

**Cosmetic AR Filter: Field Test**

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## **Observation and Overview**

Content production has become another facet of modern-day multimedia journalism as communication industries constantly look for new short-form ways to quickly and accurately communicate news stories or updates on the latest products and trends.

With the rise of the future of storytelling, content creators for brands are in the phase of trying to persuade their employers of the necessity of fostering the consumer's journey. Businesses should dedicate considerable resources and time to content marketing to stay at the forefront of their competitors and remain relevant to their target audience. Furthermore, as content creation evolves, marketers constantly search for strategies to differentiate themselves from other brands while maintaining their content throughout the year.

Marketers and journalists must collaborate to better convey their stories as publishing methods shift from print to digital. In addition, I have learned throughout my emerging media course that one way for a business or news publication to stand out against its competitors is to incorporate AR technology into users' experiences.

In my current role, I work as an editor and social producer. I especially enjoy covering entertainment, beauty, and lifestyle beats, and in doing so, I have noticed the vast impact AR technology has had on how cosmetic brands market their products and how social producers' responsibilities are changing as they manage these brands' media accounts. Augmented Reality (AR) incorporates technological features into real-world surroundings, such as audio, visual, or other sensory elements. Everything about the social production industry is all about what can be created with all the information at your fingertips on your phone, whether it be filters stamped with branding to advertise events and products or video reels highlighting the top 5 news stories of the day.

AR cosmetics and beauty try-on filters have grown in popularity because they provide customers with a tailored experience, aiming to purchase products more personalized and convenient for buyers. Whether it's a shade-matching try-on or a skincare evaluation selfie experience, AI and AR offer a variety of tools to fulfill the demands of cosmetic businesses and their customer bases.

With their revolutionary virtual try-on tools, Sephora, L'Oréal, MAC Cosmetics, Maybelline, and Charlotte Tilbury pave the way in this space. After living in a virtual-first society for more than two years, customers increasingly regard technological innovations, such as augmented reality skincare products and try-ons, as an essential part of their shopping experience. However, it begs the question, are black-owned beauty brands represented as heavily in these emerging technologies to keep up with and meet customer demands?

As society becomes more technology savvy, we do not want the mission of these black-owned brands to be erased from the marketplace because of their lack of access to technology resources. Thus, the solutions lie in content producers and marketers prioritizing discovering readily available applications such as Spark AR and utilizing its features to make these businesses more competitive.

### **Research Topic**

Brands with limited shades of color and white content creators have predominantly dominated the marketplace and social media trends; even algorithms have been proven to favor their content often. While it is common to believe that because a brand is Black-owned, only Black people will buy it, this is not true. It's because Black brands are typically formulated to benefit darker skin tones; they can benefit anyone with those characteristics, not just Black consumers.

For my field test, I developed a digital content solution from a social producer's point of view so that beauty brands specializing in making products for women of color can experience the same luxuries of trying on beauty products from home. Thus, I began studying the inner workings of creating an augmented reality makeup filter and focused on highlighting one black-owned beauty brand, Ami Cole. The filter is about creating a purchasing and identifiable brand journey that functions well, regardless of the customer's path.

I began to ask myself, "What is a better way for minority brands and people to truly see themselves than practically looking in a digital mirror (aka your phone camera)?" My research project will explore creating my own AR and AI technology to launch personalized virtual try-on makeup filters catered to products for people of color. Minority brands entering the virtual makeup market will increase their visibility and allow consumers to better identify with the storytelling surrounding their niche communities and products.

## **Hypothesis**

My alternative hypothesis (what I believe is going to happen) is that through digital storytelling, AR makeup-up try-on filters designed by social media content producers in the cosmetic industry can assist beauty brands that cater to people with melanin-rich skin by authentically making space for savvy consumers to better identify with their niche communities and products.

## **Test With Experiment - Spark AR Filter Design**

### *About The Program*

For the scope and time allotted for this project, I focused on creating an AR filter using Spark AR for one company's verified cruelty-free cosmetic line designed with melanated rich skin in mind instead of various brands.

Spark AR enables companies to build and distribute augmented reality experiences to billions of viewers via Instagram and Facebook. The step-by-step instruction for importing effects was of great assistance. The Spark AR program also provides a template for creating beauty filters. So, I used the mask image (a mock template to help designers best place effects on the average person's face) provided as a basis for the placement and application of makeup products.

I decided to model products from the cosmetic line Ami Cole. They created cruelty-free products with people with melanated rich skin in mind who want a natural and effortless glow. Two of their most popular products are lip oils, similar to lip gloss's functionality, and the multi-cream stick typically used as a blush and eyeshadow. The first cosmetic filter features the lip oil "excellence" and cream multi-stick "hibiscus" by Ami Cole, and the second look features their lip oil "bliss" and cream multi-stick "flame."

### *Color Matching*

Using the doppler effect to color match the lip oils and cream multi sticks of the product swatches provided online, I synced the facial areas using the mesh mask (A face mesh is a three-dimensional model of a face. It works in tandem with Meta Spark Studio's face tracker to provide an area that reassembles someone's facial expressions) menu options (cheeks, face, lips, and eyes) provided by the mock makeup filter by Spark AR that I wanted to enhance with the appearance of light and glowy makeup.

### *Product Identification Graphic Design*

After thoughtfully curating the most digitally accurate shade similar to what the product would look like in reality and trying it on myself, I decided that the filter needed to communicate more information about the product and the brand so that it is recognized as an effort to

emphasize diversity not only in the beauty industry but the technology industry through visual storytelling mediums such as social media. So to resolve this issue, I used another design program called Canva to create still graphics that showcase the product's name and Ami Cole's mission to advance the cosmetic product options available to people of various ethnicities. I then position the graphic to appear and track the movement of the individual in the frame using the filter.

With the product information graphic and mask feature to portray the desired makeup look, the AR cosmetic filter designed by social media content producers was ready to be tested by a focus group to determine whether, through digital storytelling, the innovative technology can successfully assist Black-owned beauty brands in authentically making space for savvy consumers to better identify with their niche communities and products, as previously stated in my hypothesis.

## **Data Analyzation**

### *Testing Method*

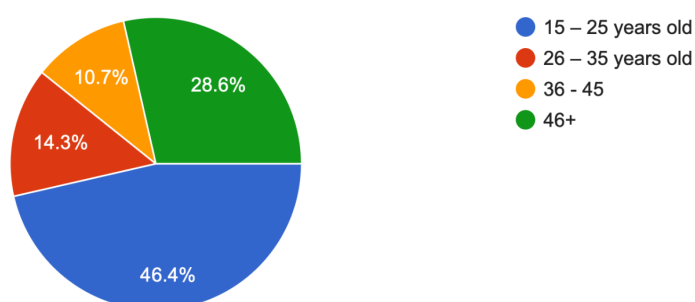
According to research by Qualtrics XM, statistical tests (statistical hypothesis tests are a type of statistical inference used to determine if the data at hand correctly supports a given hypothesis), such as surveys, are the best approach to assessing the effectiveness of new technologies. Using analytical instruments and methods such as statistical tests can assist in determining whether the identified patterns data are meaningful or simply coincidental, what my results mean in relation to any additional data I have, if one aspect impacting the field test is of greater significance than others, and how to produce insights that result in meaningful changes.

My target audience is a natural extension of identifying the objective of my survey, as my intention behind my field test is to use AR technology to combine evolving creative roles in the digital journalism industry and bring awareness to minority-owned brands in the beauty industry. Thus, I created a Google form survey emphasizing the importance of the user's experience and opinion and the ethnicity of the target audience. I shared the survey via Twitter, Instagram, and LinkedIn social platforms to reach minority audiences receptive to integrating AR technology into the beauty industry.

### Target Audience

How old are you?

28 responses

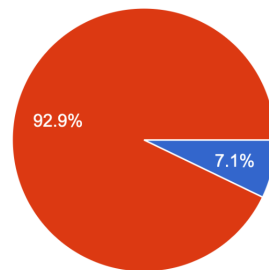


The survey received over 25 responses. The first portion of the questionnaire included demographic questions. The majority of the participants (46 percent) were between the ages of 15 and 25. Twenty-seven percent of participants were 45 and older, making this age group the second largest to test the filter. These two groups were the most interested in how advanced technology can benefit the advancement of diversity and inclusion in the cosmetic industry.



Are you of Hispanic, Latino, or of Spanish origin?

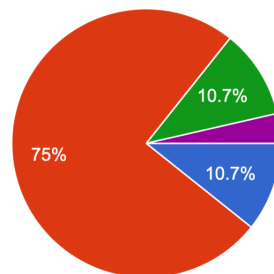
28 responses



- Yes, I am of Hispanic, Latino, or of Spanish origin.
- No, I am not of Hispanic, Latino, or of Spanish origin.

How would you describe yourself?

28 responses



- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander

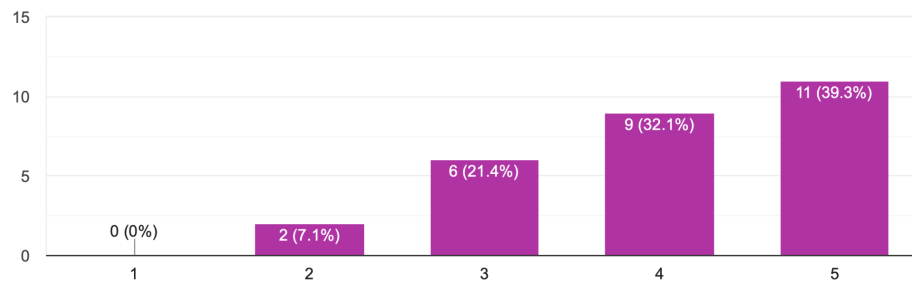
Ninety-three percent of people who took the survey were not of Hispanic, Latino, or Spanish origin, whereas 7 percent were. In addition to ethnicity responses, 75 percent were Black or African American, 11 percent were White or Asian, and four percent were Native Hawaiian or other Pacific Islander. With Black and African American, Asian, and individuals of Hispanic, Latino, and Spanish origin, the experiment successfully reached the intended target audience and purpose of creatively recognizing minority consumers.

### *User Experience*

The second portion of the survey included user experience questions. A majority of the survey participants found the filter user-friendly. They also stated that they were unaware that such technology existed and appreciated the access to match makeup products.

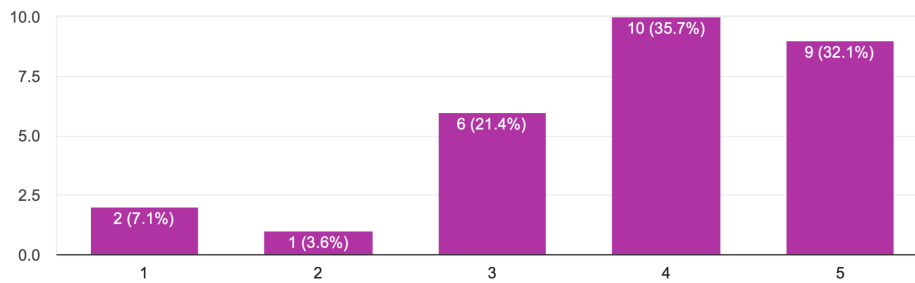
On a scale of 1-5, are the filters user-friendly?

28 responses



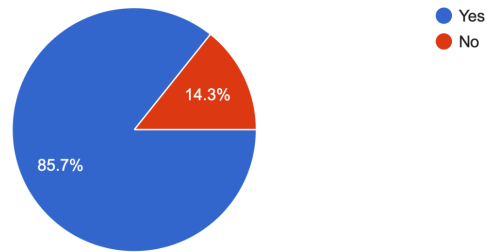
On a scale of 1-5, how likely are you to share this filter on social media with others?

28 responses

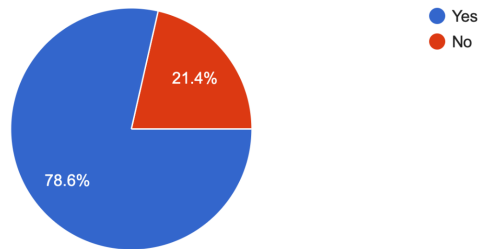


After being asked their thoughts after opening the filters and discovering that Ami Cole has various makeup swatches that offer a variety of shades, an anonymous participant expressed, “I like that it allows me to discover a different shade that I may not use on my skin usually. A variety of shade offers inclusivity and diversity among a brand.” However, there is always room for improvement, and at least 27 percent found the filters were not as pigmented as they would have liked or expressed that the filter disappeared too quickly.

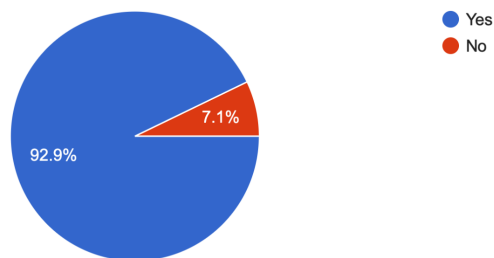
Would these filters help you select one of the products displayed by Ami Cole?  
28 responses



Did the filters help you authentically grasp the story behind the brand and its goal to create products for melanin-rich consumers?  
28 responses



Could these filters encourage a sense of community by being shared with others?  
28 responses



Over 79 percent, being the majority, of the survey participants found that the filters would help them select one of the products displayed by Ami Cole, authentically grasp the story behind the brand and its goal to create products for melanin-rich consumers, encourage a sense of

community by being shared with others through social media, and ultimately the beauty industry would recognize their need to be an equally provided convenience as minority consumers.

### *Social Media Insights*

Spark AR Hub generates analytics to help monitor and analyze the performance of uploaded effects on Facebook and Instagram. The cosmetic AR filters received 202 impressions, 270 opens, and eight shares, the dashboard of the Hub reports.

The filter was successful and proved my alternative hypothesis correct. Through digital storytelling, AR makeup-up try-on filters designed by social media content producers in the cosmetic industry can assist beauty brands that cater to people with melanin-rich skin by authentically making space for savvy consumers to better identify with their niche communities and products.

Using the statistical method for developing a survey proved to be a strong and adaptable way to extract additional value from the information gathered from my field test; the findings investigated the opinions and feelings of a large population using natural language processing.

## **Conclusions**

### *Alternative AR Programs & Future of AR Technology*

In the future, if Spark AR or a similar program developed used task unification and created a crowdsourcing function, my field test could have benefited from this accuracy, and I would have been able to produce more shades from makeup products that are more pigmented and closer to what it would look like applied in reality. I often found that when increasing the occupancy of the mask options, the filter eventually began to look startling, but if decreased to low, the applied product was barely noticeable.

Thus, the program crowdsourcing information would also assist the social team leads of cosmetic brands in gathering and analyzing trends to quickly update filters as new products emerge and ingredient formulas are changed, and more companies move towards cruelty-free products. Then social marketers and ux designers have the ability to expedite the research and content creation processes.

It would have also made the user experience more convenient if there was a feature within Spark AR or similar programs that could be added to the filter's flowchart to link back to the makeup companies website, leveraging purchasing power within the app (Instagram) versus having to open another window and search for the products you have discovered yourself.

While a lip gloss or blush try-on function isn't necessarily revolutionary, many social media platforms present an identical filter nowadays. It could pave the way for more elaborate AR beauty features in the future. Although some individuals might overlook or "write off" the conceptual power of virtual cosmetics, the market is exploding with revenue and creative opportunities.

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