

A PREVIEW: AVATAR RESEARCH WITH FOCUS ON DIVERSITY

The purpose of this document is to highlight potential opportunities that will enhance user experience while taking into consideration research into user behavior tied to various diversity issues seen in various avatar systems. One of Facebook's core goals is creating for everyone, which means any ecosystem we propose should show we have considered inclusion on the same level as other features.

Core Goals:

- **History of Diversity Issues with Avatars**
- **Current State of Avatar Creators**
- **Research Opportunities**
- **Research Highlights**
- **Impact on Experience Design**

History of Diversity Issues with Avatars

Before an attempt can be made to improve upon diversity issues within Avatars, it's important to understand how we got here and what ways we can mitigate making the same mistakes as we continue to grow and innovate.

How we got where we are:

- **Education:** A large amount of issues starts at the education level, where students are taught to mimic idealized human faces based on Caucasian characteristics.
- **Defaults:** In many art programs, white males are set as default, meaning many learn to perfect that standard.

What we can do:

- **Education:** Take time to educate ourselves on some of the issues around non-Caucasian characteristics in both games and other media such as film and photography.
- **Default:** Get in the practice of not using a Caucasian male as default for tests, or sharing new techniques.

Current State of Avatar Creators

Avatar Creators are not new thus any avatar creator opens itself up for comparison to current ones on the market. For this research it's important to recognize what has been successful in allowing users to create diverse avatars that look like them and help them feel more connected to the product. This is a quick summary of what research has uncovered thus far:

- Minorities are very much aware that most avatar creators lack the ability to create themselves at the level Caucasian males can. Top Complaints include:
 - Defaulting to white males
 - Limited Hair Texture options
 - Limited Darker skin tone options
 - Skin hue change without ability to change actual facial features
- EA has instilled something interesting in their culture in that many of their products, past and present have avatar creators that appeal to minorities.
 - The Sims
 - Dragon Age Origins
- Special Acknowledgements
 - Guild Wars 2 has the largest range of darker skin tones compared to most avatar creators

Research Opportunities

There are many things to consider ensuring Oculus avatars is designed and developed with inclusivity in mind.

Oculus needs to understand the impact of the work:

- “...being able to act through a character closer to an ideal self may help create positive real-life changes and increase a person's well-being.”
- “...it's stated that a higher similarity between player and personal character leads to increased identification with the character, we can assume that character-player similarity leads to media enjoyment.”

Oculus needs to be aware of the things users are aware of:

- Avatar Body Language
- “For years, I have struggled to make a half decent in-game avatar of myself using create-a-character tools. Too often the customization options for minority characters have either been too limited or simply nonexistent to allow satisfactory realization.”
- “I understand it is the most difficult thing to render, but I've yet to see a game really blow me away with the hair options offered. Sometimes it is frustrating because the existing options COULD have been very good, but they have something awkward about them...”
- “Most [character creators] still reflect the whole white=default thing, even if they try not to. That's something that still needs to be changed.”
- “In many games that allow you to customize game characters the black character simply has brown skin; the model of the character, in the face, looks like a Caucasian character w/black skin.”
- “skin-tone options alone do not necessarily cover socio-cultural and racial diversity.”

Oculus needs to be aware of the top issues minorities have difficulty with, current research leans toward the following top 3:

- Hair/Texture/Styling
- Skin Tones
- Facial Features

Oculus needs to be aware of how minorities approach avatar building:

- Do they look for specific things first to see the likelihood of creating an avatar like them? (see above)
- How do they react to different defaults? What default would they prefer over the standard Caucasian male?
- What other things would they like to exist to make it easier for them to create themselves?
 - Look at Sims Community and what the large minority community has focused on for mods:
 - Hair, Skin Tone, Body Shape, Eyes, Clothes, etc.

Research Highlights

Research is ongoing, here are some highlights.

Looking thru a dissertation on avatar creators in fantasy games, deep dive on hair options:

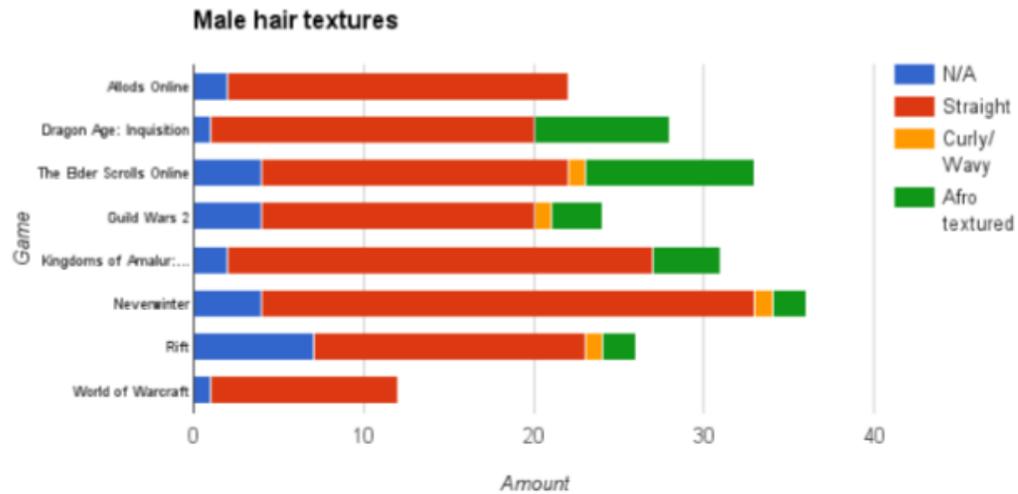
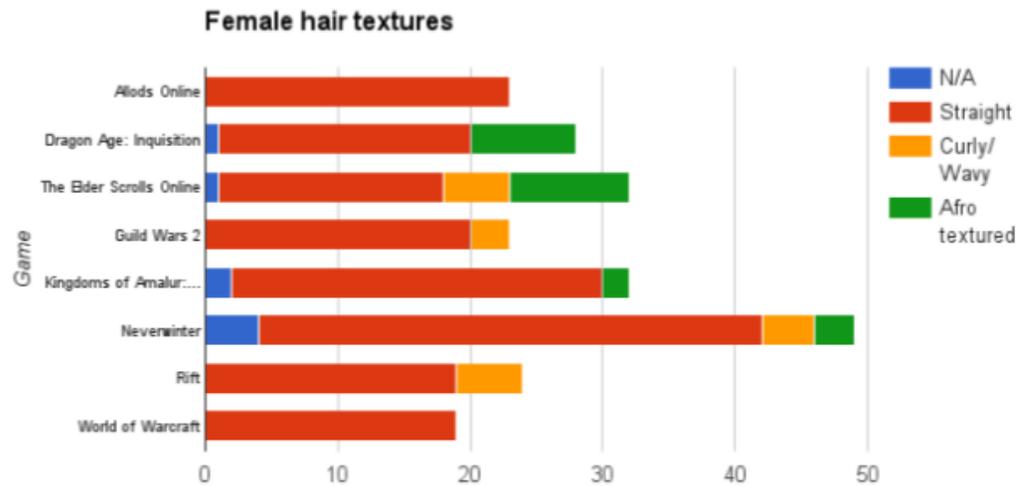


Fig. 11, Male hair textures.



Looking thru a dissertation on avatar creators in fantasy games, deep dive on facial shapes and their relation to diversity in avatar creators:

Facial feature graphs:

Dragon Age: Inquisition:

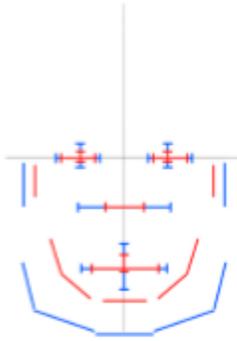


Fig. 13, Male human.

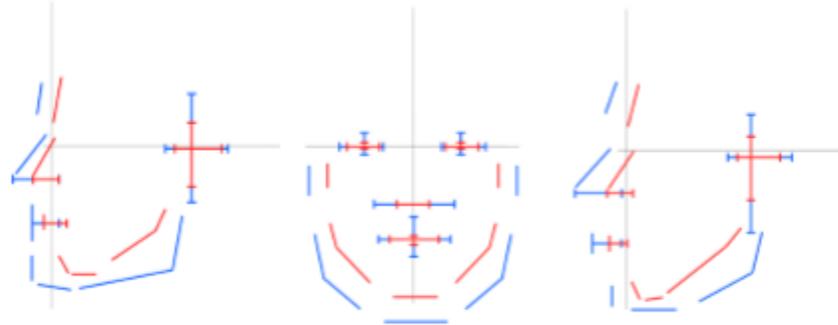


Fig. 14, Female Human.

The game with the biggest differences between the smallest and widest measurement. The player is able to create very different faces with this range of customization.

Understanding the importance of hair, especially with minority women. This woman initially refused to give herself any hair as the Fallout Avatar Creator had no hair to match hers or even get close. This is a fantastic example of just how much hair can affect a person creating their likeness:



Impact on experience design

As we learn more thru research, this will impact how the avatar creator is designed from a user point of view as well as framework point of view for easy customization and future additions:

- What is the best default?
- What is the best way to show and preview things like skin tones, and hair?
- Can there be a built-in feedback system for users to alert they want to see more in a certain category?
- What is the best way to design an interface that can easily expand and be modified?

Note: Sources will be included and annotated in the more complete research document, presentation