Schedule

- Intros & Bias in Research - Prof. Kim   (10 min)
- Bias in VFX - Prof. Syed   (10 min)
- How to go forward? – Prof. Kim   (10 min)
- Open Discussion   (60 min)

So, what are we going to do about all these issues?

These issues are systemic, which means that a bunch of well-meaning individuals working in isolation is not going to be enough to enact long-lasting change.

We're going to have to organize and act collectively if we want to bend away from the trajectory we're currently on.

Openly discuss *technical challenges* of depicting all of humanity

We need to talk openly about the **technical** challenges that arise when trying to depict the full spectrum of humanity. Lots of conversations are happening already, but a clear-eyed technical discussion is a very high hurdle that we have not yet cleared.

This is especially uncomfortable and disturbing to talk about because we're used to thinking of math and science as neutral and objective, but as we saw, it can become insidiously infected by systemic racism as well.

Discussion needs to happen openly on a technical level.

One Suggestion

I'm going to make some suggestions, but before I do, these are only suggestions. If you have an idea of what you want to do, then that is great. That is probably the best action that you can take, not anything that I'm about the suggest.

You should try your idea, and if you want some support or feedback on it, we can try to provide that. I'm going to post a Google Form at the end of my schpiel here, and that is where you can ask for help.

I'm now going to describe something that we tried this last year, which failed spectacularly. Let's not repeat the mistakes from last year.

We were in the same boat last year, we saw all these racial issues in computer graphics, and the thought that yet another SIGGRAPH would pass without discussing them was unbearable.

So, we decided to submit a SIGGRAPH Talk.

This is not the Technical Papers program, that scary, super-high bar program that only high-powered researchers and MIT professors publish at

This was the Talks program, the low-bar, hey who wants to chat about this program.

Countering Racial Bias in Computer Graphics Research

Theodore Kim
Holly Rushmeier
Julie Dorsey
Yale University

Derek
Nowrouzezahrai
McGill University

Raqi Syed
Victoria University of
Wellington

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Dartmouth College

A.M. Darke
University of
California, Santa
Cruz

ABSTRACT

Current computer graphics research practices contain racial biases that have resulted in investigations into "skin" and "hair" that focus on the hegemonic visual features of Europeans and East Asians. To broaden our research horizons to encompass all of humanity, we propose a variety of improvements to quantitative measures and qualitative practices, and pose novel, open research problems.

in computer graphics research have resulted, independent of any individual intent, in measurably biased outcomes. Our supplement provides further details and a bibliography.

Translucency and the corresponding physical mechanism of subsurface scattering has become synonymous with "human skin" in rendering. However, translucency is only the dominant visual feature of young, white Europeans and fair-skinned East Asians. We found 19 graphics publications, including the seminal works on the topic, that solely present renderings of white humans as evidence that subsurface scattering algorithms can faithfully depict "skin", "human skin" and "human faces." In at least 4 instances, this bias is then reflected in commercial software. Several other publi-

It was clear we would encounter resistance, but we knew the process was single-blind, so the people reviewing our submission would be anonymous, but they could see our names.

So we assembled an bulletproof author list, and if you work in this field and you look at this list, you should recognize at least one of these names. So, we're not a bunch of randos just mouthing off, we actually know what we're talking about.

We assembled a two-pager on these issues, and backed it up with a supplement that contained over 75 citations. This is far more evidence than is ever presented in these two-pagers. If you've ever submitted a SIGGRAPH Talk, you know that there's usually just two or three citations, and often zero. Between the 2-pager and the supplement, we had 89 in total.

But, we knew that systemic racism is a thing, so we'd have to come at this with an overwhelming mountain of evidence.

General Submissions

gensub_308: **Countering Racial Bias in Computer Graphics Research**

Stage 1: Submission   **Reject**   02/23/21 ⓘ   👁 details   ☑ update   👁 reviews   🖨

Checklist
  Discounted Registration Code:

This submission was rejected.

SIGGRAPH Jury Process

- Seven Reviews
- 2-Day SIGGRAPH Jury Meeting
- Jury only *recommends* accepts
- Jury *rarely* hard rejects

Each submission receives 7 reviews from the SIGGRAPH Unified Jury, which is a jury of volunteers from around the world from all parts of the community.

The Jury then meets in-person over two days, over Zoom this year, naturally, and we discuss face to face what to do with all the submissions. Talks, course, panels, production sessions, what does and doesn't show up at SIGGRAPH gets decided here.

The Jury only has recommendation power. What finally goes into SIGGRAPH is decided by the Chair. You can strongly recommend that something appear at SIGGRAPH, but there's lots of scheduling constraints, so its never guaranteed that something will get in.

However, the Jury has the power to hard reject something. Essentially tell the chair "under no circumstances should this material be allowed to appear at SIGGRAPH." The chair must honor that recommendation.

I've served on the Jury four times, and this recommendation is rarely used. Maybe once or twice over hundreds of submissions, if there's just something really wrong with it, like it's a commercial vendor trying to hock something, but get around the

exhibition floor fee, or people just plain old submitted to the wrong conference.

General Submissions

gensub_308: **Countering Racial Bias in Computer Graphics Research**

Stage 1: Submission   **Reject**   02/23/21 ⓘ   👁 details   ✎ update   👁 reviews   🖨

Checklist
  Discounted Registration Code:

We got a hard reject. Again, the Jury's decision was that under no circumstances should this material appear at SIGGRAPH.

Summary of Reviews of gensub_308s1

Reviewer	con ⓘ	nov ⓘ	int ⓘ	qcc ⓘ	rec ⓘ
Reviewer 1	Excellent (4)	Good (3)	Excellent (4)	Average (2)	I would argue against acceptance (2)
Reviewer 2	Average (2)	Average (2)	Average (2)	Average (2)	I have no objections if somebody else argues in favor (3)
Reviewer 3	Excellent (4)	Excellent (4)	Excellent (4)	Excellent (4)	Accept (5)
Reviewer 4	Excellent (4)	Good (3)	Excellent (4)	Excellent (4)	Accept (5)
Reviewer 5	Good (3)	Good (3)	Good (3)	Good (3)	I would argue in favor of acceptance (4)
Reviewer 6	Good (3)	Excellent (4)	Excellent (4)	Excellent (4)	Accept (5)
Reviewer 7	Good (3)	Excellent (4)	Excellent (4)	Good (3)	I would argue in favor of acceptance (4)
Averages:	3.3	3.3	3.6	3.1	4.0

It gets worse – we had seven reviews, five said our Talk should be accepted

Summary of Reviews of gensub_308s1

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One is in neutral

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Summary of Reviews of gensub_308s1

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Then we have one that gave a scorched earth negative review

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> "the numbers used to support the argument are meaningless."

So again, the 89 citations we found in support of our argument are meaningless.

"Frankly, this is preposterous. It simply does not seem serious."

"This joke, coupled with the problems of the proposed solution, makes me think that the whole thing is a send-up."

> "I'm not sure how much of this paper is to be taken at face value, and how much is delberatively provocative (not unheard of in social justice work)."

So this last comment contains an explicit dog whistle.

If you're not up speed on your racists memes, SJW, "Social Justice Warrior" is thrown around as an insult in those circles.

You might ask: "There are people out there who are against social justice????"

Yeah, just Google it. It's not pretty.

Summary of Reviews of gensub_308s1

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Averages:	3.3	3.3	3.6	3.1	4.0

But, it was five versus one, surely five positives versus one negative, the positives will win, right? Nope.

Those five people did not come prepared to counter these scorched earth tactics.

Summary of Reviews of gensub_308s1

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This person won. They got what they wanted.

SIGGRAPH 2021 is happening right now, and there is no discussion of racial bias anywhere in the technical program.

Two Lessons

Two lessons here.

Two Lessons

- This is now a numbers game

First. This is now a numbers game. Our mistake is that we submitted just one Talk. Now matter who your author list is, or how thorough your submission is, you get one bigot in your pool of seven reviewers, and they will tank the submission.

This is where we all need your help. This is why we put together this Birds of Feather.

Goal for SIGGRAPH 2022:

Have a discussion of technical bias
within the technical program.

Our goal for next year is as follows:

"Goal: Have a discussion of bias *within the technical program* of SIGGRAPH 2022."

We don't know how many more bigots are on the jury, so if this is going to happen, we're going to have to throw *lots of submissions* at it.

If we all get together and submit 10 Talks, then at least one will get through.

That one that gets through, that will set the precedent. Bias embedded in technical formulations is a valid topic for the mainstream SIGGRAPH technical program.

Goal for SIGGRAPH 2022:

Have a discussion of technical bias
within the technical program.

Racial Bias
Gender Bias
Ageism
Ableism

It doesn't have to be racial bias.

I've talked about racial bias, but there's gender bias, ageism, ableism, you name it. All of this isn't discussed openly on a technical level.

And we've all seen how the lack of open discussion just perpetuates existing systemic biases.

Let's submit tons of proposals, in the hope that just one gets through.

Two Lessons

- This is now a numbers game

I'm going to post a web signup form in a second, but before I do, I want to discuss the second lesson from this debacle.

This will not be an isolated incident. It will happen again. Remember this was the super-low-stakes Talks program. Even then, we see these scorched earth tactics.

This will get 10X worse when people start trying to submit original research to the high-stakes Technical Papers program. We need to be prepared for this in the future.

Two Lessons

- This is now a numbers game
- Volunteer for the SIGGRAPH Jury

The second lesson here is that we need to start volunteering for the SIGGRAPH General Jury.

The SIGGRAPH Jury is an all-volunteer jury, and they have trouble filling it all the time. People from all levels are on the jury, from fresh PhDs to seasoned veterans. The people in this room are highly qualified to be on the jury. So please volunteer. Let's be in the room when this happens, and have our arguments lined up to push back.

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Averages:	**3.3**	**3.3**	**3.6**	**3.1**	**4.0**

The bigots won this year. Let's make sure they don't win next year.

Okay, here's the form I promised. You can volunteer to write a Talk, a Panel, a Course, whatever you please, for SIGGRAPH next year.

If you're not in a safe position like a university where you can attach your name to something hot-button like this, you can volunteer to be a reader or editor for other people's submissions, and help us out behind the scenes.

If you have an idea that I haven't mentioned, but want some support, there's a place for that too.

https://docs.google.com/forms/d/e/1FAIpQLSdvOFFzaPiDfQoBcK0YfT1WaaUhn4MH
Ojb49NI6pzOq8GtW8w/viewform

One Suggestion

Okay. That was my part. Again, this is how I think we should counter bias in our community. This is not the only way.

What are your ideas? What would you like to talk about? I would like to open up the floor.

"Raise Hand" to raise new topic

The way I'd like to structure this is using the Raise Hand function.

If you raise your hand, it will show up on my side in the order they were raised, and then I can call on you in the order you raised your hand.

"Raise Hand" to raise new topic

Write "Remark" in chat to comment on current topic

If you want to comment or respond to the topic under discussion, please write "Remark" in the chat window. I can then call on you from there.

Then you'll jump the line, and you can respond to the current topic.

Once a topic wraps up, we go back to the raised hand queue.

"Raise Hand" to raise new topic

Write "Remark" in chat to comment on current topic

We're not recording

One last thing, we're not recording. Feel free to speak openly.