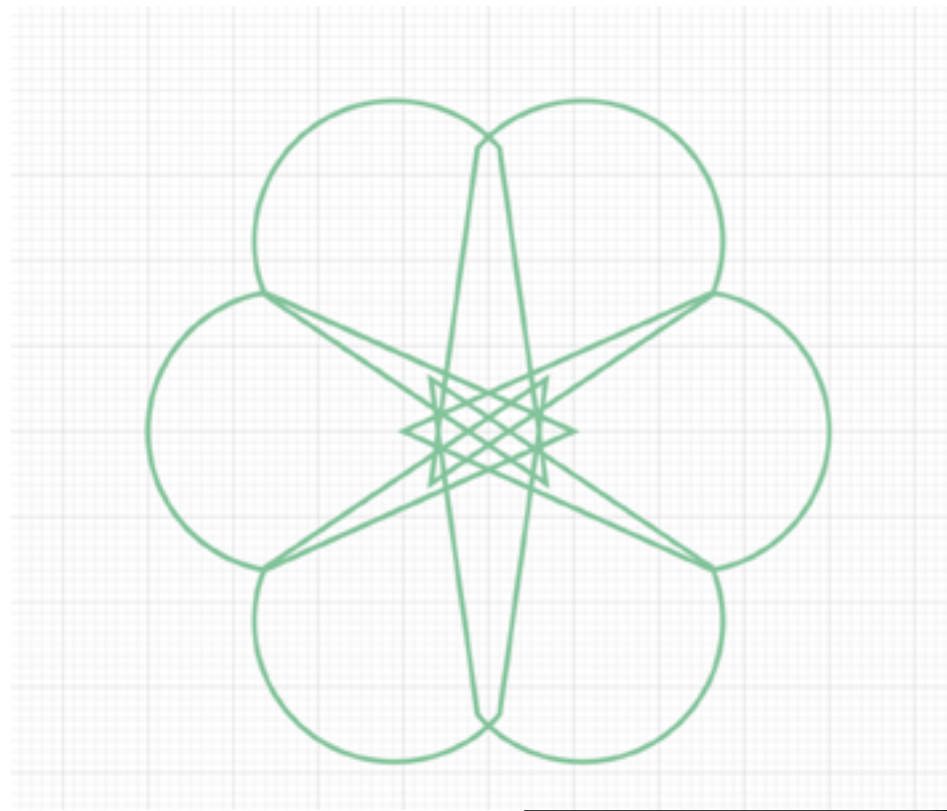
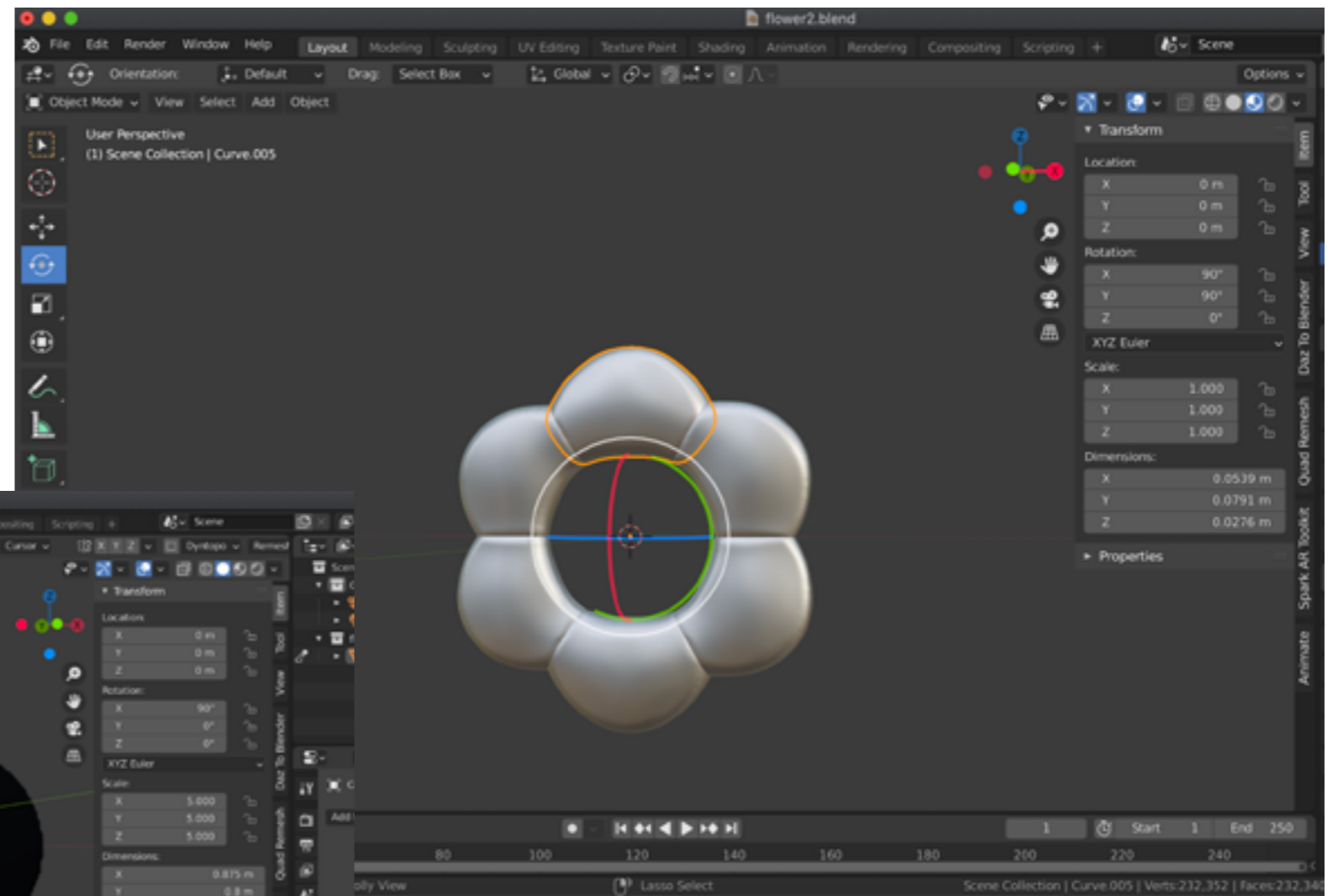


images from 'Programming is Forgetting' by Allison Parrish

In her talk, 'Programming is Forgetting' Allison Parrish makes it clear that bias in computer systems exists because every computer program is by necessity written from a particular point of view. In this project I wanted to challenge my bias (the assumption my work is easy to engage with) and focus on accessibility, co-creation, and the principle of universal design.



initial sketch of flower design in Adobe Illustrator attempting to make it mathematically even



development of 3D flower model in blender from one fixed model to 6 different models to make one flower.

Focusing on the experience of my mum, I have begun to design and think about what an outdoor'ed user interface of my own practice in could look like, based on my own definition of the indoor'ed as being any interface I create using Blender, Three.js, HTML and CSS that remains inaccessible for her to use.

My mum was born in the pre-digital era, and like many people from the pre-digital generation she finds elements of using computers, and the internet, inaccessible; due to assumed knowledge and obfuscation (the action of making something obscure, unclear, or unintelligible).

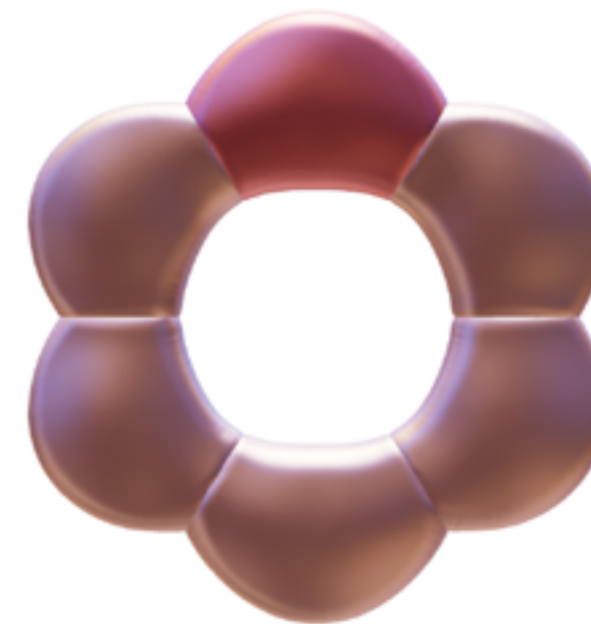
My research highlighted that a vital tool when encouraging digital involvement in the pre-digital generation is co-creation, and that technology should be explored as a social process when designing for digital inclusion. I constantly ask my mum for feedback on my projects, so it felt like a natural decision to ask her to be the audience for my project.



Xerox Star Interface, 1982

“The Star user interface adheres rigorously to a small set of principles designed to make the system seem friendly by simplifying the human-machine interface.”

Through the medium of web design, I wanted to question what a new graphical user interface for a computer desktop could look like when we remove the metaphor of an 'office' and the assumed knowledge and skills that comes with this.



code & image of one of the initial prototypes for the web-based interface proposal

```
New File v
assets
.gitignore
LICENSE
README.md
TODO.md
index.html
main.css
script.js

258 //ifstatements
259 //https://stackoverflow.com/questions/19016572/else-if-statement-with-3-or-more-conditions
260 //https://www.w3schools.com/js/js_if_else.asp
261 //https://www.w3schools.com/js/js_comparisons.asp
262
263
264~ if ( intersects.length > 0 ) {
265
266~   const res = intersects.filter( function ( res ) {
267
268     return res && res.object;
269
270   } )[ 0 ];
271
272~   if ( res && res.object ) {
273
274     selectedObject = res.object;
275
276     selectedObject.material.color.set( '#ff748c' );
277   }
278
279   if ( intersects [0].object.name == "petal1"){
280
281
282
283     console.log( 'you clicked petal 1 girl' );
284   }
285   if ( intersects [0]. object.name == "petal2"){
286     console.log('you clicked petal 2 girl');
287   }
288   if ( intersects [0]. object.name == "petal3") {
289     console.log('you clicked petal 3 girl');
290   }
291   if ( intersects [0]. object.name == "petal4") {
292     console.log('you clicked petal 4 girl');
293   }
294   if ( intersects [0]. object.name == "petal5") {
295     console.log('you clicked petal 5 girl');
296   }
297   if ( intersects [0]. object.name == "petal6") {
298     console.log('you clicked petal 6 girl');
299   }

```

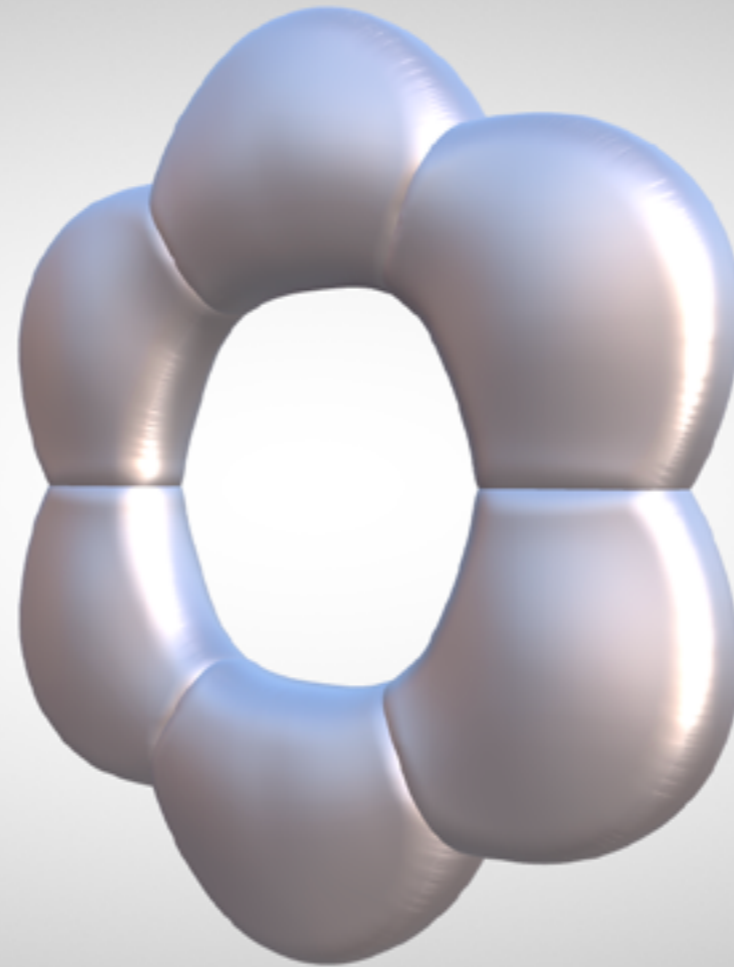
I chose a flower as the core of my interface design, as my research suggested that people from the pre-digital generation engage more with their digital tools when they have an emotional connection to their physical world, and one of my mum's hobbies is gardening.

▸ Display

▸ Lighting

▸ Performance

Close Controls



testing 3D model in Dom
McCurdy's GLTF viewer

In 'Hyper Graphics' Roy McKelvey states that unlike the printed page, a webpage allows users to interact with the information and the provider, with meaningful information flowing both ways. I opted to use 3D modelling and three.js to communicate the core visual elements of the interface design and interactivity as the computer can communicate in three dimensions (using the XYZ axis) and whilst CSS does communicate with a Z axis, there are limitations to its usage, just like in print design.



screenshot of website outcome

This project slowed down my process and limited my capacity to create the type of visual and experiential outcomes I am used to being able to create using 3D modelling and three.js. I had to apply much more focus on developing the technical, mathematical aspects of my skills in three.js, to ensure my outcome kept with the standard of accessibility I was aiming for.

I was unable to use certain elements of three.js I usually apply without much thought to my work, such as orbit controls (where the user can rotate the view of the screen), as I was attempting to avoid any unnecessary complexity in my design process, that could lead to obfuscation in the interface.

I have been forced to reconsider the purpose of my tools (three.js, 3D modelling, Blender, CSS, HTML), and challenged to question my comfort zone in how I apply them to my work.