STRIVE: UX RESEARCH TO

Proposal.

Project 3 • Interactive Objects & Environments

Compiled For

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Presented By

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RECAP

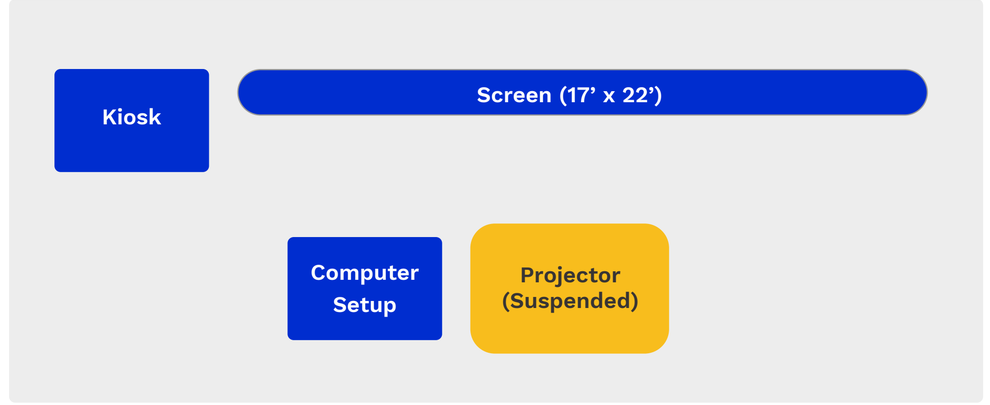
Machine Learning.

Making Use of Neural Networks

We will use a generative adversarial network (GAN - a class of unsupervised machine learning, in which two neural networks compete with each other to generate realistic content) to create an image of a single fictional person (Strive Person) based off of the actual facial images of the attendees of the Strive conference.

It is our intention to have the Strive Person image regenerate in real time, each time an image is added to the collection. The design will consist of a large 17’ by 22’ screen upon which the Strive Person image will be projected, using Sheridans existing 6000 lumen projector. A Kiosk with a backdrop and a positional framing indicator (for uniformity) will be set up nearby to capture attendees images. A powerful computer with a discrete graphics card will be required to run the GAN. We will attempt to train as much of the model as possible ahead of time, so as to minimize on-site compute time.





EVALUATION

Design Goals.

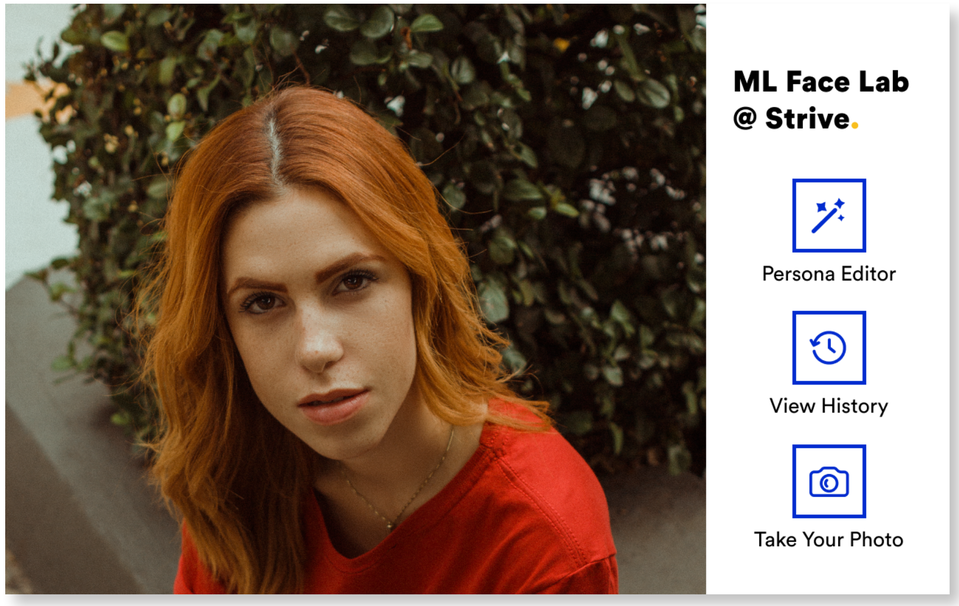
Factoring the Users In

Original

To bring awareness to the power and danger of machine learning tools in order to instill a sense of design responsibility. To convey a message of unity in light of recent political and social polarization and divisiveness.

Pivot as a result of user testing

To create a more useful and less artistic interaction, given the makeup of the conference participants, while still leveraging the power of machine learning tools, and stressing the importance of design responsibility and user research among UX participants.



PERSONAS

Evaluating Attendees.



Sofia Andrewson - UX Research Student

22F / Missisauga, ON, 3rd Year UX Student @ Humber College, $15,000 - $22,000, Single

Sofia wants to pursue a career in User Research Design. Since she enrolled in UX Design at Humber College a year ago, she has been participating in different events, and has met many people from the user research community. She was introduced to the UX Research Conference happening in Toronto by a mentor. She got a discounted ticket and is really excited to meet new people from the user research community and attend UX workshops.

Goals

To know more about user research
To attend UX workshops
To join and participate in the user research community

Values

Career growth
Events that deepens her understanding of user research design

PERSONAS

Evaluating Attendees.



Jimmy Lee - User Researcher

25M / North York / Graduated from YSDN / Junior User Researcher at Konrad Group / $90,925 - $125,750, Single

Jimmy is a user researcher at a design agency. He graduated from YSDN last year and joined the design team six months ago. The company is sending him to the UX Research Conference to deepen his expertise and to meet new people. He really appreciates the opportunity and is looking to use this chance to expand his network connections in the user research community.

Goals

To expand his network in the user research community
To listen to speaker talks and deepen his expertise
To participate in the user research community

Values

Career growth
Work/Life balance

PERSONAS

Evaluating Attendees.



Charrise Clark - Senior User Researcher

32F / Toronto / YSDN Graduate / Senior User Researcher @ Shopify / $125,000 - $175,000 / Married

Charrise is a Senior User Experience Researcher at Shopify on the Marketing Technology team which is focused on making marketing easier for merchants. She started her career in user research 3 years ago, and she recently became the leader of a small design team. Several speakers she admires will participate in the UX research conference, and she is also interested in the workshops too.

Goals

To better lead the team
To know more about User Research
To join the User Research community

Values

Career Growth
Time savings
Deepening her expertise in user research

PERSONAS

Evaluating Attendees.



Tim Bullard - UX Research Speaker

40M / California / Graduated from Stanford for Product Design / Director of Research & Analytics @ Airbnb / $150,000 - $220,000 / Married with 2 kids

Timmy is the Director of Research & Analytics at Airbnb, responsible for leading research and product analytics efforts that provide insights about users and work. He and his team work to help companies better understand the users they are building for, the goals and challenges they face. He is coming to the UX research conference to share his knowledge in his expertise, and to participate in the user research community in Toronto.

Goals

To share his expertise in user experience design
To make people's working lives better
To connect with the user research community in Toronto

Values

Career
Family
Time savings

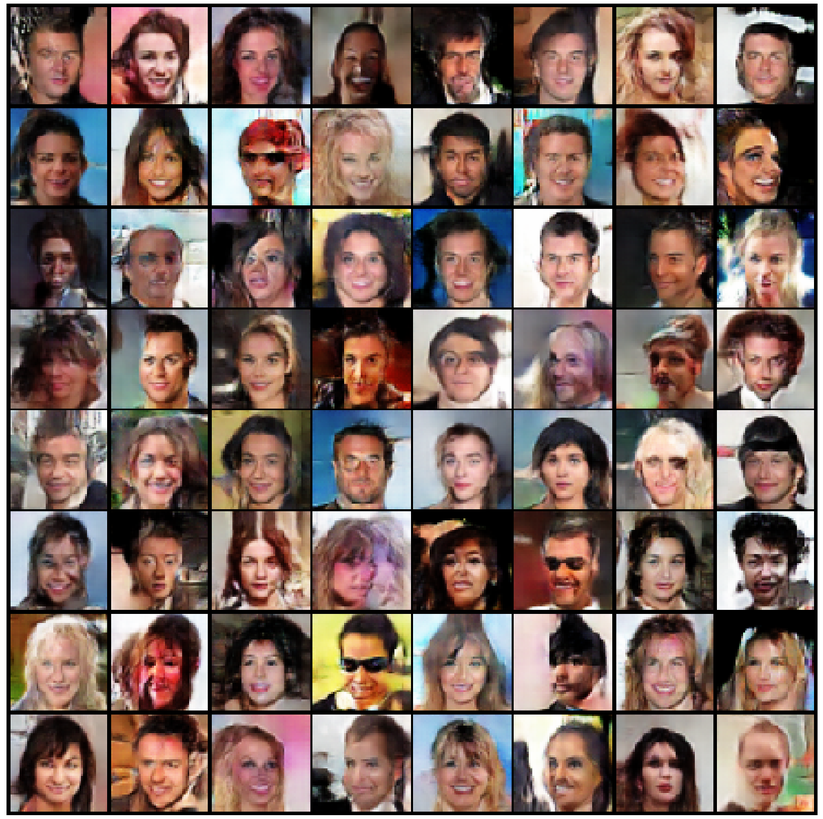
USING MACHINE LEARNING

Feasibility.

Assessment & Evaluation

Our concept relies heavily on machine learning, so it was important to know whether or not this was something that could realistically be created, given the timeframe.

In order to ascertain this, many hours were spent researching the technical details of training a generative adversarial network (GAN), and in the end we trained our own GAN model from a pre existing library of face images. This means that we were able to generate our own fake images and it would be a small step to generate new faces from new images.



DESIGNING THE STUDY

User Testing Study.

Techniques

The two techniques we will be using to aid in user testing are the tools known as “Think Aloud” and “Five Why’s”. Think aloud will allow us to understand what the user is thinking and feeling, as they are interacting with the prototypes. Five Why’s will allow us to drill down and understand why & how users feel or think this way.

We also made use of context scenarios to put testees in the correct state of mind to provide feedback on the experience as it would exist in situations.



PROTOTYPE 1

Testing the Original Concept.

Techniques

For Prototype 1 used the website https://thispersondoesnotexist.com/, which is a site that generates a fake machine-learning face every time the page is refreshed. We will use a context scenario to put the testee in the correct frame of mind, and lead them up to the point of interaction, as it may happen, at the Strive conference.

Context Scenario 1

You've just arrived at the Strive UX Conference at 11am. You're feeling fairly excited since you've been looking forward to this for several weeks. You see that the place is quite busy, and as you walk in, you notice to your right there is a large screen with a human-like face on it. You see that the face is slowly changing and it catches your attention. You walk over to see what is happening.

It's explained to you that the face on the screen is a generated face of a fake person (Strive Person) using an amalgam of photos of those present at the conference. You use the kiosk to take a photo and add your face to Strive Person.



PROTOTYPE 1

Testing the Original Concept.

User Feedback

Based on the context, what feedback can you provide on this interaction?
“The interaction is way too short and confusing since I don’t really know what I’m looking at”

What did you expect to happen?
“The user’s face seem to resemble them... but the final result didn’t really match the expectations I had.”

Was anything confusing about this interaction?
“It was very short and unclear, I wasn’t even sure if my input really mattered since there was no indication.”

What would you add if anything?
“More instruction or explanation of what’s happening”

What message do you interpret from this interaction?
“That machine learning is hard? Not really sure.”

Key Insights

Based on the feedback we received from the user testing, there was a lot of confusion as to what was happening on such a simple interaction.

There was a disconnect between the relationship of image taken of the user, and the face loaded on-screen and how they relate. The overall meaning was also unclear.

For the next prototype we wanted to address these two problems.

PROTOTYPE 2

Rapid Iterations.

Prototyping

For Prototype 1, we used the same website again. However, this time, we will take an image of the user testee (with their consent), and use it to help them visualize the transition from their image, to the fake generated image. We will use a context scenario to put the testee in the correct frame of mind, and lead them up to the point of interaction, as it may happen, at the Strive conference.

Context Scenario 2

You've just arrived at the Strive UX Conference at 11am. You're feeling fairly excited since you've been looking forward to this for several weeks. You see that the place is quite busy, and as you walk in, you notice to your right there is a large screen with a human-like face on it. You see that a photo of the person that just interacted with the kiosk appears on screen, and then that face transforms into a new face. You walk over to see what is happening.

It's explained to you that the face on the screen is a generated face of a fake person (Strive Person) using an amalgam of photos of those present at the conference. You use the kiosk to take a photo and add your face to Strive Person. You also see that there is an additional screen that shows a timeline of changes to all the photos.



PROTOTYPE 2

Quick & Dirty Prototyping.

User Feedback

Based on the context, what feedback can you provide on this interaction.
“It’s unclear that their face is part of the new face that exists, no resemblance”

What did you expect to happen?
“I guess I was waiting for the face to look like user’s face.”

Was anything confusing about this interaction?
“How their faces were added to the new face, seems too “magical”

What would you add if anything?
“A way to play with the face, possible to show”

What message do you interpret from this interaction?
“People merging together, but still unclear”

Key Insights

By adding in a transition from the user image to the generated image, the meaning and connection was more clear. However, users still failed to understand a clear connection between their face and generated face (that is to say, they would usually still not understand unless they were explicitly told).

At this point, we realized that our artistic and installation-inspired approach would be confusing, and that a more practical and useful solution might be more appropriate given the context of the Strive conference. It was necessary to adjust our design goal.

PROTOTYPE 3

Testing the New Direction.

Prototyping

For prototype 3, we designed and used an Invision interactive wireframe prototype that will prompt users to take a photo, display the generated faces, and have interactive sliders to simulated changes made to the generated image.



Context Scenario 3

You've just arrived at the Strive UX Conference at 11am. You're feeling fairly excited since you've been looking forward to this for several weeks. You see that the place is quite busy, and as you walk in, you notice to your right there is a large screen with a human face on it. You see that a photo of the person that just interacted with the kiosk appears on screen, and then that face transforms into a new face. You walk over to see what is happening. As you get closer, you notice that the screen changes to what looks like a basic editor with sliders, and you notice that a mouse is also present on a table right in front of the kiosk. There are sliders for: Hair Color, Skin Tone, Gender and Age.

It's explained to you that the face on the screen is a generated face of a fake person (Strive Person) using an amalgam of photos of those present at the conference, and that these photos can be customized based on different metrics. You use the kiosk to take a photo and add your face to Strive Person, and play with the editor.

PROTOTYPE 3

Testing the New Direction.

User Feedback

Based on the context, what feedback can you provide on this interaction.
The interaction was clear, the output might not be entirely accurate

What did you expect to happen?
The faces to change based off of the sliders (expectations were clear)

Was anything confusing about this interaction?
How it would change, and how accurate it would be

What would you add if anything?
More parameters to control the output

What message do you interpret from this interaction?
That technology can be used to alter perceptions

Was this interaction useful?
It was fun to imagine to play with, and there is potential for it to be useful in a few different way

Key Insights

By adding in an editing feature, we took the emphasis off of the user explicitly realizing the connection between their face and the generated image, to more of an emphasis on the power of machine learning tools.

The response to this approach was better as the interaction become more clear and understandable and users were no deriving meaning instead of mostly being confused. An important insight from some users was that our design solution was starting to become more of a useful tool, so we took measures to expand upon this.

PROTOTYPE 4

New Approach.

Prototyping

For prototype 4 we used an Invision interactive wireframe prototype that will prompt users to take a photo, display the generated faces, and have interactive sliders, input, toggles, to simulated changes made to the generated image. The final screen will simulate a persona template output, that can also be exported and sent via email as a memento of the conference.



Context Scenario 4

"..."As you get closer, you notice that the screen changes to what looks an editor with sliders, and you notice that a mouse is also present on a table right in front of the kiosk. There are sliders for: Hair Color, Skin Tone, Gender and Age, as well as inputs and toggles for: Income Level, Tech Expertise, Marital Status, Educational Level and Job title.

It's explained to you that the face on the screen is a generated face of a fake person (Strive Person) using an amalgam of photos of those present at the conference, and that these photos can be customized based on different metrics. You use the kiosk to take a photo and add your face to Strive Person, and play with the editor.

After you're done, you click on the "Generate" button, which takes you to a new screen with a template of the persona you've just created, based off of all your inputs on the editor page.

PROTOTYPE 4

Testing the New Direction.

User Feedback

Based on the context, what feedback can you provide on this interaction.
Clear, user friendly interface

What did you expect to happen?
The generated persona output, based on the input

Was anything confusing about this interaction?
Not really

What would you add if anything?
Potential for online persistent access

What message do you interpret from this interaction?
Content can be generated using machine learning tools

Was this interaction useful?
Useful for UX and or Product designers, as a tool for generating persons and helping to ideate solutions for different types of users

Key Insights

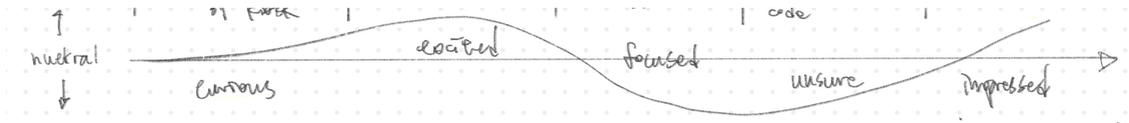
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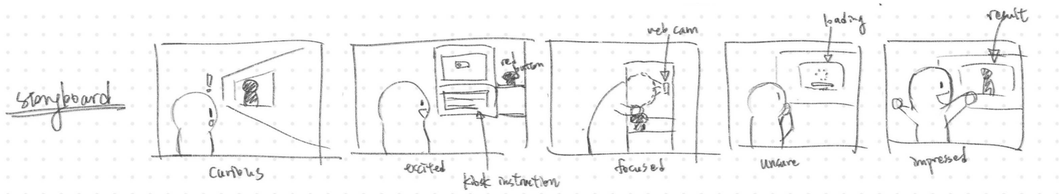
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USER JOURNEY MAP & STORY BOARD EVOLUTION

Prototype 1.

Action	Catches user attention	Understanding the kiosk	Using Kiosk	Waiting to generate	Result comes out
Feeling	Curious	Excited	Focused	Unsure	Impressed
Thinking	What does the kiosk do?	That is cool, let's try it	So, I have to push this button and take a photo...	What is it gonna look like?	Wow, that is really cool!
Doing	Looks at kiosk	Looks at the instruction of the kiosk	Tries out the kiosk, presses the button then takes a photo	Waits for the computer to generate the result	Looks at the generated result
Touchpoint	Kiosk and Projector	Kios	Red Button, Web Cam	Computer & Internet	Projection Canvas





USER JOURNEY MAP & STORY BOARD EVOLUTION

Prototype 4.

Action	Catches user attention	Reading the guidelines	First interaction with the UI	Hitting the “generate” button	Admiring/ saving the result
Feeling	Curious	Sparked interest	Excited	Interested	Content, impressed
Thinking	What does the kiosk do?	Interesting concept	What can I customize?	What will the output look like?	Can I save it? How?
Doing	Approaching the screen	Reading the manual	Adjusting the sliders on the laptop screen	Waiting for the outcome/ results	Looking at the screen and exploring the UI / Hitting the “save/sent to email” button
Touchpoint	The laptop mouse, and the tv screen	The mouse and the laptop - UI guide window open	The mouse and the laptop	The tv-screen	The tv-screen and the laptop

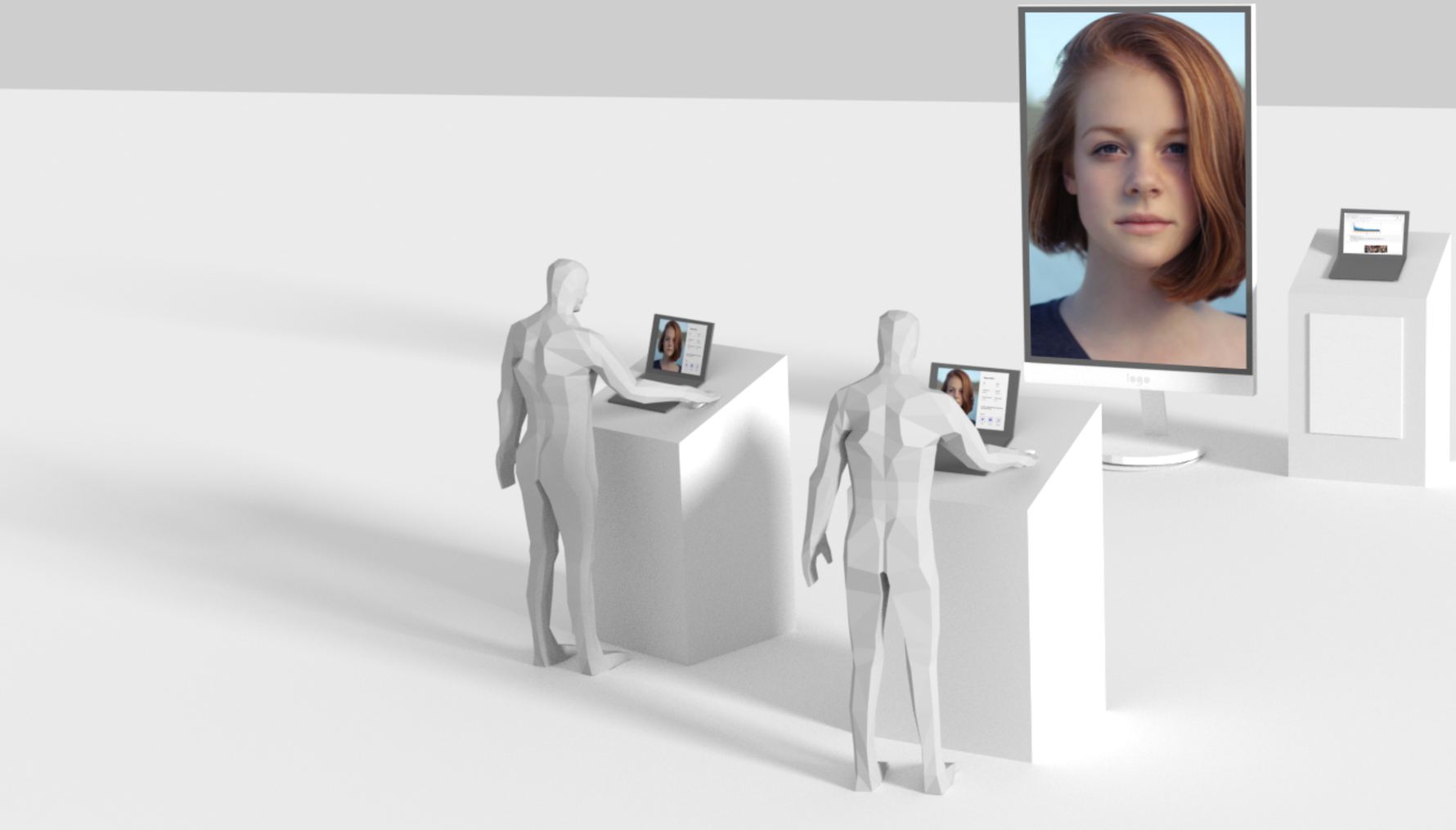


NEW VISUALIZATION

Installation Placement.

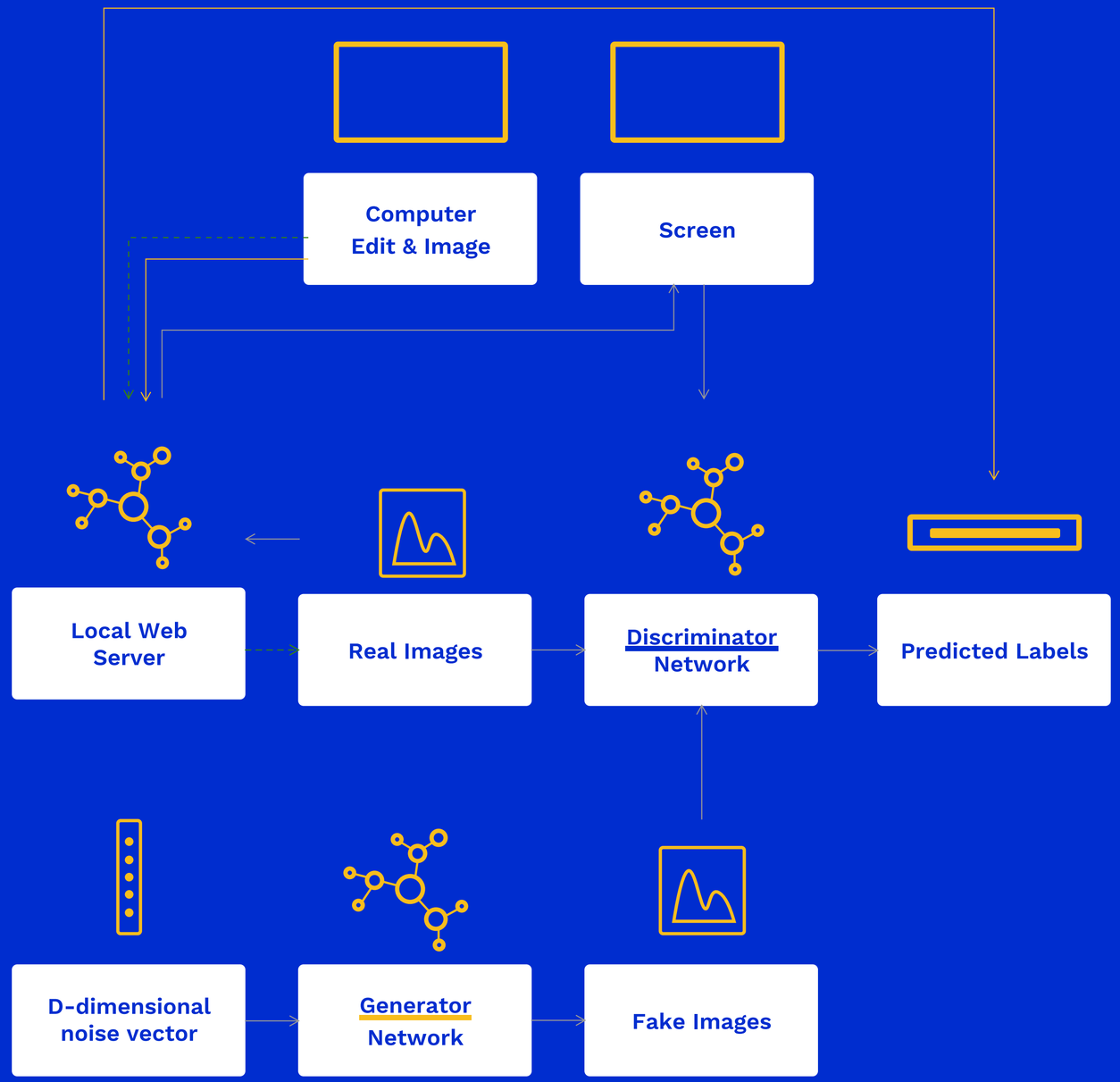
MOCKUP

The Installation.



HOW IT WORKS

System Map.



BUDGET

Equipment List.

Screens	$0
Laptops	$0
Podiums (3)	$329.71
Mice (2)	$40
Incidental Costs	$100

$469.71