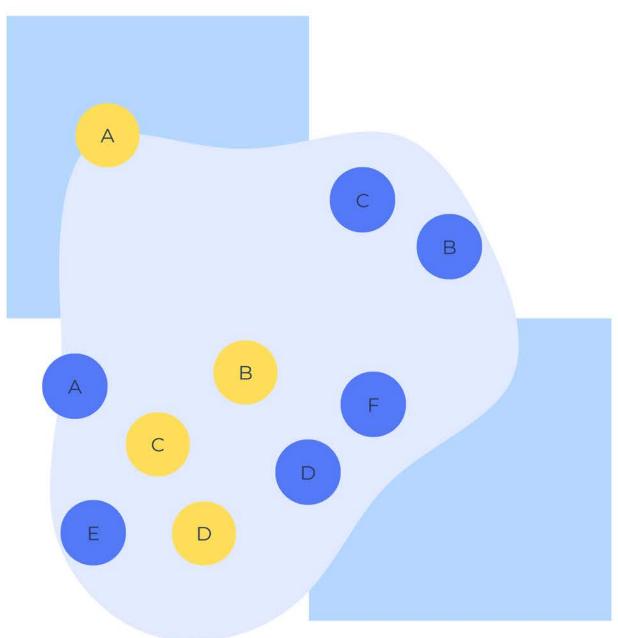


Matrix Interviewees

STEM







The data skew toward project-based, STEM, and innovation-oriented learning environments is expected. Since my partner is GSA this is expected, because very few programs at GSA follow traditional teaching structures.

Including the Fine Arts Program in the solution is a constant consideration.

Humanities

Key Quotes



Job Preparedness

"It's taking jobs that people didn't really want to do, like people who are writing the annoying text on like websites"

"I'm going to call it. It's a bit of a cruel thing, but it's sort of that kind of low hanging fruit of creative practice"



Climate

"I mean, yeah, it's dreadful. Of course, it is. We're the planet's dying, and we're creating huge server farms to create in the main, you know, images of cats with space helmets on, you know"



Ethics

"it's like, I always compare it to eating meat, right? Is there a way to do that ethically? So that's the question. We can teach students to use AI in terms of academic integrity, they will pass the ethical framework that we have as a higher education institution."

educators processes grammarly service billionaires professional practice citation tool cartography skills use tools creative Z prompts education creativity future email industry human analog gen text book market usage in ethical pursuits adoption impact job student replication disclosure research language generation generational image learning workflow academic assessment knowledge agency

Transcripts from interviews and workshop were recorded by Otter AI. This app creates searchable transcripts and keywords and key points for every conversation. I put the generated keywords from each conversation into a word cloud to map the general themes of all my conversations.

Combining Coding Results from Staff and Student Interviews

Academics

Students

Students are more willing to use AI integrated tools: Grammarly, Adobe Al assignments
need to be
graded based on
critical use of
tool and process
not outcome

Academics that have introduced Al in assignments have had success

> GSA's response to Al needs to be industry facing and process focused

Students prioritize human creativity over AI, and fear loss of cognitive skills

Creative practice, experience, and storytelling is what leads to great outcomes -Al can't do that Its early days for AI, some of this is a fad

There will be a give and take before we settle into standard AI use, just like radios, TVs etc. Al is a convenience but at what cost?

Students distrust Al

policy

makers

Students are resistant to Al use

jobs than it creates

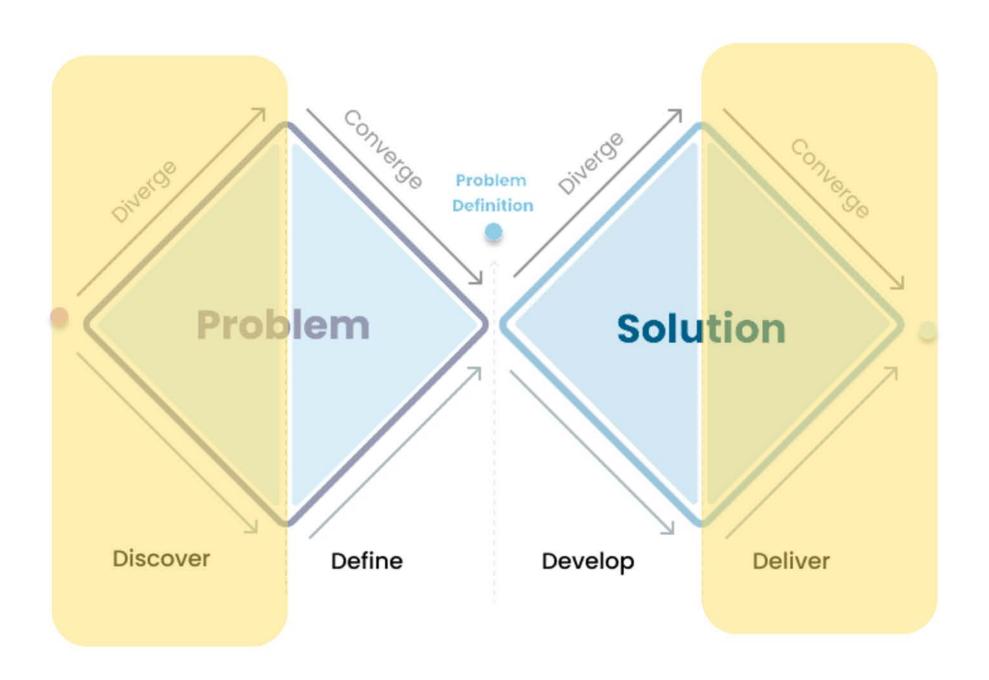
Fear Al will

Who is behind AI?

Al can do grunt work but people are losing critical thinking skills

Al is a regurgitation machine and its outputs are boring and lack the polish that creatives bring to their work

Double Diamond AI Use



Though my interviews, I found that most people are using AI specific programs like ChatGPT to brainstorm and plan at the beginning of their projects and/or for refinement or translation at the end of their projects

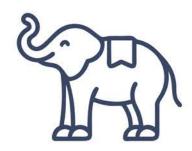
As services and softwares like Adobe and other modeling softwares integrate AI use in their systems, AI use in the define and development stages will increase.

Reframing Scope

After careful analysis of the data I collected, I found a lot of tension around AI use, and forcing students to use it.

So, I decided to expand the scope of my project to include all emergent technology use across the Glasgow School of Art.

This will allow me to create a service that helps students and staff use and learn emergent technologies across programs.



Al is the Elephant in the Room



There is a lot of fear and stigma around future state of Al



Student



Staff

Relationship Map

GSA master's students have lower engagement with extra trainings because of time constraints

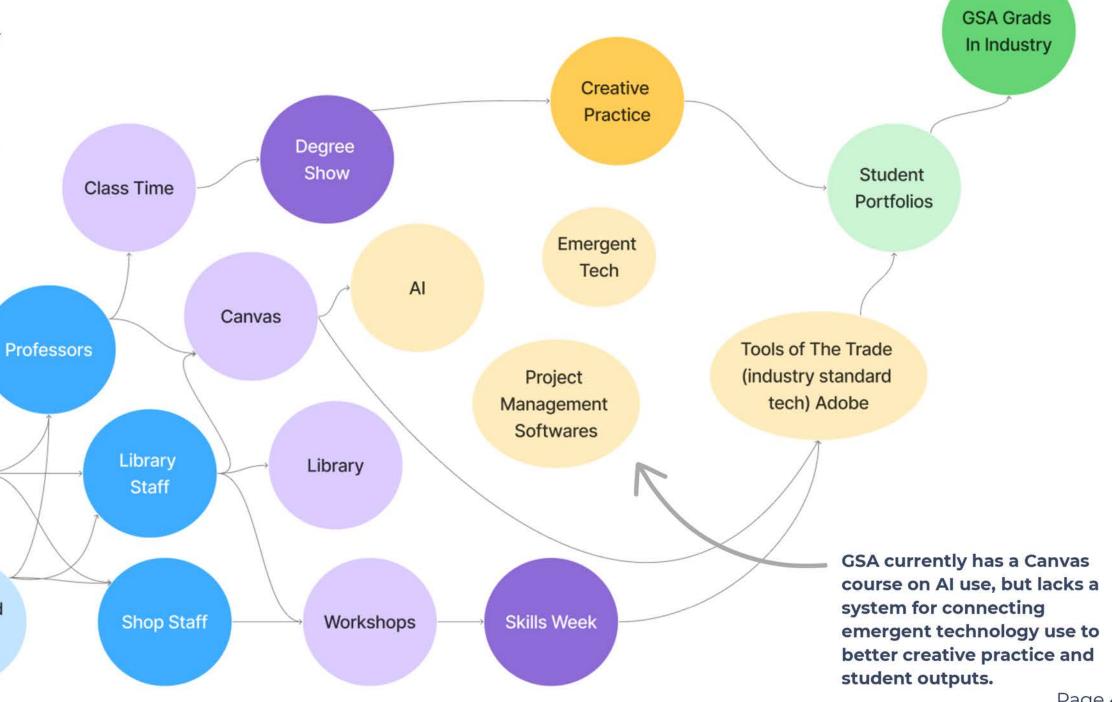
Each year, GSA welcomes more students from international and diverse backgrounds—and for many of them, this gap feels like a chasm

Masters

Students

Undergrad

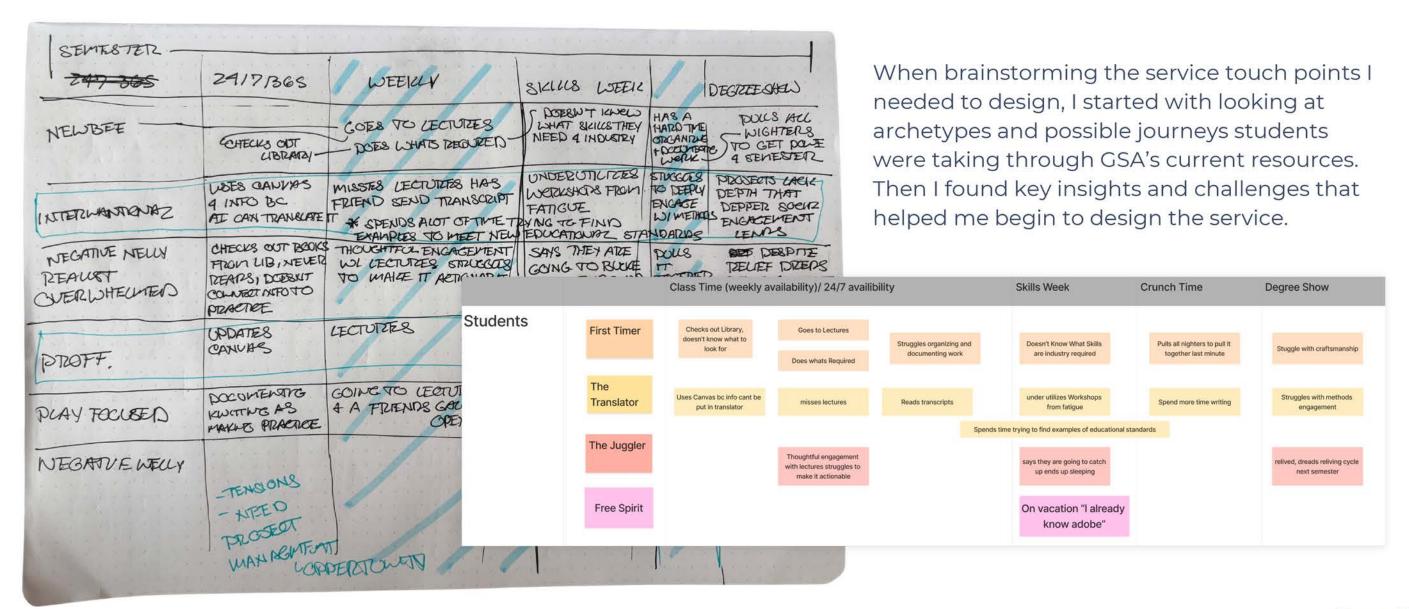
Students

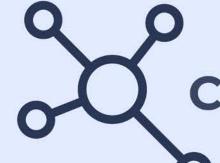


Journey Map

How can I create a service that Class connects pre-existing touch Time Canvas points to better assist students in learning new technologies? Degree Show Library Skills Week Workshops

Mapping Student Journeys





Connecting GSA's existing resources into one journey

Defining time frame of service





Spreading facilitation of service across GSA to bring a cohesive experience that

encourages a cross discipline exchange

Insights

Focus on Staff because they facilitate culture around emergent tech year after year. They have to facilitate the change

Familiarizing students with resources early helps build a strong foundation



What resources does a student really need? What moves the line?

All GSA students could benefit from project management tools The faster students learn the basics (Adobe) the quicker they can move on to things that make their practice unique





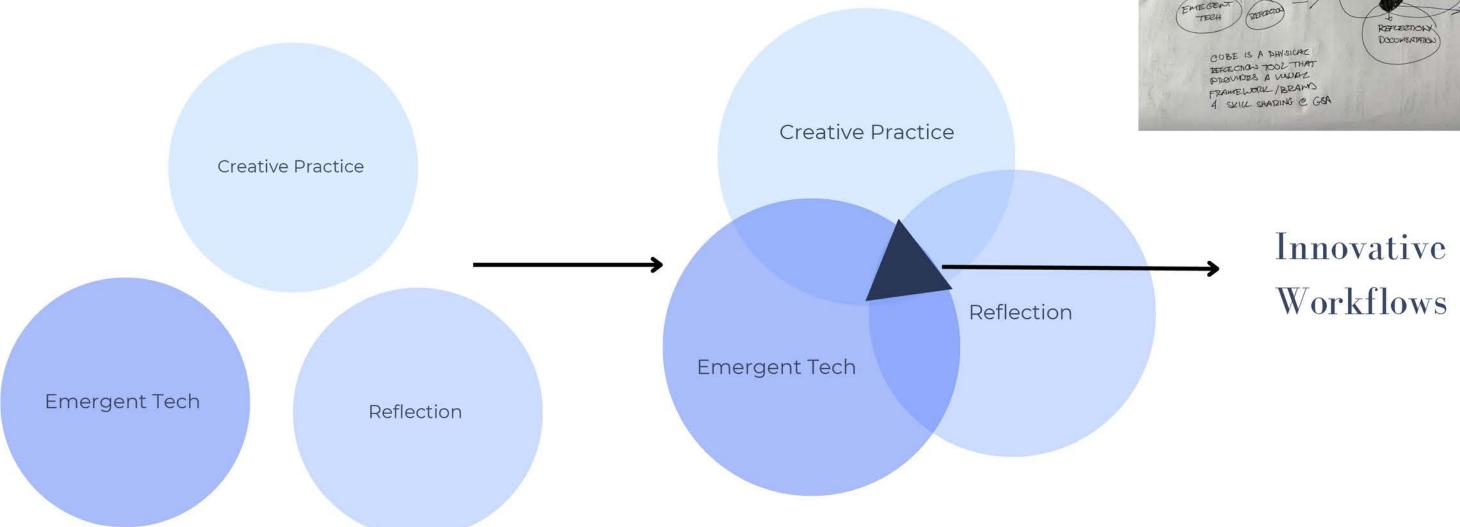
Phase 3 Delivery

How can Glasgow School of Art enable and encourage the use of emerging technologies through

- skill sharing,
- documentation, and
- reflective creative practice?



Innovative Workflows



. THICK ENTER ENGAGE EXT. EXCHEND

CREATIVE PRAGREE

- PREPARTATION, INCUBATION, ILLUMINATION, EUNICATION, VERTPICATION PRESENTATION - EMPATHIZE, ODDINE, IDEATE, DROWN TOPE, TOST, INDUELIZATION

WORKFLAUS

Archetypes



The Juggler

takes on too much and struggles to prioritize tasks and keep track of progress



First Timer

students with weaker art and design backgrounds offer fresh perspectives but are playing catch-up when to master methods and practice



The Translator

attempting to balance a new language, tools, and educational norms, this student struggles to keep up with reading



The Free Spirit

follows curiosity over deadlines. The free spirit comes from a strong art/design background and thinks they don't need to participate in skills week





Who

GSA students that struggle with

- organization
- adopting new technology into their workflows
- reflecting on their creative practice

Why

GSA Students have low engagement with resources around emergent technology. Many of them avoid emergent tech because they worry about cognitive decline, and losing their jobs to AI.

What

C.U.B.E. is a system of touch points that

- enables students to visualize and reflect on their creative practice
- shares that information with GSA staff
- promotes and shares how creatives are using new software and technologies

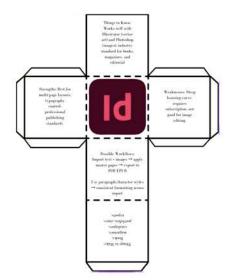
How

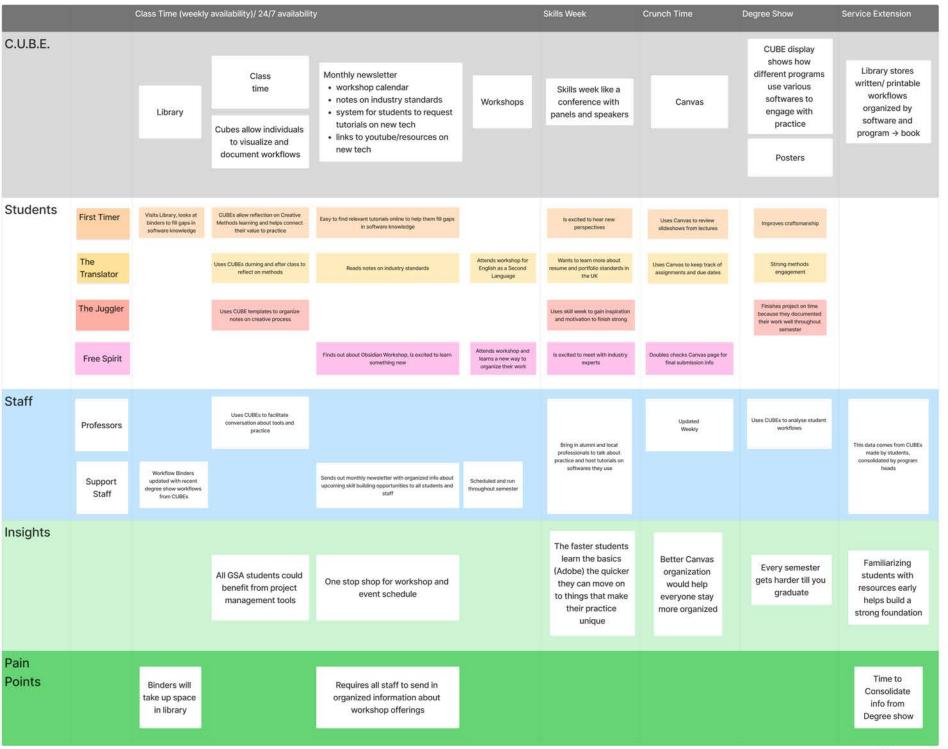
C.U.B.E. is a physical reflection tool that creates a paper trail for students and staff to think about emergent technologies and their strengths and weaknesses.



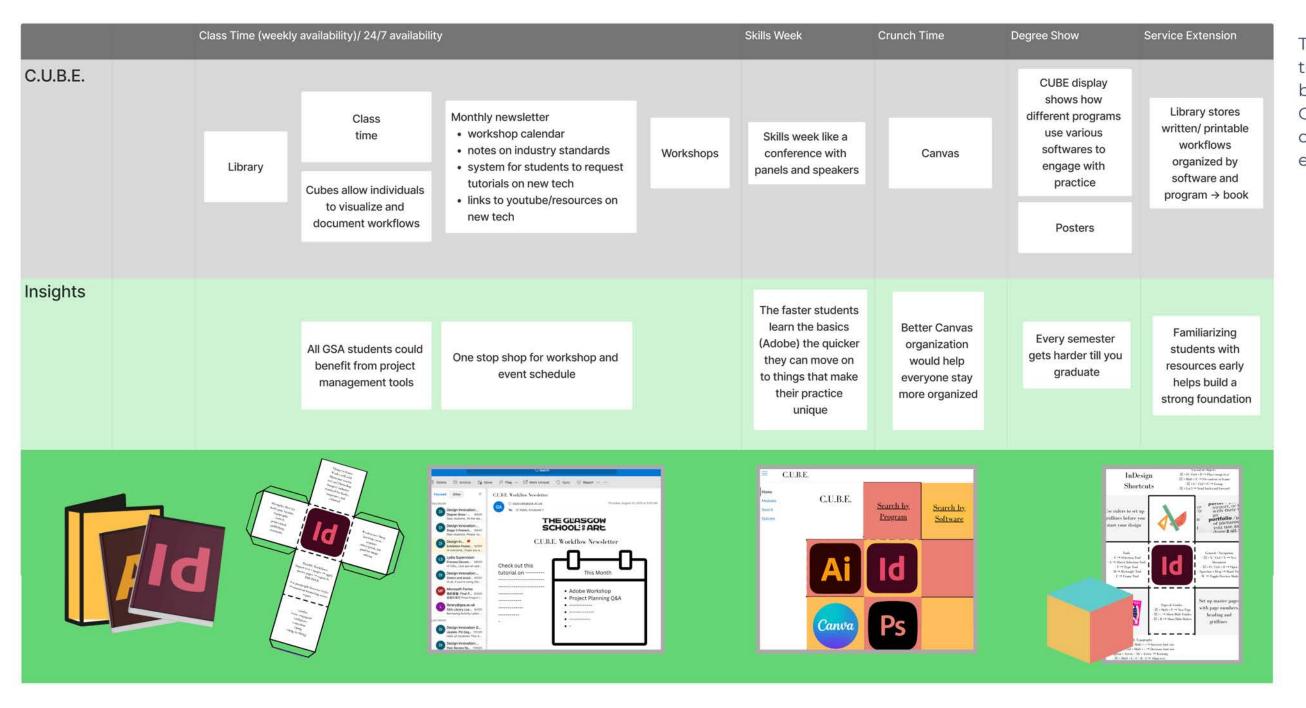
Service Model

The CUBE service model is designed to connect student resources with creative practice. The cube template touch point was created to encourage students to create a physical record of the tools they used over the course of the semester. This allows for personal reflection on use of the tool and the tool itself. When this information is shared on Canvas and in the library it creates a record for students across GSA to access and discuss.



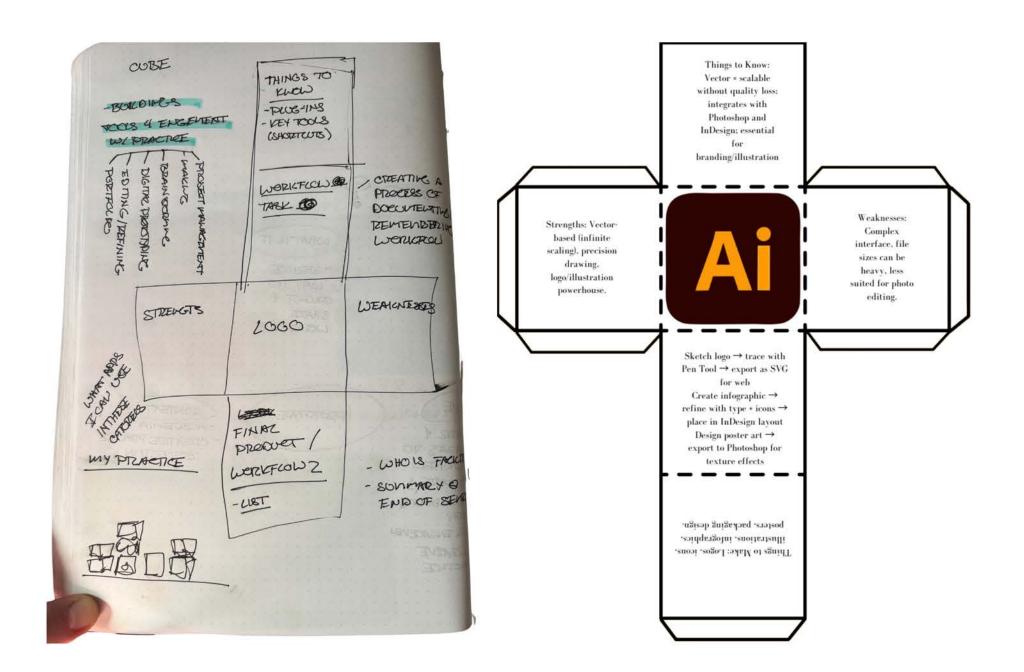


Students would complete this cycle every semester of their time at GSA Skills Week ← Degree Show POSTER. Canvas Individual Studio Students



The CUBE service touch points act as a bridge connecting all of GSA's resources into one cohesive experience

Prototype



The C.U.B.E. template was designed to spark meaningful conversations about how a tool or software is used in real practice.

Each cube face explores:

- Strengths
- Weaknesses
- Workflow
- Things to know
- Things to make

The strengths and workflow information is moved to a poster to be displayed at degree show.

User Journey

This journey maps a typical student's path from uncertainty to confident creative output using the C.U.B.E. system.



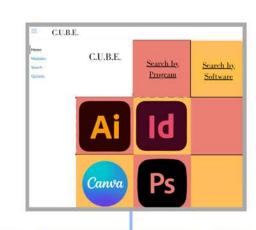
Library

GSA student goes to library and looks at binders full of possible workflows to organize and complete their project



Newsletter

Student signs up for workshop to learn more about workflow



Degree Show

Students come together and explore how GSA has explored creative practice this semester

Step 01

Step 02

Step 03

Step 04

Step 05

Step 06

Identifying Task

GSA student is assigned a project but are not sure of how to go about it.



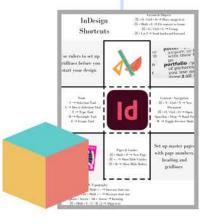
Experimentation

Student picks a workflow and test it out



Canvas

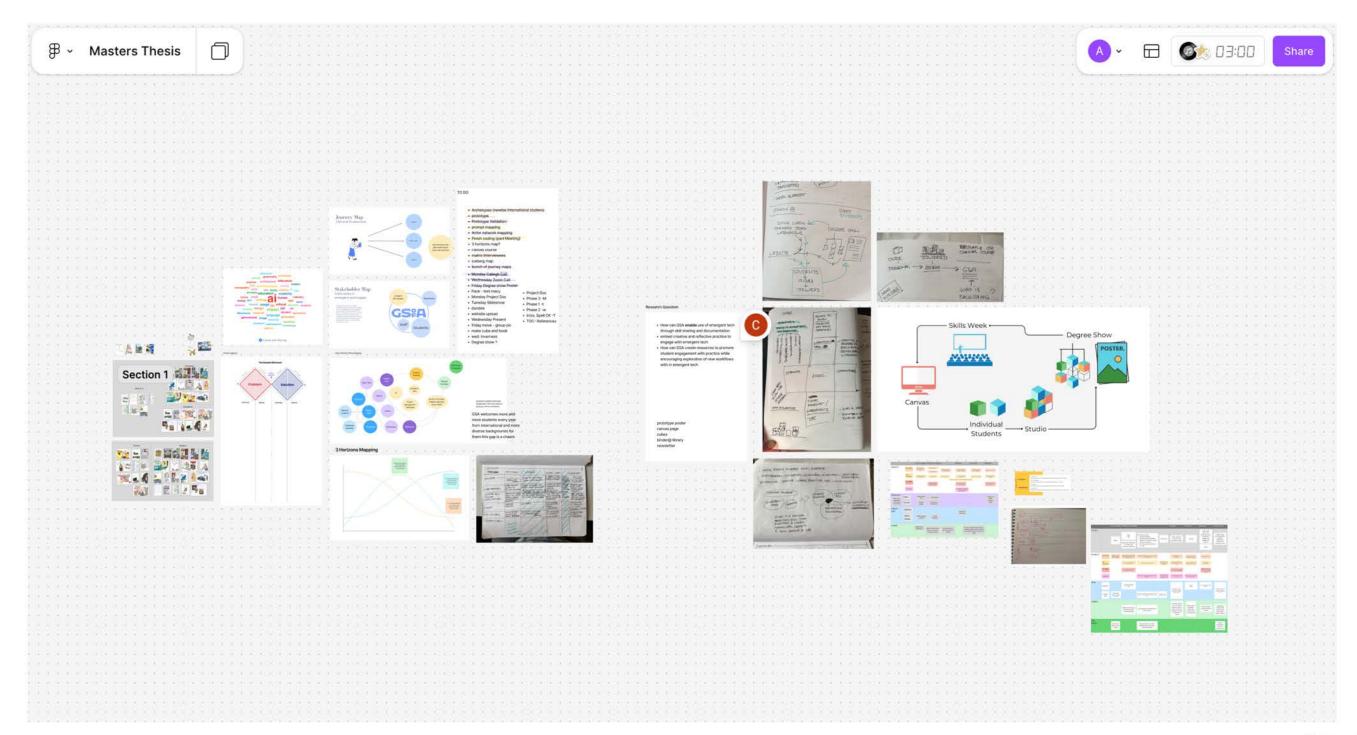
student continues to research methods for project



Impact



- Increased digital literacy across disciplines.
- A stronger culture of peer-to-peer learning.
- Ethical, reflective engagement with emerging technologies.
- Greater inclusivity and accessibility in creative practice.



Reflection

If I had more time I would have done a second round of interviews with educators to further ideate and validate how the CUBE service would work behind the line of visibility. This also would have allowed me to dive deeper into how the service would be carried over semester to semester.



What I learned about AI? AI Rules of The Road

Al will lie to you

Al doesn't care about your manners

Double check it actually reads links, or better yet upload PDF's or paste in text

Al doesn't know anything it's just telling you what it thinks you want to hear based on a lot of stuff already on the internet "assume bias, so... if you're asking for a photograph to be made and it includes people, then you have to include the diversity of people in the prompt, because it's not going to do that itself."

What I learned about AI? Mapping AI futures



Mainstream Media Filters and recycles itself, finite amount of media to consume



algorithms filter our media, limited only by our attention spans and time



Al filters and sorts media?

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