

the misgendering machine

instructional booklet

by ada ada ada

welcome to the misgendering machine gender expression exploration experience.

during the next 10-15 minutes, you have the opportunity to get familiar with your own gender expression and learn how to challenge gendered perceptions of your own body.

the misgendering machine is a computer program that actively tries to guess your gender based on the gender expression of your facial area. by following the instructions contained in this booklet, you will be taken through a journey of exploring your own gender expression.

the next page contains some background on how the machine works as well as why the artist decided to construct this experience. but if you just want to get started, turn to page 5 for the first instructions.

page 3 contains special comments for people that are trans, non-binary or otherwise gender non-conforming.

page 4 features some short writing on how this machine works for people of color and people with disabilities.

enjoy the experience, and good luck!

- ada ada ada

the misgendering machine is the result of the artist's own experiences using gender recognition technology in her ongoing performative photo project "in transitu" on instagram.

through using her own trans body, ada ada ada has found several methods for tricking gender recognition technology into seeing another gender than the initial judgment.

the underlying gender recognition technology in the misgendering machine is not built by the artist. that technology is built by someone else and published for free on the internet.

this art installation aims to question, rethink and criticize this category of technologies. while it will become clear that gender recognition "artificial intelligence" cannot and should not be used to judge people's gender, the misgendering machine experience also shows that we might be able to at least use it to think about our own gender identity and expression.

background

gender recognition technology as a whole is built on a stereotypical understanding of gender expression. this means that it is very liable to misgender trans, non-binary and gender non-conforming people. for instance, trans women might experience being gendered as a man by this type of software.

since this machine relies on technology built on a binary gender understanding, you will never be gendered correctly if your gender lies outside of binary definitions. however, the artist hopes that you will find it rewarding to see how you can bend your own gender expression to trick the machine.

info for trans, non-binary & gender non-conforming people

if you express non-normative gender looks in some way, you might have varying results with the machine. it really depends on what your gender is and how your expression lies outside of gender norms.


if you are trans, non-binary or gender non-conforming you probably know this already, but remember that your gender is not defined by machines. it is defined by you, and can be as fluid as you want it to be.

gender recognition technology's reliance on binary gender stereotypes is one issue, but another is its racist dimensions. research by joy buolamwini et al. has found that gender recognition technology is significantly worse at correctly gendering black people and particularly black women. their research focused on black people, but it's likely that you will find similar results on other people of colour. in other words, this group of technologies builds on racist assumptions and ideologies.



info for people of color

info for people with disabilities



while the artist has not seen any research into this topic, it is also quite likely that some disabilities might make it more difficult to be gendered correctly by gender recognition technology. if you experience being misgendered, it is likely the result of ableist framings from the creators of the underlying technology.

part 1: introduction

welcome to the introductory part of the misgendering machine experience.

to get you familiar with the software, start by staring into the screen and seeing what results it throws back at you. gender recognition technology relies on facial recognition, so be sure that the machine can see your face.

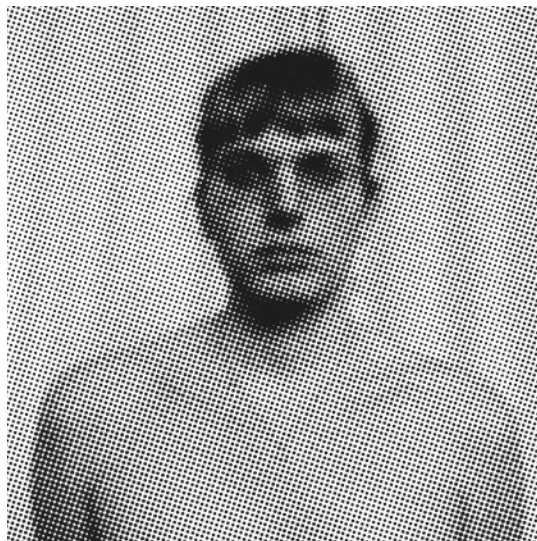
the algorithm running this experience has been conditioned by images of people with assigned gender labels. from these images, it extracts certain gender stereotypes that seem to align across its data set. the software then compares these learned stereotypes with your gender expression. once it has decided which one you match most closely, it will show you the results. all of this happens within milliseconds. if it thinks you match male gender stereotypes, you will be called a man, and vice versa.

this means that, if you want the machine to gender you as a man, you have to embrace the manly gender stereotypes from the software's data set. on the other hand, if you want the machine to gender you as a woman, you must embrace its womanly gender stereotypes. with tens of thousands of images in the dataset, it is difficult to know beforehand what works and what does not.

however, by following the instructions on the next pages, you will be given plenty of help in navigating through gender stereotypes that can trick this machine.

part 2: emotional expression

we have arrived at part 2. in this initial part of the experience, the focus is on how gender is also what kind of faces we make. to get on with the show, pick how you want the machine to gender you on this or the next page, and then follow the underlying instructions.



i want to be gendered as a man

if you want this machine to see you as a man, you should start by making your face as neutral as possible. the fewer emotions you show, the better.

this might not do much to your gender results, but another thing we can try is to be angry. so i want you to put on your best frowny face. wrinkle your forehead, arch your eyebrows, curve your mouth downwards. you know the deal.

part 2: emotional expression

i want to be gendered as a woman

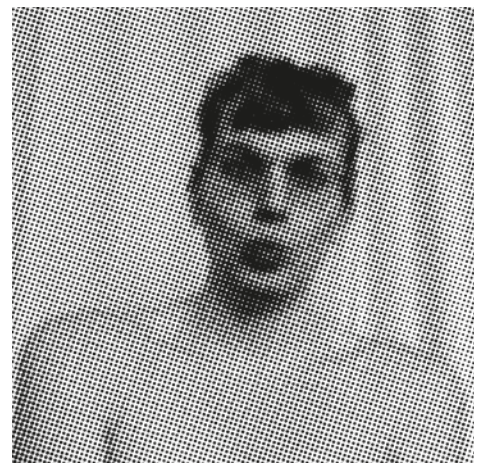
if you want this machine to tell you that you look like a woman, i would like you to start by putting on a big smile. show a lot of teeth perhaps or make sure your lips look as thick as they can.

to take this exploration a step further, you can try making a kissy face. purse up your lips and make them look round and luscious.

i'm not sure how i want to be gendered

if you just want to fuck around, you can try to make a grimace. distort your face, mouth, eyes, eyebrows as much as you want. you might find some interesting results, or you might confuse the machine completely.

you can also try to use your hands to distort your face even more. this might especially make the machine confused.



part 2.5: review

before we move on to the next part, let's take a moment to review what just happened.

if you tried to get the machine to gender you as a man, you had to embrace the masculine stereotypes of being either angry or without emotion. once again, this is because the misgendering machine is built on gender stereotypes, not a proper understanding of gender.

simultaneously, if you were looking for the womanly gender result, you had to embrace the facial expressions generally expected of women. in other words, you were asked to smile or look cute and flirty.

if you were unsure of how you wanted to be gendered, you hopefully had the fluid experience of being able to move the results simply by changing your facial expression.

part 3: head movement

in part 3, we look at what happens with different placements of your head. simply moving our neck around can actually have effects on the results we get from the “artificial intelligence”.

i want to be gendered as a man

unfortunately, after more than a year’s research, the artist has not yet found a way for the misgendering machine to gender people as a man merely by using head movement. the best guess is simply to look straight into the camera.

you can move on to the next part if you wish.

i want to be gendered as a woman

to be seen as a woman by the machine, you can start by tilting your head to one side. if this does not work, you can try the other side.

i’m not sure how i want to be gendered

try moving your head around in a lot of different ways. you can try turning your head, but you might find that the machine stops recognizing your face at some point. in order to gender you, it needs to see your face.

you can also try to tilt your head back as far as you can while still having your face be visible to the machine.

part 4: hair and beard

this part is a bit tricky to work with depending on your hair situation, but we will see what we can do.

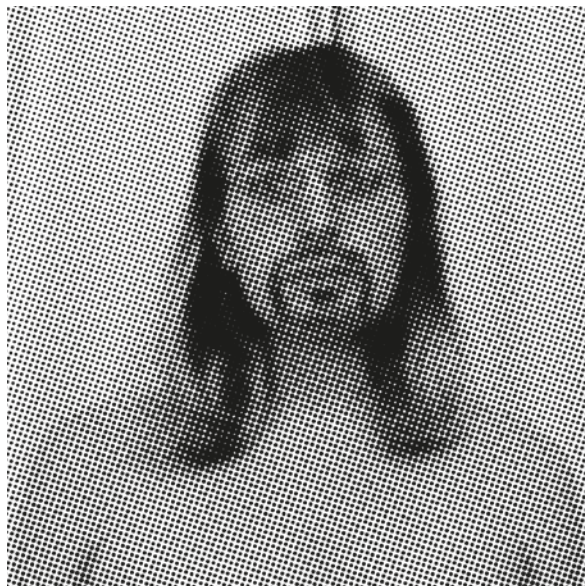
i want to be gendered as a man

if you have long hair, you want to make it look as short as possible here. if you put it in a ponytail in the back of your head, the machine will not be able to see it and will see your hair as short.

if you have short hair and are still gendered as a woman, you might want to cover your hair with your hands. this can sometimes convince the machine that you have really short hair or no hair at all.

curly hair is unknown territory to the artist, so you are urged to just try out various stuff.

finally, having a beard would also make you look like a man to the machine, since beards are traditionally associated with men.



part 4: hair and beard

i want to be gendered as a woman

if you have short hair, it is more difficult to make the machine gender you as a woman, since it requires you making your hair long and stereotypically woman-like.

if your hair is long and the machine sees you as a man, you can try to make your hair even larger by messing it up.

the artist is unsure what happens with curly hair, so use your imagination if that is how your hair is.

if you have a beard, you can try covering it with your hands to make it look as if you have none.

i'm not sure how i want to be gendered

depending on your hair situation, you can try mixing it up a bit. make a strange ponytail on the side of your head, if you have long hair. if you have short hair, you can try covering some of it with a hand.

if you have a beard, try doing similar things with it. pull it, stretch it, braid it. the only limit is your imagination.

part 5: eyes + nose

in this section, we try to play around with your eyes and nose. eyes are significantly easier to work with, but the artist's research has shown that noses can also have an impact on how gender recognition technologies see you.

i want to be gendered as a man

we will start with the eyes. try to make your eyes look as small as possible. squint them or perhaps use your fingers to squeeze them together in a way.

after this, we can try doing things with your nose. if you are still gendered as a woman, you can try making your nose look wider than usual. one way could be to push it in with your finger. be careful though, because this might make it more difficult for the machine to see your face.



part 5: eyes + nose

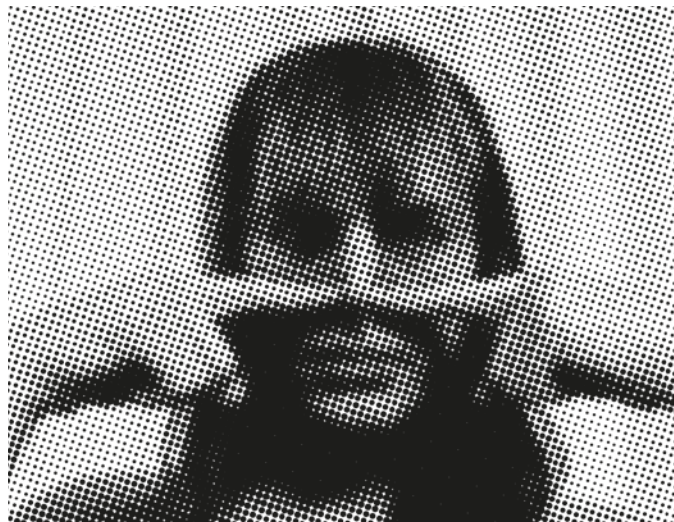
i want to be gendered as a woman

the first thing to do is to make your eyes look as big as possible. open them up as much as you can. the rounder your eyes look, the more likely it is for the machine to gender you as a woman. you can also use your hands to open up your eyes even more if necessary.

the next approach is to work with your nose. here you want to make your nose look as thin as possible. this will probably require you to use your fingers in some way, and it might be a bit difficult to find a sweet spot where you get gendered as a woman while still making it possible for the machine to see your face.

i'm not sure how i want to be gendered

we worked a bit with distorting your eyes and nose back in part 2, and the same rules go in this part. just try to move things around in asymmetrical ways, but perhaps here you can try to only work with your eyes and nose, while keeping your mouth and other facial parts still.



finally, we have some things that do not necessarily move your results in a specific direction but they might do something interesting nonetheless.

first off, if you have any sunglasses on you, you can try to wear those.

if you have any other clothing items that you can put on or off, like a cap, you can try to do that.

secondly, you can try to cover parts of your face with your hands.

if you're feeling adventurous, you can try to paint strange patterns on your face with any makeup or pens you have on you.

depending on your eyebrows, you can try to make a unibrow using makeup or if you already have a united eyebrow, you can temporarily split it into two using your fingers to cover the middle.



part 6: wildcards

conclusion

congratulations! you have completed the misgendering machine gender expression exploration experience.

hopefully, you have learned a thing or two about your own gender expression. perhaps it has been a bit uncomfortable for you to be misgendered, and if that's the case, the artist apologizes. it is part of the experience, but this does not necessarily make it more comfortable.

remember that this machine is built on flawed technology. it is not in any way able to tell you what your gender is. only you can decide that. if you had a hard time getting the results you wanted, keep in mind that gender recognition technologies have racist, ableist, transphobic and other x-phobic dimensions. do not take the results seriously.

furthermore, it only looks at your facial area, and gender expression is so much more. it is how you speak, how you dress, how you move, how you write, how you feel, how you act and the list goes on.

gender is complex, yet "artificial intelligence" tries to put it in neat little boxes. hopefully this experience has taught you why these boxes are a fool's errand, and why using gender recognition technology on others will only serve to discriminate and cause unnecessary harm.

if you want to learn more about gender and technology, you can follow ada ada ada on instagram @ada_ada_ada_art or visit her website <https://ada-ada-ada.art>

thanks so much for participating in the misgendering machine experience.

credits

- joy buolamwini et al — gender shades
<http://gendershades.org/>

- justadudewhohacks — face-api.js
face-api justadudewhohacks

- os keys — the misgendering machines
https://ironholds.org/resources/papers/agr_paper.pdf

- ada ada ada — in transitu project
https://instagram.com/in_transitu_ig