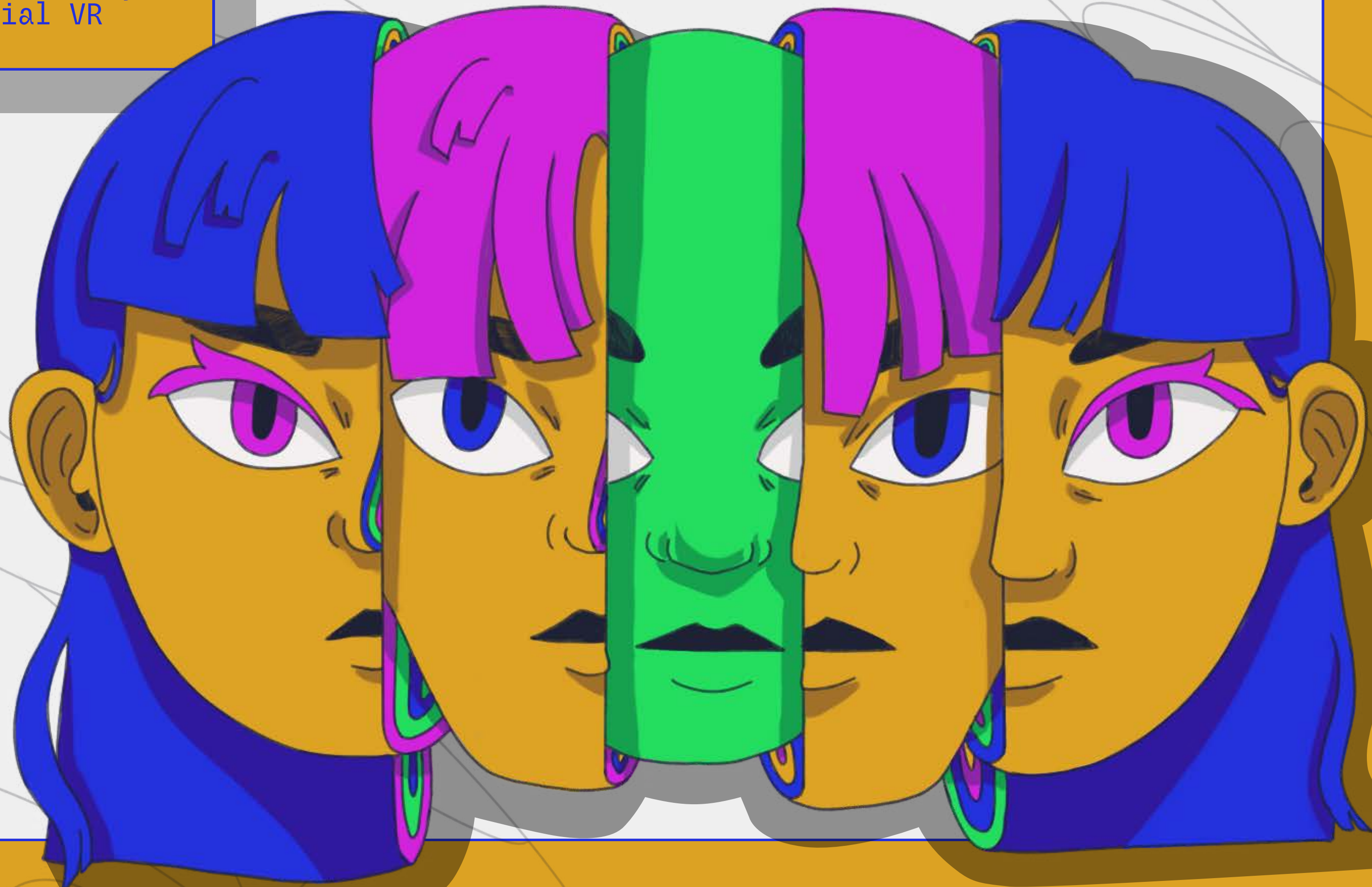


Social VR & Gender Exploration

An open survey of VR users who have explored gender identity and expression in social VR



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Study Information

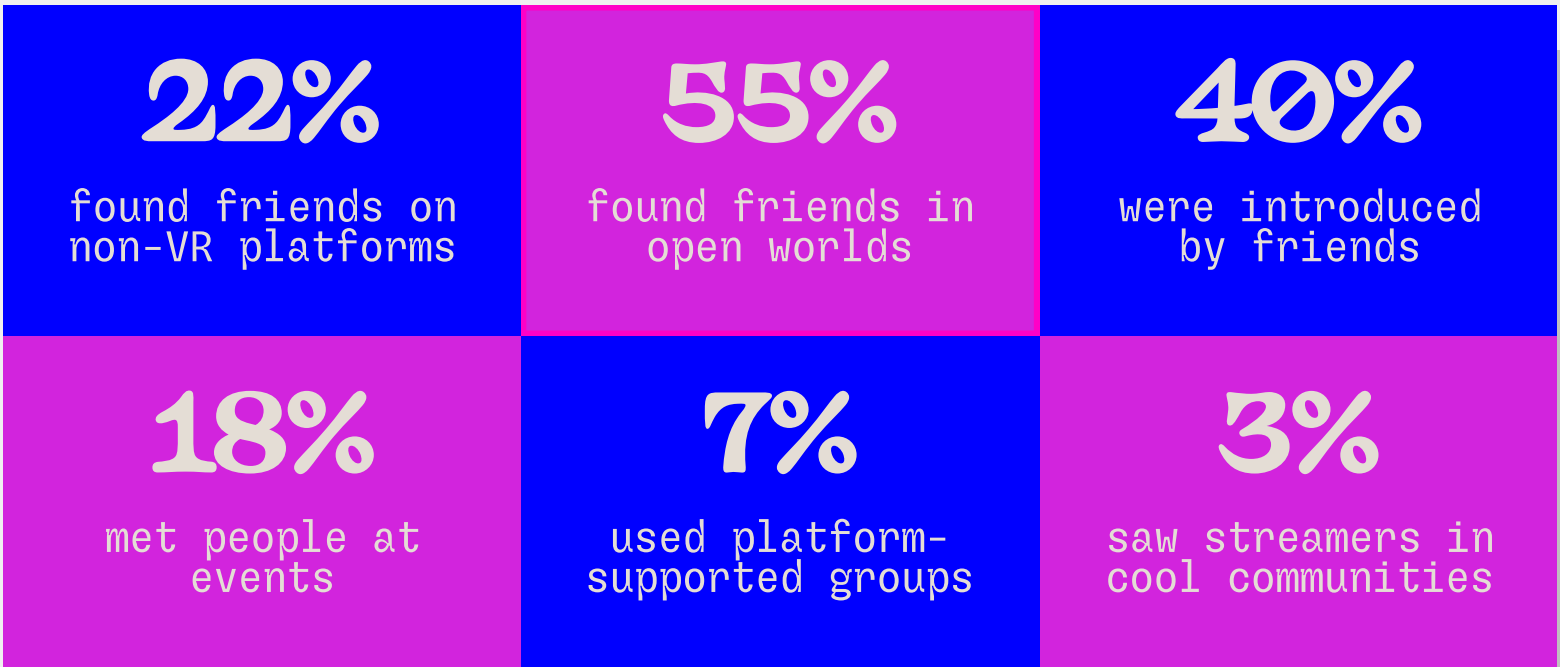
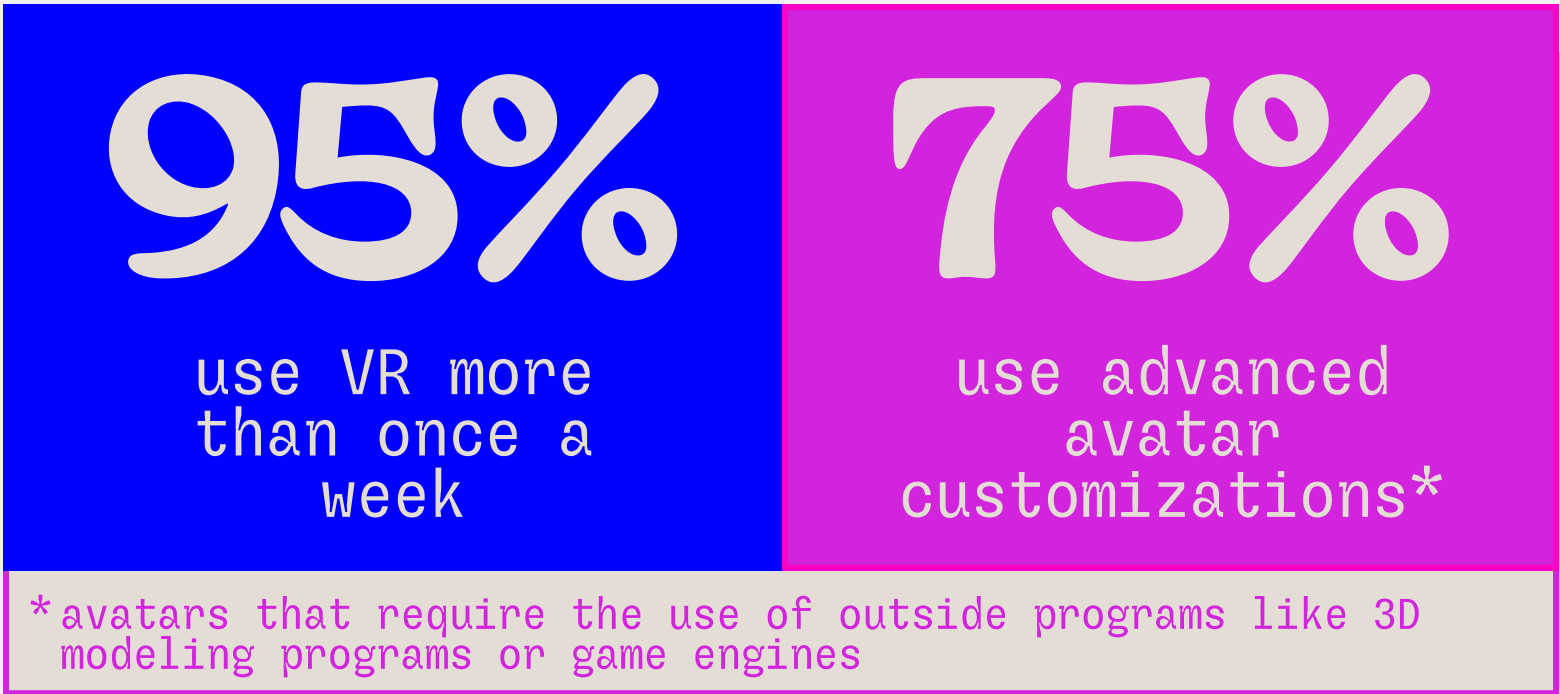
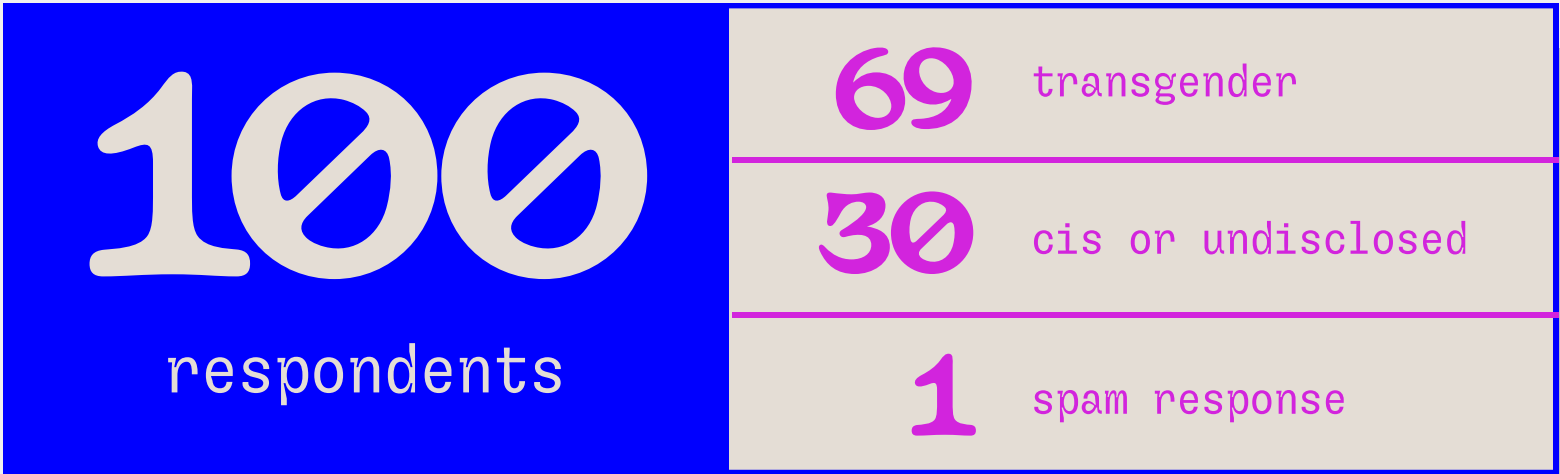
Participants

A total of 100 participants were sourced from VR-related discords, VR subreddits, Twitter, and via word-of-mouth. They self selected as people who had explored their gender identity and/or expression in VR social spaces. Only one user was rejected as a spam result.

Participants were identified as transgender by self identifying as trans in their description of their gender or through mentions of being transgender in their responses. If there was no mention of being transgender, they were pooled with those who identified as cisgender for the purposes of statistical tests.

Those surveyed self identified as frequent users of VR and were sophisticated in their use, often learning new skills for use in VR social spaces.

Over half of users found friends and communities by joining open worlds but they also often found communities and social groups outside of VR before meeting them inside of VR. This results in a good mix of participants with different experiences encountering other users within social VR spaces.



Methodology

There were four open answer questions on the survey that allowed participants to freely write their responses to. Two questions asked for positives around their experiences in social VR spaces, while the remaining two asked for negatives.

The answers from all questions were read, analyzed, and inductively coded based on their main themes. These codes were then analyzed quantitatively to provide these insights. Fishers test was used to identify significant differences between transgender and cisgender participants to indicate which effects were trans-specific.

Because answers were in an open format, it's possible that many participants would agree with some of these findings but did not indicate so in their responses. This method errs on the side of being less prescriptive but means that it speaks less about the overall sentiment towards each of the topics surfaced. Because of this, I expect the reported percentages trend towards underreporting.





The Positives

User's self reported behavior as it relates to exploring their gender identity or expression in VR social spaces

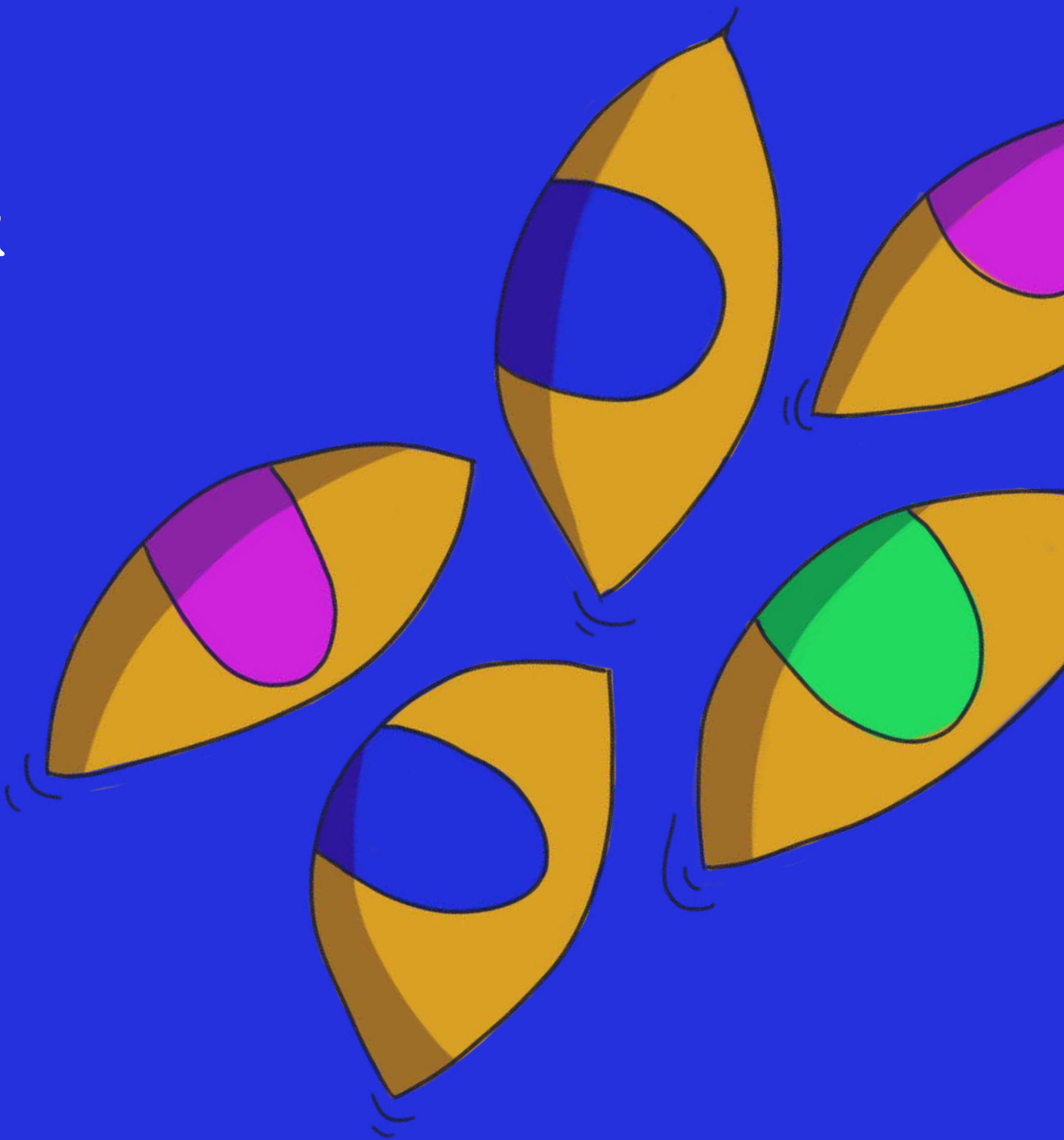
Methodology

The insights in this section are sourced from the answers to the following two questions posed in the survey:

How have social VR spaces enabled you to explore your gender identity?

What do you enjoy about social VR spaces?

The first question explicitly ties responses to gender exploration while the second aims to gather responses about larger benefits of social VR spaces for those who explore their gender.



Self Expression

1/3 of all participants indicated that they used VR social spaces to express themselves and their identities in positive ways. Many cite that it's easier to express themselves, both visually and socially, because the technology enables them to do so quickly and with less repercussions. There were no significant differences between the percentages of transgender people vs cisgender people who identified self expression as something they utilized social VR spaces for.

33% of all respondents use VR to express themselves

“
For now I'm fine with being a guy who can be confident enough to do things without worrying too much about "traditional gender roles" or whatever for things people do. I like my programmer socks and nobody will take them away from me!
-the_virus_of_doom (he/him, cisgender)
”

“
VRChat let me feel more at home interacting with others, because it was a place I could be more openly *me*, and a place where I could look feminine without judgment.
- Erin (she/her, transgender)
”



Figuring Out Identity



Participants indicated that they used VR social spaces as a way to figure out their identity--their experiences there allowed them to solidify how they self identified. There wasn't a significant difference in the percentage between trans and cis respondents. This suggests that VR social spaces are good for figuring out identity of all types, even if just reaffirming and solidifying existing thoughts around identity. 12% highlighted that they enjoyed just being able to try something new out in social VR--something that could indicate self exploration.

43%

of all respondents figured out aspects of their personal identity through social VR spaces

“

I was able to test out how I would feel in a feminine body. It really helped me in knowing transitioning was right for me.

- Monika (she/her)

”

“

I've learned I feel uncomfortable in a fully female form, it's just not for me. That would have been more difficult and time consuming to learn without VR.

- Wolfie (he/him, cisgender)

”

Personal Growth

Close to half of all participants indicated that VR social spaces allowed them to grow in some capacity. This ranged from figuring out their identity, to building confidence and learning social skills. Many of the participants indicated that these were things that they would not have been able to learn outside of VR, due to the sense of embodiment and the ability to moderate their social interactions.

49% of all respondents self reported an aspect of personal growth due to using social VR

24% of all respondents indicated that using social VR boosted their confidence

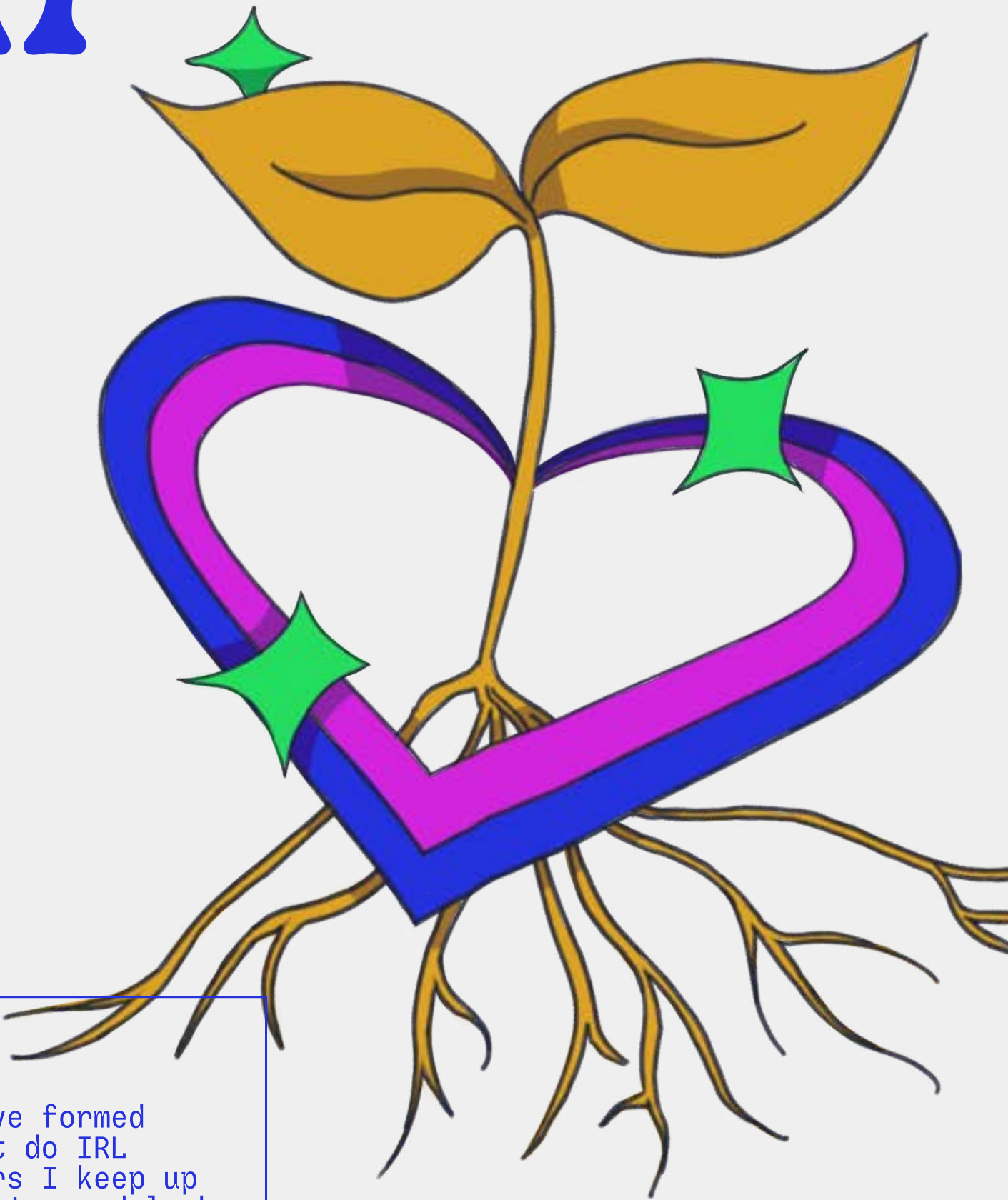
“After sharing so much time with others in VR and especially those that break apart from the expectations of what your gender/sexuality is supposed to be, I found the encouragement to try those things out even if they are not Manly. They make me really happy and allow me to embrace more aspects of myself that I would had otherwise rejected

- Alvaro (he/him)

”

“Being able to present myself in a way of my choosing, without fear of being judged for how I look. I've formed relationships in VR that I couldn't do IRL because of the subconscious barriers I keep up because of my own crippling depression and lack of self-esteem.

- Hero of the Day (she/her)

”

Social Acceptance

Social factors were heavily important in the selection of VR social spaces as a place for participants to explore their gender and as a place for users to feel comfortable. More than 60% of all participants listed finding supportive social groups as a key benefit to socializing inside of VR spaces, with transgender respondents more likely to list this as a benefit.

- 71% of transgender respondents said that VR social spaces were more comfortable to interact in compared to physical spaces
- 57% of cisgender respondents who had explored gender presentation in VR indicated that social groups in VR were more accepting of them as well

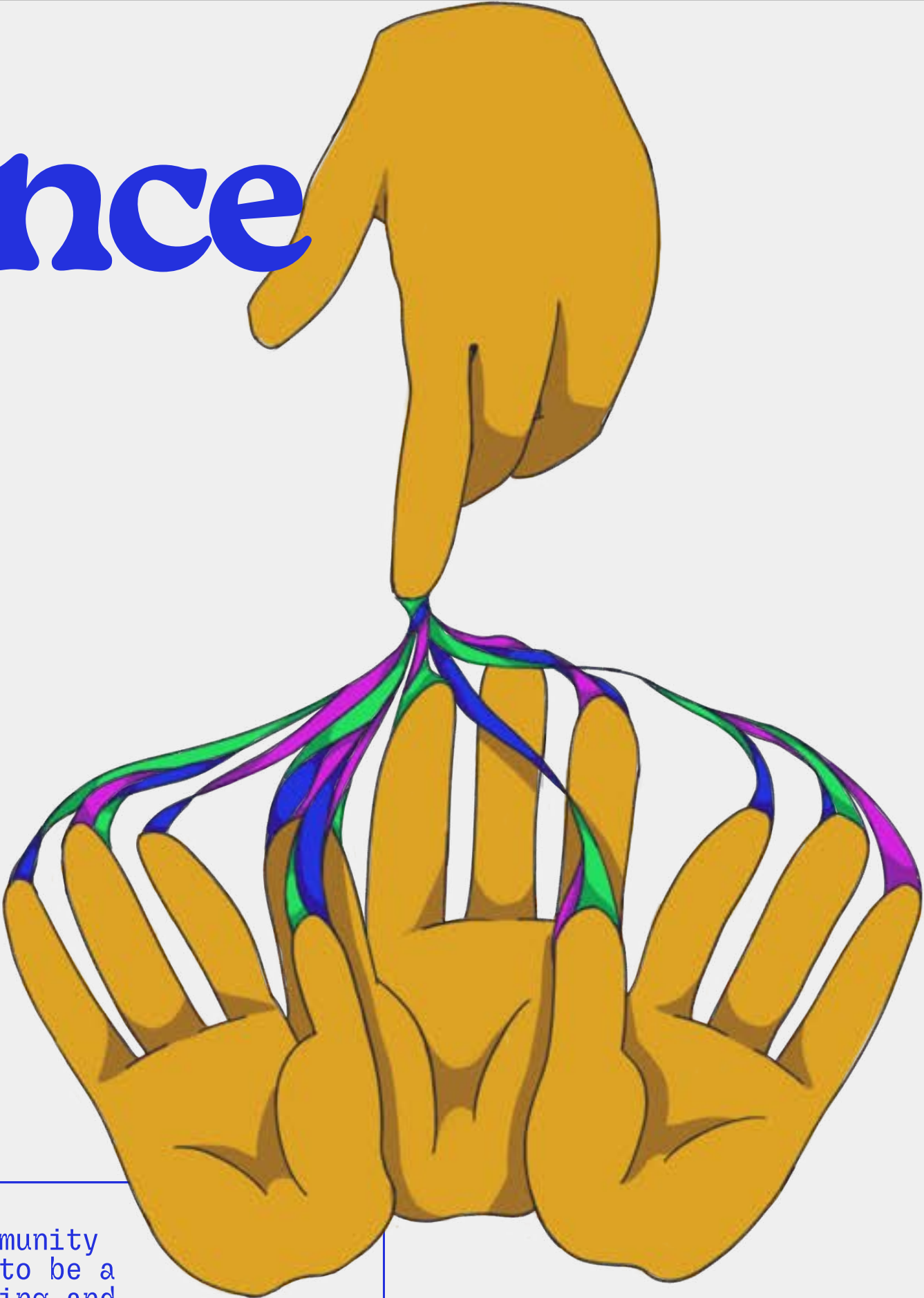
“VR allowed me to safely question what my gender identity entitled, it showed me friends who were supportive no matter what. It truly saved me.

- Rico (they/she)

”

“I enjoy having a social community of like-minded individuals to be a part of. Everyone is accepting and exploring their own self expression.

- Catboy Slim (he/they)

”

Alleviating Social Anxiety



Many participants used social VR spaces as a tool to alleviate their social anxiety. VR social spaces were seen as a safer place to try interacting with other people, due to higher rates of social acceptance and the ability to easily exit bad situations with no larger repercussions--8% of participants highlighted the ability to easily exit scenarios as a key part of why they enjoy social VR spaces. Transgender people were significantly more likely to use VR for this.

42%

of transgender respondents used VR encourage their comfort within social spaces

17%

of cisgender respondents said the same

“

Being able to tear down the barriers of my social anxiety and be a more honest version of myself. I struggle with anxiety and I'm able to be more comfortable socializing in VR.

- Kyle (he/him)

”

“

[There's a] lack of social pressure caused by irl spaces inability to block or leave bad situations

- Anonymous (he/him)

”

Connecting With People You Wouldn't Otherwise

Participants indicated a high rate of wanting to connect with other people, especially with types of people that they might not have a chance to meet within their in-person communities. This ranged from meeting people who would be socially accepting, to international connections, to meeting people with similar niche interests.

37% of all respondents felt that they connected with people they would not have had the ability to connect with outside of social VR



“The ability to spend time with people online with a real feeling of presence rather than as text and audio. I am physically disabled and immunocompromised, so I don't have a lot of opportunities to participate in the public sphere IRL.”
- Rydia (she/her)

“It exposed me to people who gave me a guide and safe space to explore gender identity and process being transgender and helped me to gain enough confidence to pursue transitioning”
- Anonymous (she/her)

Idealization of Body

Many participants mentioned wanting to be an idealized version of themselves within VR, calling out physical aspects that they aimed to change when selecting their avatar. It wasn't about depicting themselves accurately, but rather depicting themselves as they would like to be perceived. VR also provides them options that would not be possible without the technology -- changing facial or body features they don't like or wearing clothes they would not be able to afford otherwise.

1/4 of all participants described themselves aiming for an idealized version of themselves inside of VR



“ I started using VR social spaces after my gender identity was fairly settled, but it's been nice to embody avatars which represent some idealized parts of me which aren't possible
- Ian Lain (fae/it/she/they) ”

“ Same as in other video games where I can customize my clothing I often use it to create looks and things that I like and reaffirm my cis identity but I otherwise don't feel I have the body or money or looks to pull off in the real world.
- Cal (he/him) ”

Flexibility of Switching Avatars

Some participants enjoyed switching between avatars, citing it as a key benefit to trying on different identities or just having fun with their presentation. Participants also suggest that the ability to quickly switch avatars also creates an social environment that is less focused on appearances. 22% of participants mentioned that they believe that their avatar's appearance in VR hasn't affected their treatment, with many respondents saying that this is true regardless of gender presentation.

24% of all respondents enjoy the ability to quickly switch between avatars



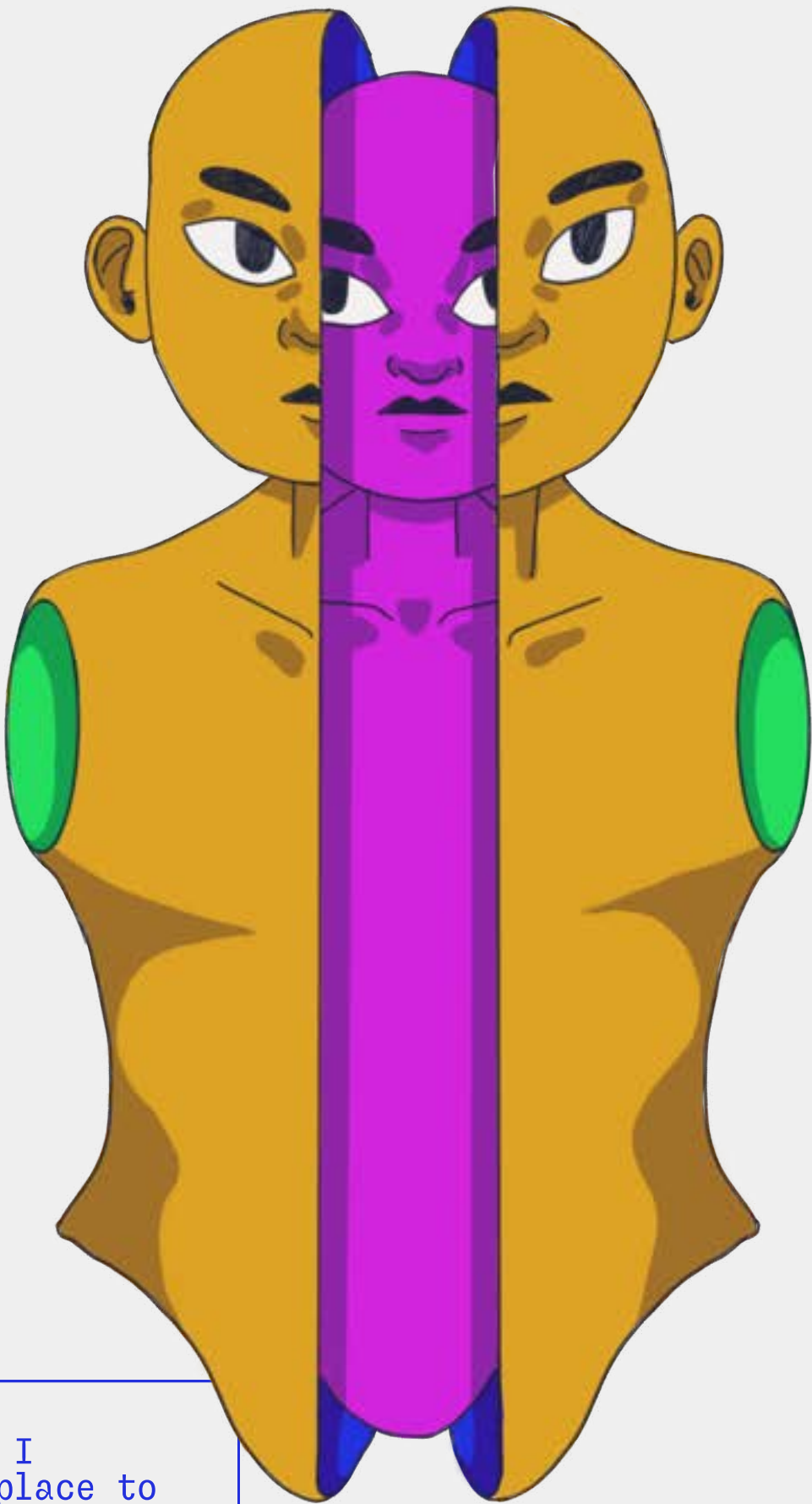
“ Just being able to inhabit a new body instantly, with such a big variety, and with the social aspect of plausible deniability :)
- Taylor (she/her, non binary) ”

“ The appearance one can take may change at the push of a button, this has led many in VR spaces to judge individuals off of their character and personalized identification
- Cozmo (he/they) ”

Embodiment

Participants cited the feeling of embodiment-- the feeling that you are actually inhabiting your avatar's body-- as a benefit to using social VR spaces. It allows some respondents to feel more connected to their virtual body, with some users even mentioning phantom sensation linked with their virtual avatar. Others mention embodiment being a powerful factor that enables them to alleviate their gender dysphoria while inside of VR.

37% of all respondents say that embodiment is an important part of why they enjoy VR spaces



“I'm not a "metaverse" nut but to embody your avatar as you do in VR lets you well and truly put on a costume and walk around in those virtual shoes.

- Cortez Acosta (he/they/she)

”

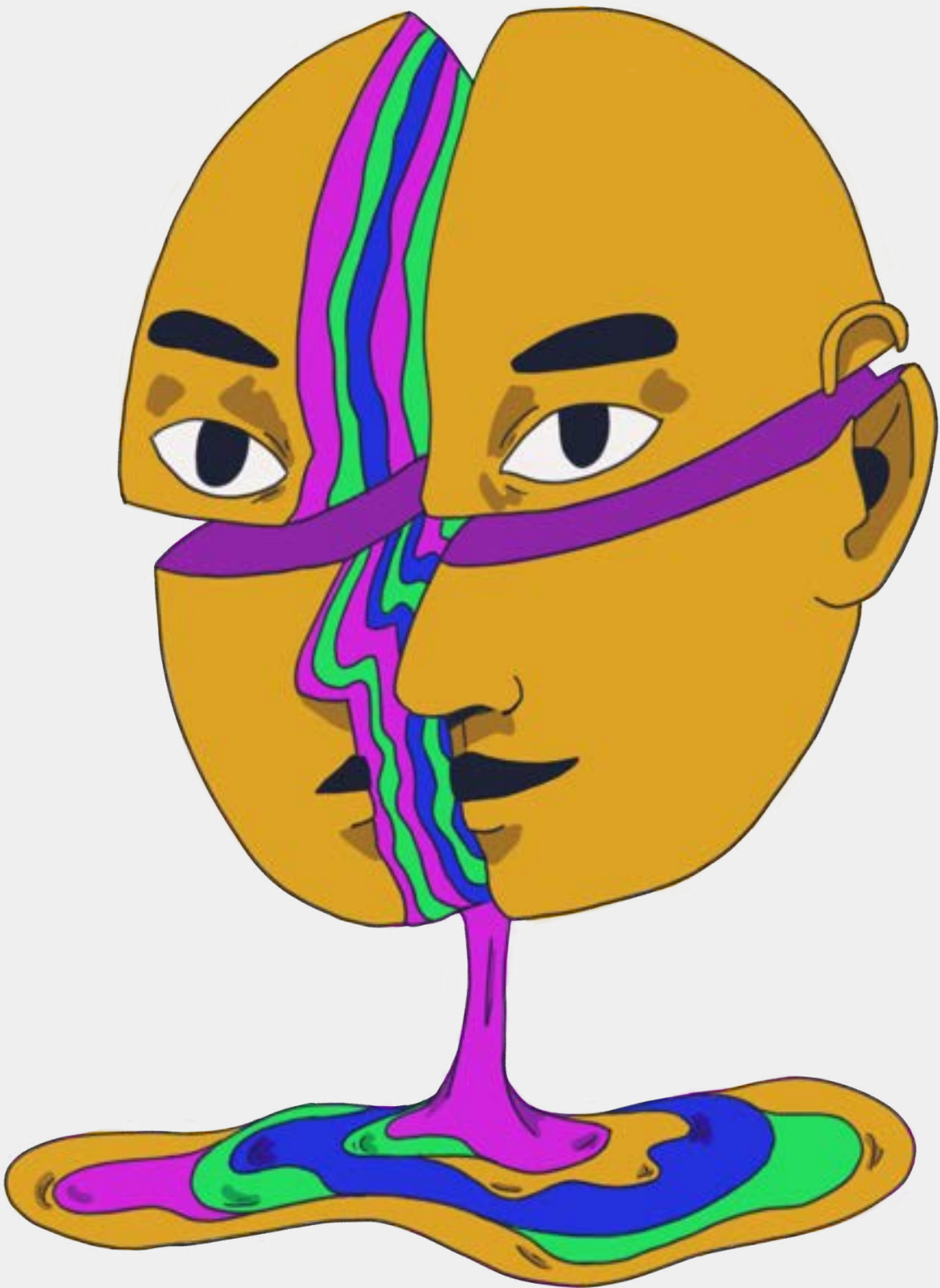
“[It's an] embodiment of something that I physically am not in real life. And a place to express myself in ways I wouldn't dare to in real life, allowing me to realize more of myself.

- Anonymous

”

Alleviating Dysphoria

Gender dysphoria is one of the largest concerns of transgender people. Users reported that they alleviated their dysphoria through embodying VR avatars and interacting with others while presenting as their gender. Because dysphoria is generally a transgender concern, this is reflected in the significant difference between the number of transgender and cisgender respondents that indicate alleviating specifically gender dysphoria as a benefit. 5% of all respondents (all transgender women) used social VR as a way to train their voice.



42%

of transgender respondents have used VR to alleviate gender dysphoria

7%

of cisgender respondents used VR in a similar capacity

“

VR has enabled me to reinforce my gender identity through avatars, as a kind of way to soothe my dysphoria and to present myself easily as the way I wanted.

- Alexandra (she/her)

”

“

I'm not able to physically transition yet, so using avatars that align with my preferred gender presentation makes me feel happy.

- Ezekiel (he/him)

”



The Negatives

What users flagged as their largest concerns
when considering the VR communities that they
are part of

Methodology

The insights in this section are sourced from the answers to the following two questions posed in the survey:

Do you have any concerns about VR social spaces?

Is there anything you wish you could do or see more of in VR social spaces?

These questions aimed to gather the larger concerns of people exploring their gender within social VR spaces.

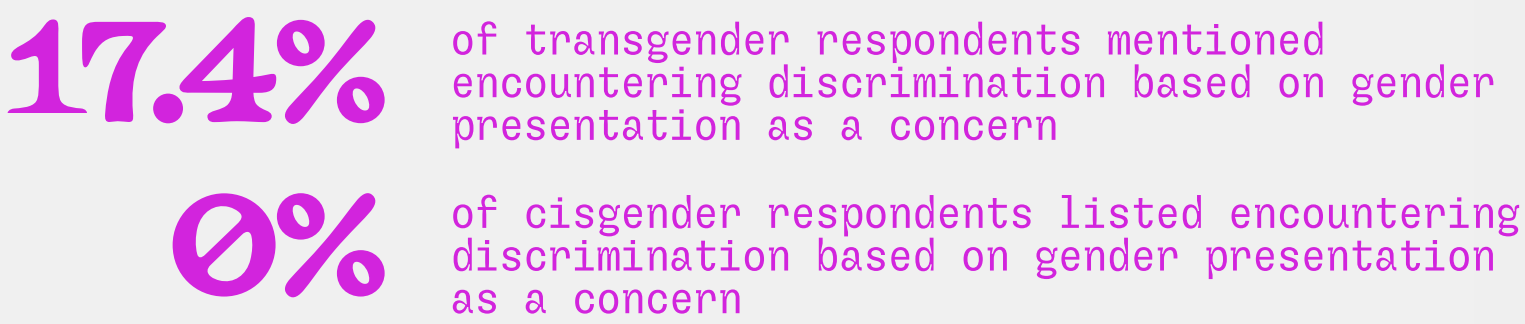
There was less consensus amongst participants about negative effects compared to positive effects--the highest percentage of people who mention the same negative effect was 34%, compared to 67% for positive effects so you can expect percentages to be lower in this section.



Discrimination

Trans users were significantly more concerned about encountering discrimination related to their gender presentation when exploring VR social spaces compared to cisgender people surveyed.

However, it was mentioned at a much lower rate than other concerns mentioned by respondents, which supports the idea that many users find VR to be a positive place to explore their gender identity or presentation.



“VRChat has spaces with the sole intent of hosting LGBTQ people/allies/whoever and that's a great thing, but of course, some could see a solely LGBTQ space as a target. Very obviously, this is something that happens in real life to a much worse manner. I just wish people weren't so cruel.”

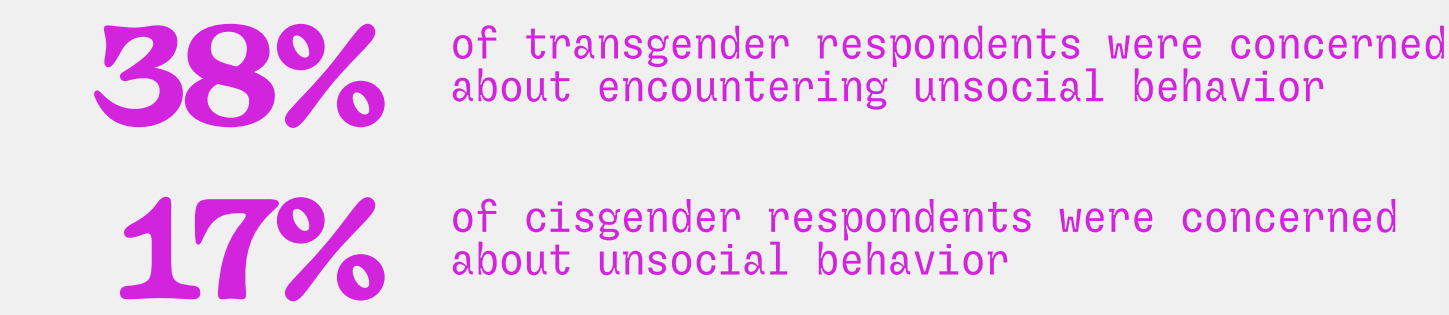
- Cortez Acosta (He/They/She)

“some communities are sadly still very underrepresented or face a lot of harassment. even in those virtual spaces where those differences do not matter at all. and i would wish that those groups had a way to unite, a way to connect and a better way to defend themselves against the hate they face while in the virtual world”

- Anonymous (she/they)

Unsocial Behavior

Participants were very aware of a large population of users having bad behavior, often on purpose, and cited unsocial behavior as a problem. Transgender users were more likely to be concerned about coming across unsocial behavior, which could be a reflection of the problems of discrimination within social VR spaces or in society at large. A smaller percentage (5%) were concerned about VR social spaces teaching people how to behave poorly.



“VRChat has useful tools to purge antagonistic people from spaces, but that doesn't stop them from interfering with other users even if it's only for a moment.”

- Cortez Acosta (he/they/she)

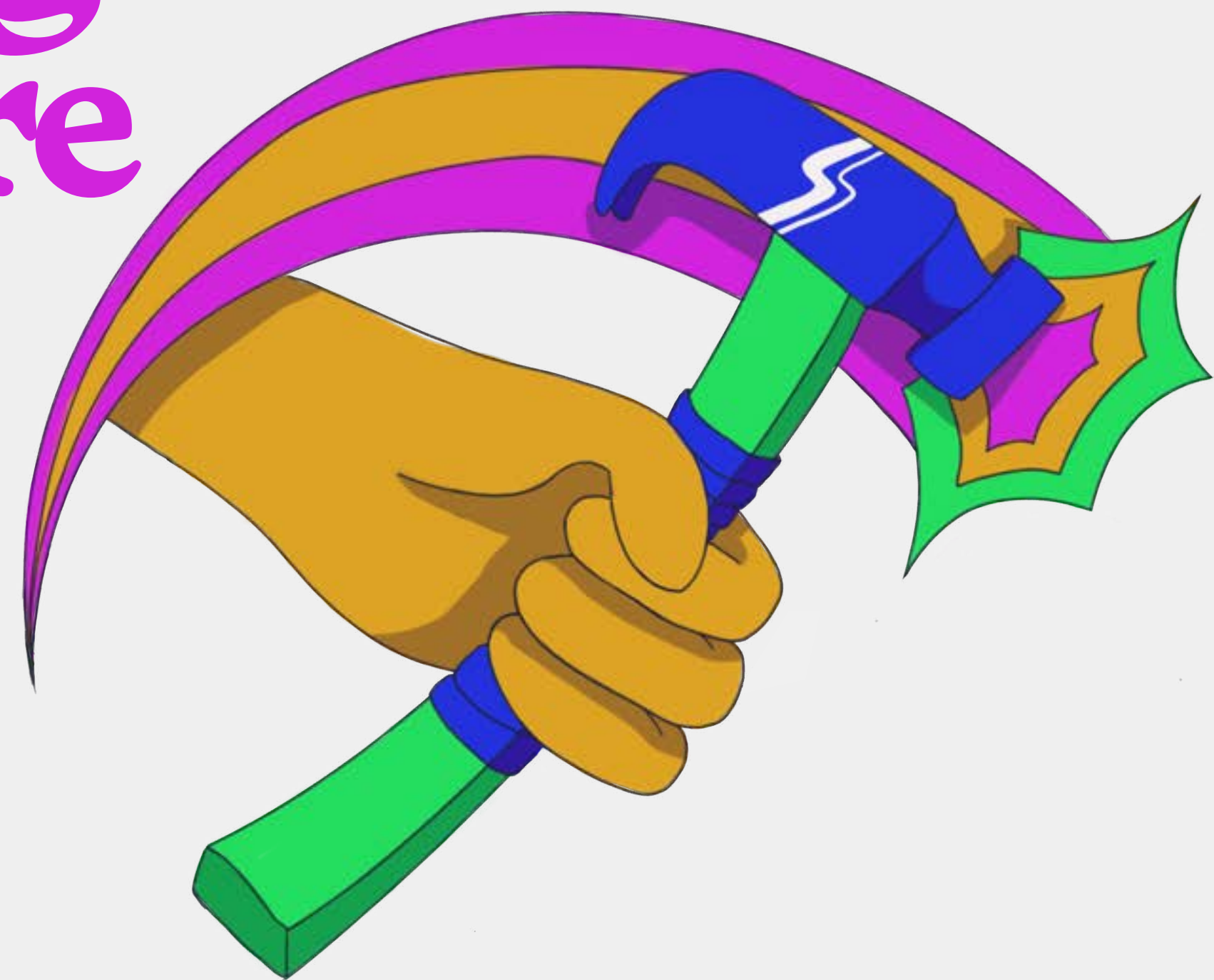
“Aside from the obvious concern of malicious hacking, I worry people won't respect boundaries or will otherwise harass me or others.”

- Anonymous (she/they)

VR Impacting Behavior More

VR has the potential to impact behavior of its users more due to its immersive nature--this has already been studied in the field of virtual training. While this was not a concern brought up by a large percentage of respondents, this could be an indicator of a future concern within the community. Respondents indicated specific community concerns around harassment and assault feeling more impactful inside of VR.

6% of all respondents were concerned about the larger impact that VR's greater immersion may have on users



“VR social spaces can suffer from all the usual issues that any online social space can, but with the increased feeling of presence, harassment and assault can feel a lot more real.”

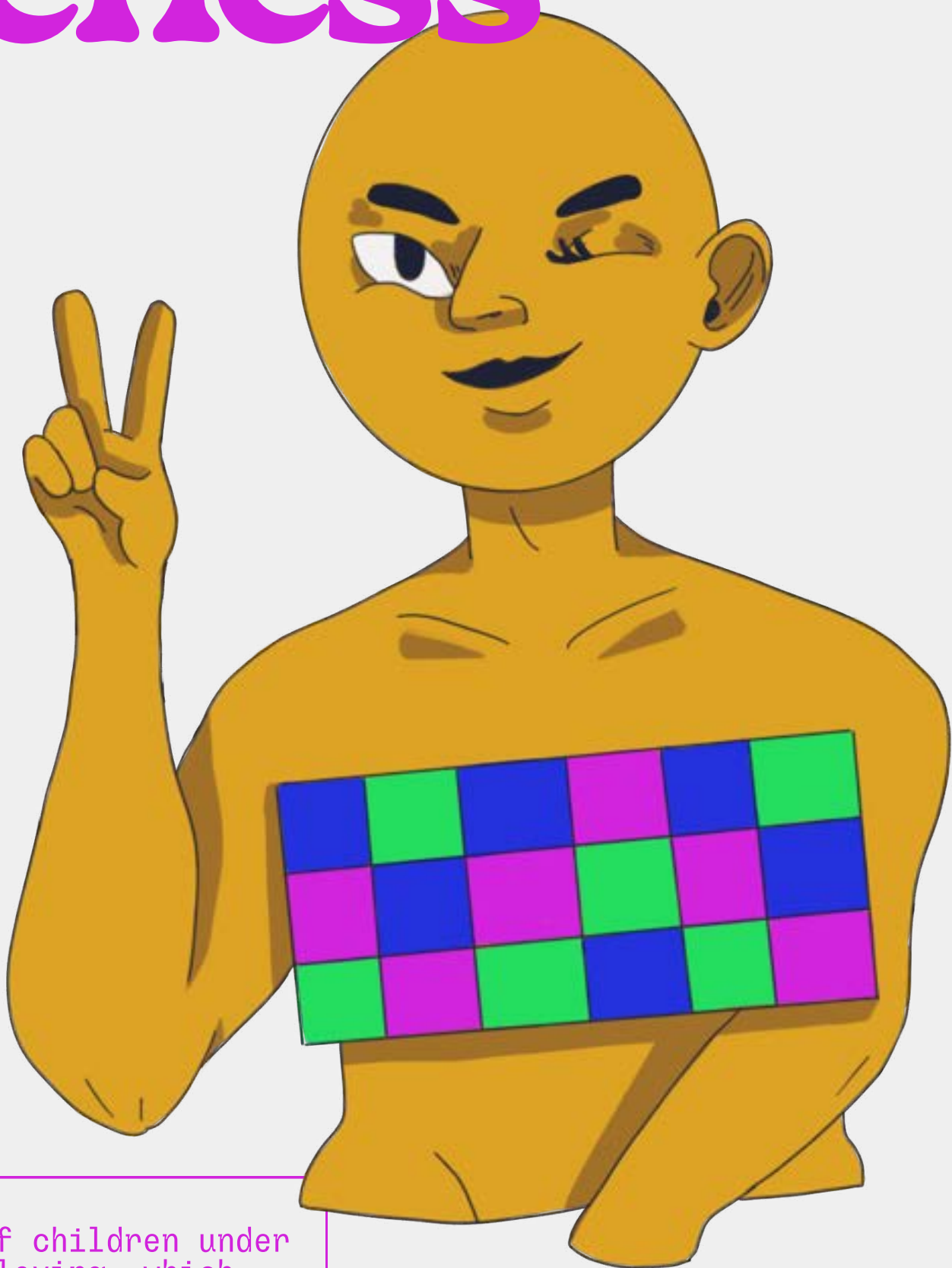
- Anonymous (she/her)

“The anonymity people have if they want to harass, though this is not specific to VR social spaces, but the impact can be much greater and more harmful and personal.”

- Anonymous (she/her)

Age Appropriateness

This was the biggest concerns brought up by participants. There is a large concern around minors having easy access to content that isn't appropriate for their age. Many responses indicated that there are currently no good solutions to address the large population of minors accessing 18+ VR social spaces, especially in VRChat. The prevalence of younger users in social VR spaces itself is also a concern, with many participants mentioning wanting adult-only spaces. More than one participant called out the lowered costs of entry with the Quest 2 as increasing the rate of children accessing social VR spaces.



34% of all respondents were concerned about minors being exposed to things that weren't age appropriate

“ I truly wish there was a separation between the kids under 18...I still want the kids to have fun, I work with kids in the summer and want them to enjoy VR but thrusting us all in the same learning environment when they are not old enough to see a threat is detrimental to the whole

- Freaky ferret22 (she/her)

”

“ VRChat has an extensive amount of children under the age of the maturity rating playing, which leads to concerns typically following that of said issue. (exposure to adult situations, violence, etc.)

- HuntersAce (he/him)

”

Moderation & Accountability

Users were concerned about the lack of moderation in social VR spaces. This lack may stem from many factors--lack of resources, lack of technology solutions, etc.--and more often than not, the onus is on groups or individuals to self moderate when it comes to existing social VR apps. This distrust of existing moderation may be due to the proliferation of bad behavior within social VR spaces, but may also be rooted in the distrust of current moderation policies of social media that often don't protect its users.

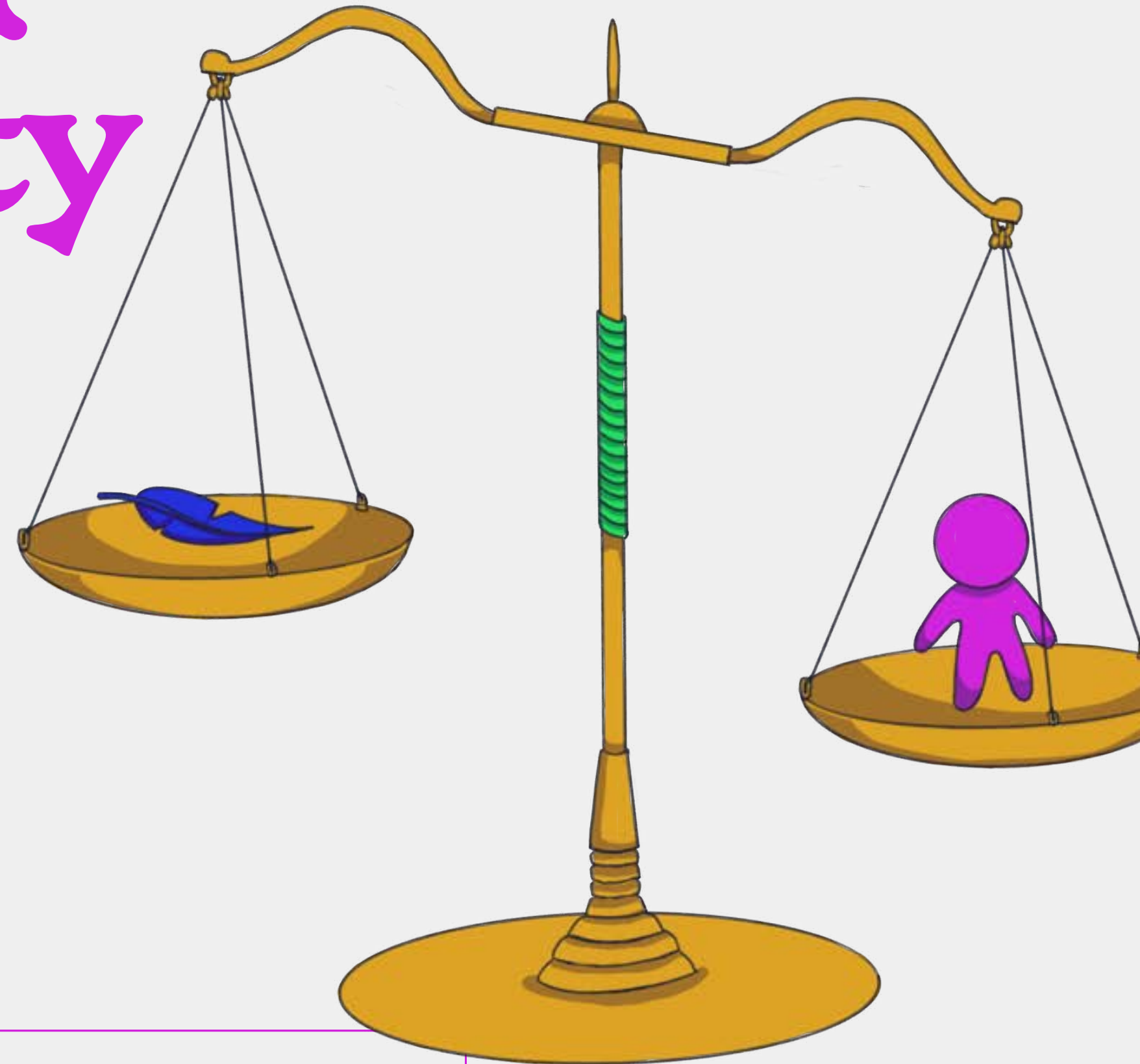
12% of all respondents were concerned about the current state of moderation in social VR spaces

The impact of problematic behavior perpetrated against you in VR can be close to the same level as if it happened in real life, but since it's "on the internet", a lot of people think they can ignore social behavioral rules without consequence, so strong moderation systems are very necessary.

- Anonymous (he/him)

With how lax and unmoderated the current popular VR social spaces are at the moment, the access for children is unbelievably high. You can get a Quest 2 for around \$150, and it unlocks a world of possibilities, as well as an entire world of predators and unsavory content for minors to view.

- SectionVR (they/them)



Addiction

Addiction featured in quite a few responses and in two separate types of concerns. Firstly, there is concern around VR social spaces being themed around alcohol or other substances (e.g. popular VR worlds being bars or clubs). These spaces encourage people to drink while playing VR and ties socializing with substances. Secondly, there is concern about VR becoming addicting because it can be easy for people to rely on it for all their social interactions since it makes communication less anxiety-provoking or it decreases their dysphoria. They may become over reliant on it instead of tackling things in the physical world.

10% of all respondents were concerned about addiction in relation to social VR



“VR social spaces have allowed me to feel more feminine and more myself, but I want to say for everyone else that it's also a danger if you let yourself get sucked in, away from reality.”

- Aniko (she/her, transgender)

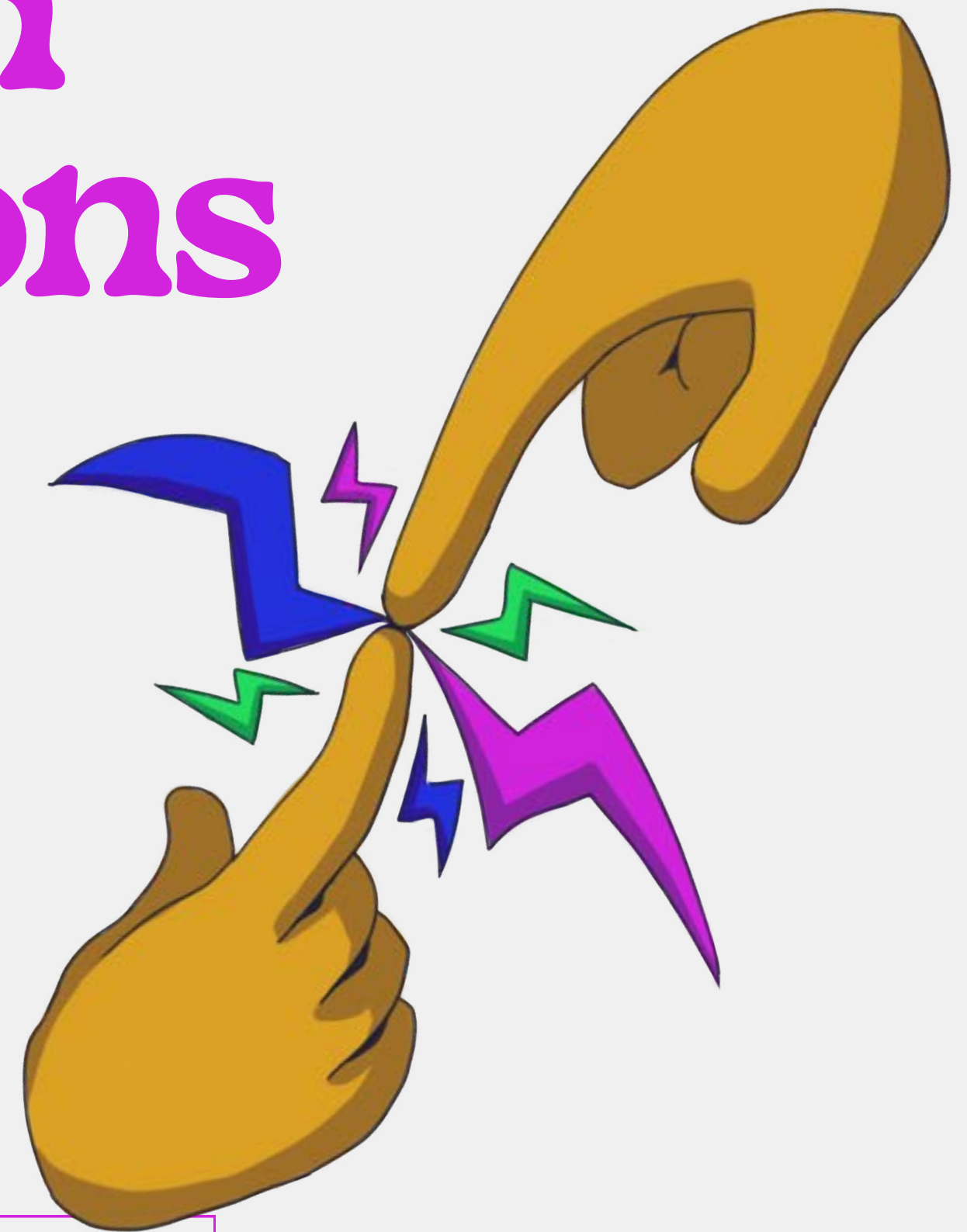
“Addiction. I have a friend (now sober) who was a chronic alcoholic over VRChat. He has over 10k hours on the game. Nowadays he still plays the game daily but he has been sober for 6 months or so.”

- Sara (she/they)

Wanting to Form Better Connections

Participants wanted to form better connections with others, which indicates that some of the positives--social acceptance, reducing social anxiety, and connecting with people you wouldn't otherwise meet--may not be enough for users to feel like they have the ability to connect with others on a deeper level inside of VR. Participants report that the lack of deeper connections result from a lack of collaborative experiences and a lack of community discoverability.

16% of all respondents indicated a want to form better connections with others inside of VR social spaces



“

I have witnessed people around my age...that are having a harder time connection with people in the "real world"...I think it will be harder for people who have started [their] VR journey to find love unfortunately.

- Freaky ferret22 (she/her)

”

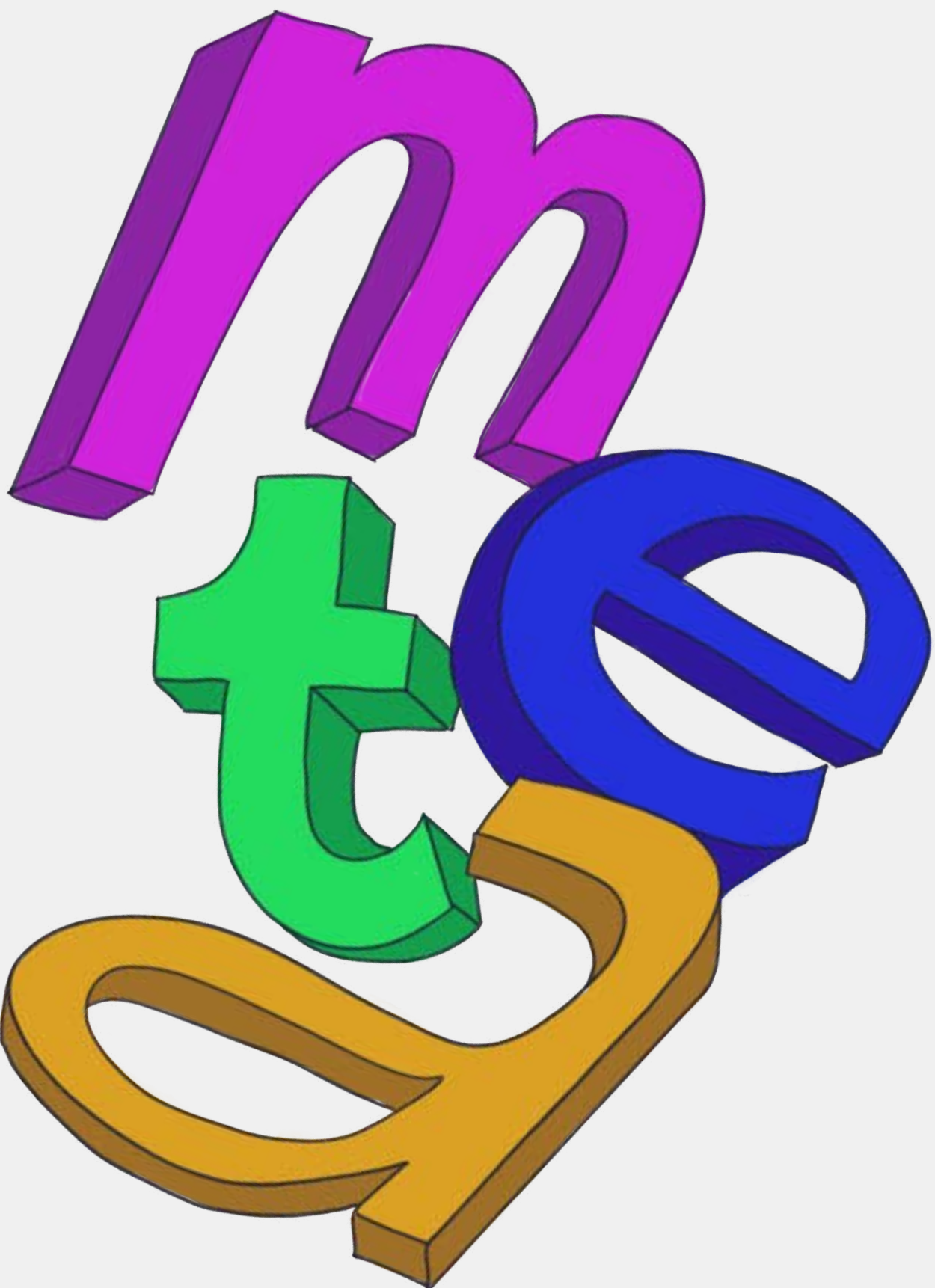
“

Mainstream game development focuses on high octane action and excitement, and on the opposite end you have games that are pretty much sex fantasy simulators. There's not much in the middle that allows you to develop intimacy and deep friendship with other people you meet online.

- William Roysdon Murray (he/him)

”

Corporate Control



Participants indicated that they were concerned about the future of the social platforms they used and the corporate interests that may result in changes to those platforms. Because gender exploration goes against the norm, it's easy to see why large corporate control may threaten the communities that the participants have formed.

- 11% of all respondents specifically called out corporate control as a concern, most listing as their only concern
- 6% of all respondents had privacy and security concerns, often mentioning platform control as a root cause

“Facebook needs to knock it off with that metaverse crap. All my homies hate artificial scarcity.”
- Catboy Slim (he/they)

“Major companies like Meta destroying the integrity of these spaces, commercializing and monopolizing a new what to communicate.”
- Anonymous (she/her)

Discoverability

Participants found that it was often hard to find worlds, groups, interactions, and events-- something backed up by how participants found their friends in social VR. Close to half of all participants not finding friends in open worlds, most relying on word of mouth from existing friends or external platforms to form their own social groups. This can affect current users who may not be able to find new things to do, but it can also affect new users who may not find anything engaging.

- 14% of all respondents indicated that they were not happy with how current social VR platforms presented worlds or social groups
- 19% of all respondents indicated they wanted to see more events, things to do, or places to visit

“ [I wish there were] more trans/queer centralizing spaces, easier access to knowledge of where to find them.. I love gaming that involves teamwork/collaboration and would love doing more of that with the community

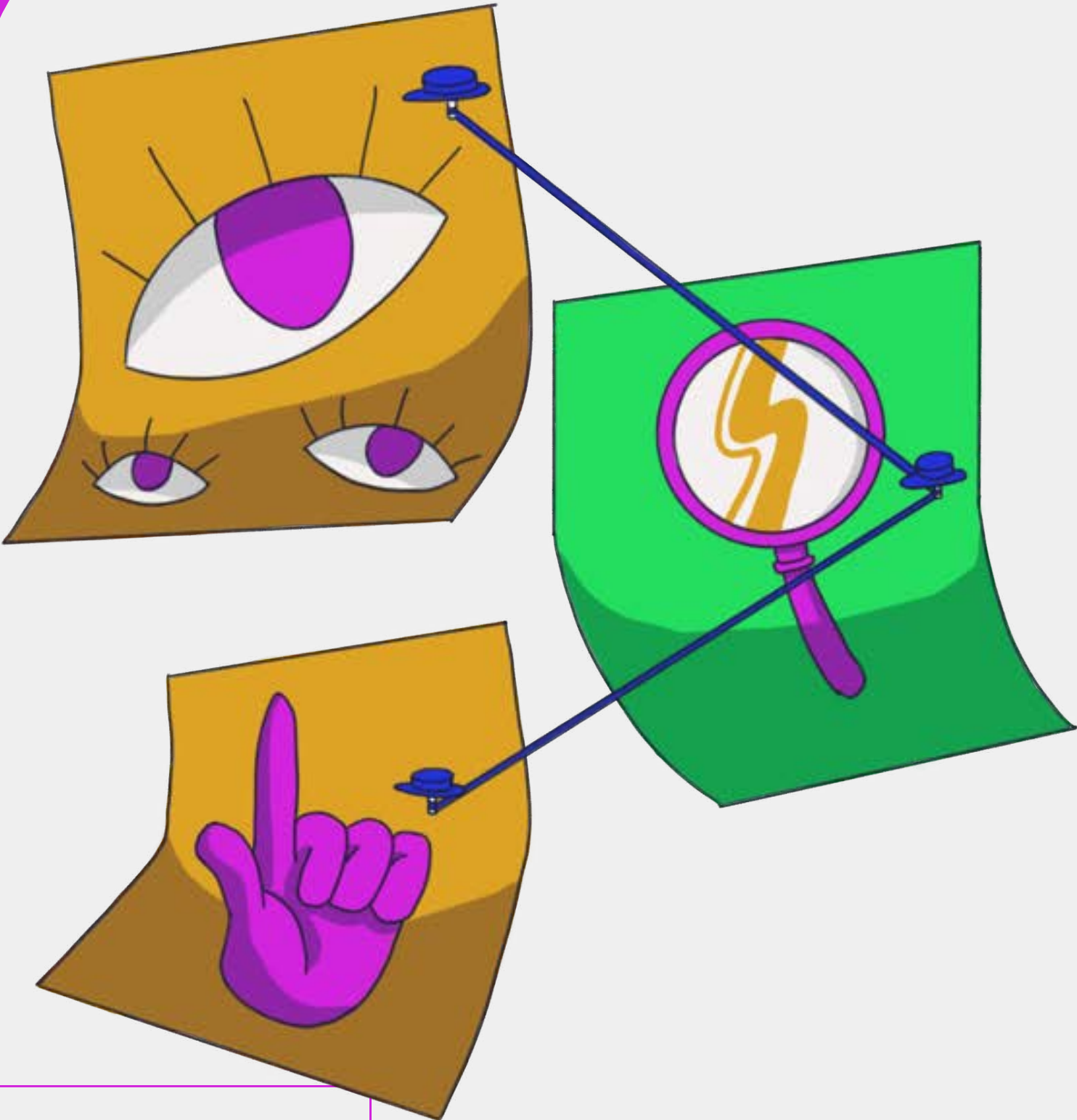
- TJ (they/them)

”

“ We need to find new, better ways to curate and share great new content.

- PK (he/him)

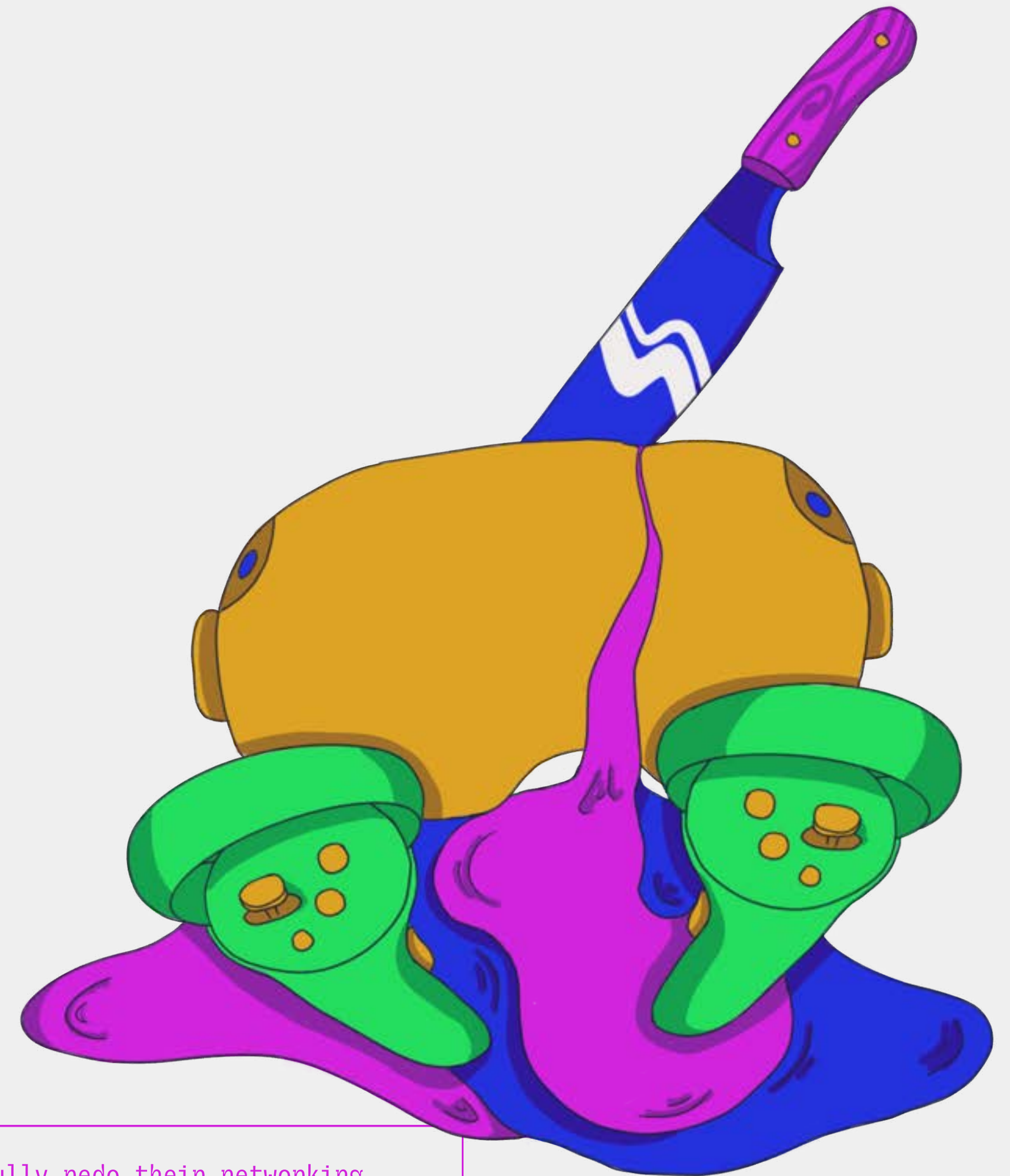
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Technology Limitations

VR technology has enabled people to feel embodiment and has affected people's behavior, even in its current state. However, participants indicate that they are still looking for improvements, especially in areas around tracking, embodiment, and immersion. Participants wanted to feel a better connection to their avatar self, as well as have the ability to better communicate with others using body language. There were also concerns around high costs of entry and graphics hardware limitations.

30% of all respondents wanted VR technology to be better than what's currently available



“More expressions. Face and eye tracking would, i think, bring our social interactions to the next step if it became more mainstream.

- xCirrex (they/them)

“VRChat needs to fully redo their networking frameworks and work on ways to allow clubs to auto-moderate or force enforcement on avatar optimizations. Only then will we see (albeit rare and only with optimized avatars) large instances of over 100 people regularly.

- Wolfie (he/him)

Better Customization Tools

The current bar of entry to VR customization is fairly large. For instance, VRChat requires knowledge of 3D modeling apps and the Unity game engine to be able to manipulate the way you show yourself to other users. Apps that allow for customization without these tools, however, are limited in options. Participants indicated that they really want better control what they look like but also have a lower barrier to entry. That being said, 75% of all users surveyed indicated that they used avatar customizations that required knowledge of external tools.

17% of all respondents wanted better tools that would enable them to build avatars and worlds quickly and easily

“

I do wish that customizes had more and more options or that making my own custom things had a lower barrier of entry.

- Cal (he/him)

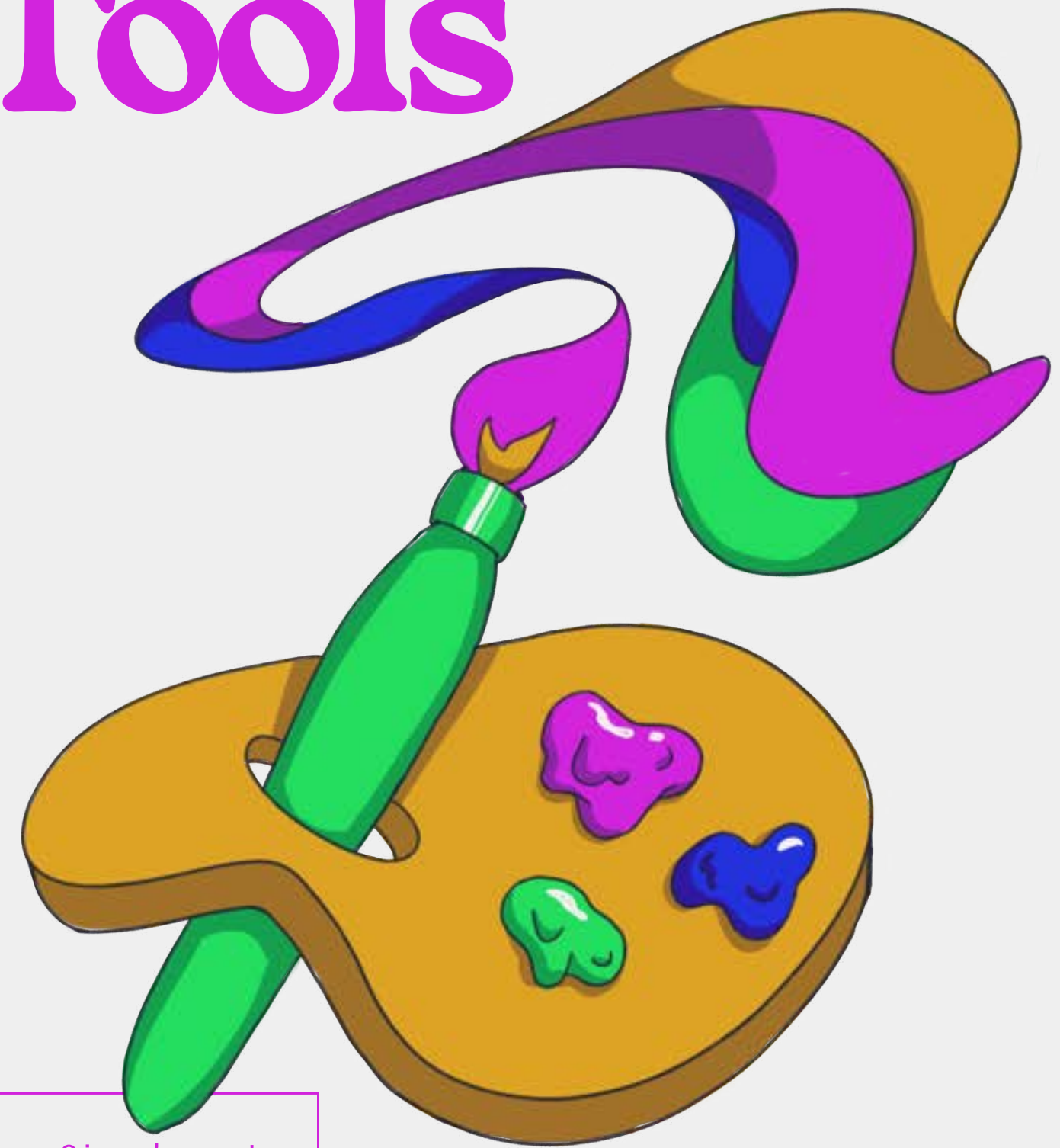
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Unity and Blender proficiency seems Sisyphean to most players, me included. I would love more VR social spaces to offer more ways to create things more easily - maybe even to the point where world creation can be done in-game, like in Neos.

- Erin (she/her)

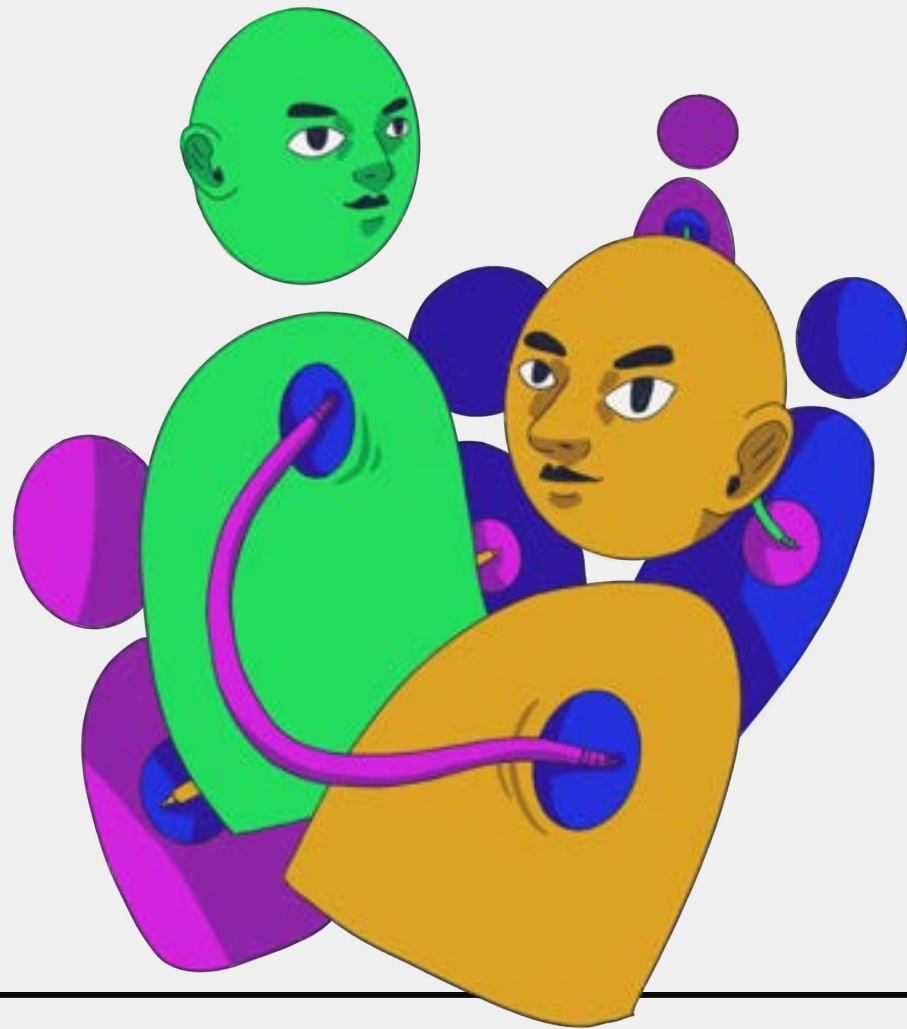
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Summary

Learnings



Many gender variant users in social VR spaces are looking to find deeper connections than they feel like they could find outside of VR. This is only helped by things VR is good at--immersion, embodiment, and being able to connect with people from anywhere in the world



Finding safe spaces and better communities is paramount for users to feel comfortable exploring gender. There is a lot of concern around whether or not users feel safe and many stick to groups they already know, but discoverability of these groups is low



Users must feel like they have agency over their appearance--it's important for them to feel comfortable in their own skin and they are very aware of how they are presenting themselves. They will learn tools or find people to help them to make complex changes.

Thanks

Thank you to all the communities that allowed me to share this survey -- Trans Academy, the Virtual Reality discord, and r/asktransgender. Thank you to all of my Twitter friends who helped spread the word

Thank you to Dave who helped me make sure my statistics work wasn't completely wrong

and most importantly

Thank you to all the participants of the survey, with whom this report would not be possible in the first place

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