Color Bias in Photography, Smartphones and Models

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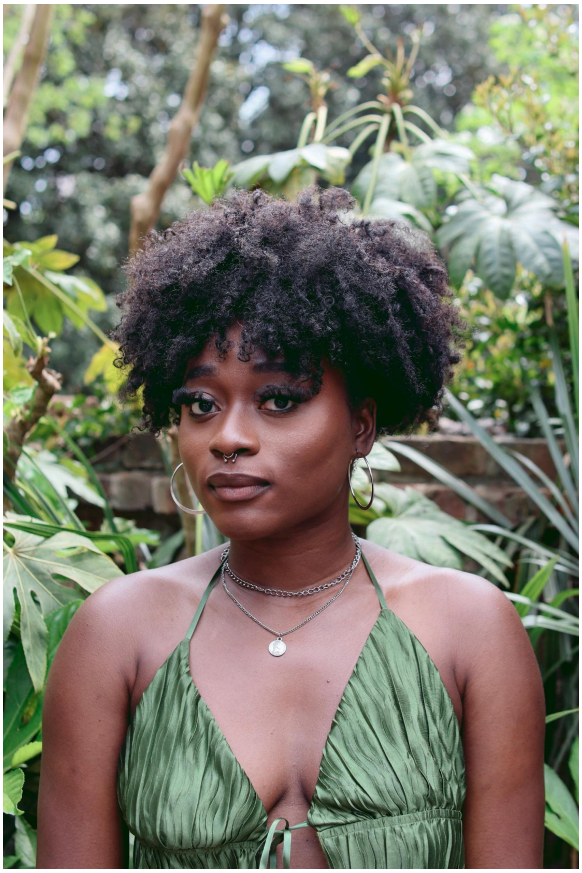
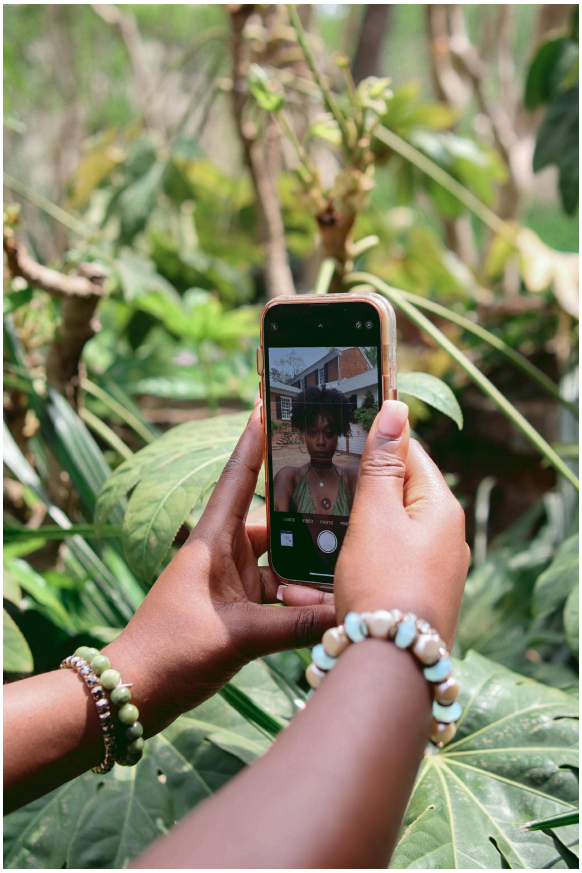
When Limi Okala turns her iPhone's selfie camera towards her face she doesn't see herself. Each photo she takes requires an edit.

"You cannot see the vibrancy," said Okala, a marketing major and model with The Agency at the University of Georgia. "I can't see my undertones in my pictures the second the lighting is not like absolutely perfect. It is a struggle because there's some times you'll take a great photo, but because it's dulling out your skin tone, you can't really use it."

When Okala talks about the skin tone bias in visual media, she's not talking about film stock from the 70's. She's talking about today's modern smartphones. While we've come very far from the days of waiting to get our photos back in the mail, we're still dealing with fundamental flaws in the way we represent all members of our population, and with a professional grade camera at everyones' fingertips the inequity has become ubiquitous.





"One thing about me is I'm always thinking: 'Ok, how can I adjust to this?'" said Okala. "I'm not necessarily like feeling bad about it, because it's like, it is what it is. That's kind of how your mindset has to be or else you'll just drown in self pity."

We often think of the camera as a neutral medium, but the smartphones that capture so much of our lives are founded on an imbalance. This is because most photographic technologies are programmed using predominantly white data sets.

“Smartphones just don't capture, like all the beauty of different skin tones or different hair types.” said Okala, “It’s just kind of like, for one type of person.”

That one person she’s talking about, her name is Shirley.

In the 1950’s, Kodak sent a kit with their printers which contained what was called a Shirley card, a processed color film negative to be used as a reference for calibrating color and shade. The cards were dubbed “Shirley” cards because the card consisted of a single portrait of a white woman in formal attire, the first of which was presumably named Shirley.

According to a New York Times article, the first complaints Kodak received regarding color bias—and the first to be heard—were from furniture manufacturers and chocolate companies who claimed that their film wasn’t capturing the right brown tones in varying color woods and chocolates. Multiple Shirleys appeared throughout the years and it wasn’t until the 1980’s that we saw the first multiracial Shirley card.

> ***“When the camera was first made, it wasn't made to capture dark skin.”***
>
> — Faith Ebikeme

“I moved here from Nigeria. So the media, they're portraying people that look like me all the time,” said Faith Ebikeme, a model with BOLD Modeling Agency at UGA. “So when I first came here, and I started seeing the way other black people were represented in the media here, it was a shock for me.”

Ebikeme said the first red flag was when she was watching the children’s show Winx Club, a Nickelodeon cartoon centered around a group of female fairies. The black fairy character, voiced by Keke Palmer, rubbed Ebikeme the wrong way. This friction resulted from a trope, but beyond the figurative portrayal of Black women in media, there exists a literal conflict in simply capturing them as they are.

“A lot of the time you’re trying to like minimize how much your iPhone is just not doing its job, when it comes to capturing what's really happening in real time,” said Okala.

“iPhones just cannot, like it just makes you look weird; it either, like, darkens you significantly, or even if there is good lighting sometimes in group pictures, you just look not like yourself, and it just feels like it's capturing everybody else right,” said Okala. “It is what it is, you kind of just have to like take it, because what can you do?”

The primary concern in group settings, like a multi-model photoshoot or even a wide angle selfie, is that the phone compensates for the lighter skinned individuals in the frame. This is an even larger concern when it comes to facial recognition software like in online exams and social media face filters.

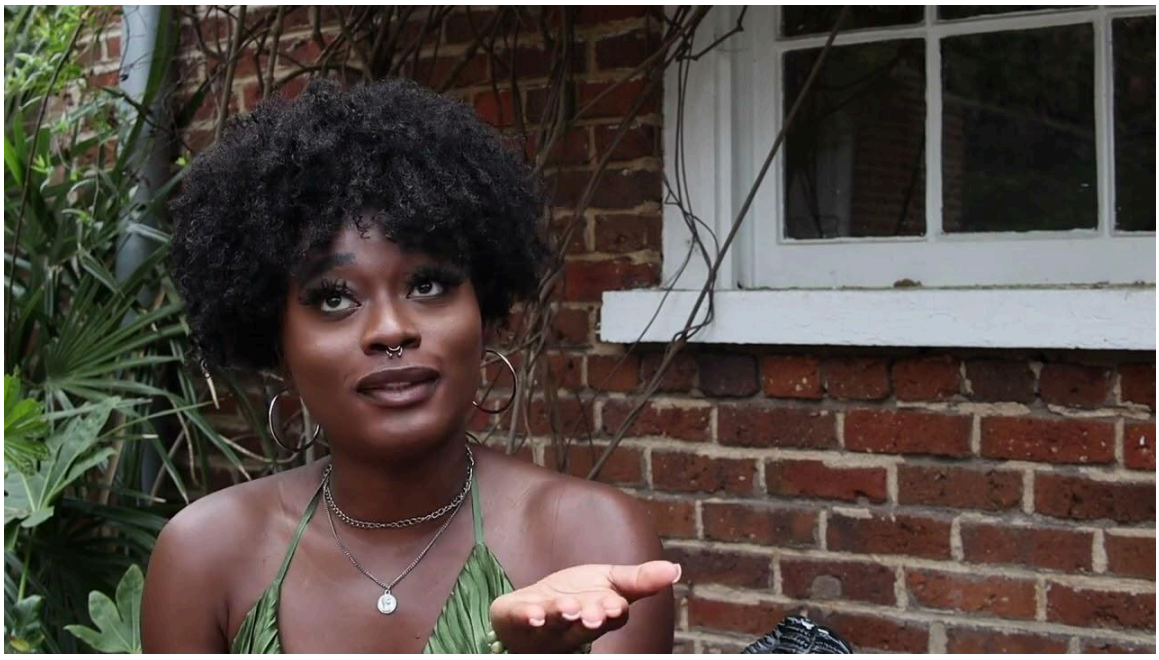
“Some of these features just don't work for people like us, you know. So we're not being represented, we're not the models for when these filters are being made, we're not the blueprint,” said Ebikeme. “So we're not being represented, it's not for us at the end of the day.”

While much work remains to be done, Google attempts to bridge the gap by making “a more equitable camera” in their smartphones. According to the Google store website, Google Real Tone, a new technology featured in the Pixel 7 cameras, uses “computational photography algorithms to better reflect the nuances of diverse skin tones.”

“The fact that Google took that big step is very admirable. I'm hoping it's going to have the same ripple effect that like Fenty Beauty had on the beauty industry,” said Okala. Fenty Beauty, a cosmetics company founded by the musical artist Rihanna, included 40 shades of foundation in its initial launch and effectively set the standard for diversity, equity, and inclusion in the field of cosmetics. “Representation matters so much in the beauty industry now, as a result of what Fenty did, so I'm hoping the same kind of effects happen with Google where it just kind of keeps going.”

While Google moves towards inclusivity, the novelty of such a necessary feature doesn’t sit right with everyone.

“It's the bare minimum,” said Ebikeme, “because the fact that they have to even say, they think it's like innovative and revolutionary, that they're making a new device that caters to people of color, you know, people of color, they've been on this earth for just as long as the other people they make these same devices for.”



Even with the advances Google has made, there is still an imbalance in equity when it comes to photography in a technical sense. Without proper hardware to capture darker-skinned models

photographers are having to pick up the slack in the edit. This brings up further problems when certain photographers don’t know how to edit photos featuring darker-skinned models.

“As a model, you have to look good on camera all the time, but if you keep having to do these little little things, just to look normal, you know, say you have to do like five different things to your skin to make it look good on camera, but this white model doesn't, she just has to show up,” said Ebikeme. “That can really put a toll on your mental health.”

“There's so many issues with that, and just kind of get used to it,” said Okala. “Even talking about it is a shock because I'm like, dang I just feel like I'm so used to it that I don't even realize that it's a problem sometimes, because like what am I gonna do, not take pictures?”