

DOPE LABS

Transcript of Lab 019 ____

Zakiya: It's that time of year again where you get all the count down lists.

Titi: Right! Everybody has those countdowns like on television, that's like, "oh, top whatever. Of 2019, top whatever the decade".

Zakiya: Yeah.

Titi: Spotify also did their end of the year wrap.

Zakiya: Who was your top artist?

Titi: Ari Lennox.

Zakiya: Mmm! That fits for you.

Titi: I love her so much. Who was yours?

Zakiya: You are a shea butter, baby.

Titi: I am. I am! I feel like she's my friend in my head.

Zakiya: My top songs...

Titi: I want to know artists.

Zakiya: How do I see that?

Titi: It was probably Hall and Oates. Let's just say that and let's just continue.

Zakiya: This is shady! My top artist with Summer Walker.

Titi: That is fitting.

Zakiya: Can you guess who my number two artist is?

Titi: Is it The Dream?

Zakiya: It is The Dream!!

Titi: I knew it! I know my friend!

Zakiya: OK. My number three artist is one of my favorite rappers. A lot of people don't know him, but I like him a lot. He's kind of becoming a he from The Lou, St Louis. Is it St. Louis is that what it's called.. *french accent* St. Louis?

Titi: Oh No. Not everything is French. As soon as Zakiya doesn't know what a word is, she turns it into a French word.

Zakiya: I know it's St. Louis.

Titi: I'm Titi

Zakiya: And Zakiya.

Titi: And from Spotify Studios, this is Dope Labs.

Titi: So everybody's doing these countdowns and everything like that.

Zakiya: Yes.

Titi: Should list mine?

Zakiya: Yes.

Titi: My number two artist was Da Baby.

Zakiya: Da Baby! Of Course!

Titi: I don't think anybody will be able to guess my number three artist. It was the Tesky Brothers. Have you heard of them?

Zakiya: No.

Titi: It's a group. They are very soulful. But number four was DJ Mustard. I loved perfect 10, perfect 10 was FIRE.

Zakiya: Yes.

Titi: I dont care what anybody says don't at me, don't at me, don't at me. I don't care what you guys say.

Zakiya: Mustard on the beat!

Titi: That's right. And then my number five was Tee Grizzly.

Zakiya: Yes! You know, I love tee grizzly.

Titi: I Love tee grizzly.

Zakiya: Whenever I'm feeling down, "No Effort".

Titi: Come on now.

Zakiya: So he has some top songs and we also have some top moments.

Titi: How is your 2019, though?

Zakiya: My 2019 was phenomenal.

Titi: 2019 was very exciting for us. We launched the podcast.

Zakiya: Every other week in your ear. I can't believe it. And ya'll keep showing up. And I love you for that.

Titi: Right.

Zakiya: I just feel like my Internet life has grown so much. I have a whole family from people that listen to the podcast. I just go in there. I look at stories when I wake up in the morning I say "hahaha look at what @greyprice is doing".

Titi: Right. I'm like' "OK, @restorationjunkie is doing this new house".

Zakiya: Do you see all those plans at her house?

Titi: She has a lot of plans. I can't even keep my one peace lily alive. And I am very jealous.

Zakiya: That's why I haven't brought that. I had started to plant it for you. But I'm scared you gonna kill it.

Titi: It's gonna die.

Zakiya: And so I just keep it at my house.

Titi: You should.

Zakiya: And you can look at it when you come over.

Titi: That is very wise, I'll enjoy it from afar. I think it'd be really fun if we take some of our favorite 2019 moments and make it into like a 2019.

Zakiya: Mixtape.

Titi: Oh, I love that!

Zakiya: Girl I'm ready! Let's dive in.

Titi: So we're gonna run through all of our 2019 top moments.

Zakiya: Yeah.

Titi: For each of these topics what we're gonna be doing is just a little mini dissection of each.

Zakiya: We're gonna give you the category, our favorite moment from 2019 in just a little bit of the science behind it.

Titi: Tell them what the categories are, Z.

Zakiya: All right. So drumroll, please.

Titi: Oh, that's clapping.

Zakiya: We need a real drum roll.

Titi: *drumroll noise*.

Zakiya: You are always good at that! Our 2019 year in review. Our four categories we're going to address are music, sports, tech and politics. All right. So let's jump off with music.

Titi: Some of the artists that I feel like really took 2019 by the horns and just soared all the way to the top. Billy Eillish.

Zakiya: Yes.

Titi: Da Baby.

Zakiya: First of all, he's a North Carolina native. And I think Da Baby will replace Petey Pablo.

Titi: Little Nas X definitely took advantage of his superstardom and took that all the way to the top.

Zakiya: You know, I think Summer Walker.

Titi: Oh, my gosh. Yes. Summer Walker and Arnie Lennox,.

Zakiya: They showed up and showed out.

Titi: Absolutely.

Well, you know who we haven't mentioned.

Titi: Who?

Zakiya: And I think it's time for everybody to gather round the campfire because it's time to salute our new queen. Y'all probably thought i was going to say Lizzo. But I'm gonna say...

Both: Megan Thee Stallion.

Zakiya: You show me, anybody else who can say, "yes, I'm a woman, but I'm a male horse." Yes, I'm a woman. I'm a male horse. And I run the gamut. She can. I was like, is this Pimp C? Is Pimp C back?

Titi: Honestly, Megan Thee Stallion is probably one of the better rappers out right now. And she has really been taken over all of the charts and has been taken over the zeitgeist because of Hot Girl Summer.

Zakiya: Yes.

Titi: And Hot Girls Summer, everybody was talking about it. I don't care who you were, your mama, your grandmama, your granddaddy. Everybody was talking about Hot Girl Summer.

Zakiya: My mom better not be saying Hot Girl Summer, but yes, everyone was talking about Hot Girl Summer, and everybody was also talking about her extraordinary ability to twerk.

Titi: Megan Thee Stallion has vibranium knees.

Zakiya: Yes. How does Megan the stallion?

Titi: She's like 24. I don't think I could have done it at 24.

Zakiya: I don't think so.

Titi: She gets low and she stays down there. And I'm like...

Zakiya: You ok sis?

Titi: Right? Somebody would have to help me up.

Zakiya: It's amazing to me and I thought, let's do a little bit of science behind that because people are not really appreciating what Megan Thee Stallion is doing. So let's break down. The art of getting low.

Titi: And I think in order to do that, we really have to kind of just turn the complex twerks that Megan, thee stallion, does into a basic movement.

Zakiya: Yes. The square root of the square root of a twerk is a squat.

Titi: Absolutely. So for a squat, the major muscles that you are using are your quads, your calves and your glutes. But there are also other ligaments and tendons that are super important, like your IT band.

Zakiya: This is your Illiotibial band. OK, this ligament is right along the thigh bone.

Titi: So it extends from your knee all the way up to your hip. It is the thickest and longest tendon in your entire body.

Zakiya: Basically, your I.T. band and the muscles that are associated with it help you extend, abduct and basically rotate your hip. It also contributes to knee stabilization. And that brings us back to what you said, Titi, that, Megan Thee Stallion has knees of vibranium.

Titi: Yes. And so I think the vibrating pieces are I.T. band for sure. But there are also some other parts of your knees that are very important, right?

Zakiya: Yes. Your knee has tons of ligaments to keep it stabilized. So first you have your ACL and that's your anterior cruciate ligament. And so I think everybody's heard of that athletes tear, the ACL all the time.

Titi: Every other day.

Zakiya: It is really a sad story. The MCL, that's your medial collateral ligament and that stabilizes the inner part of your knee and the outer part of your knee is stabilized by the lateral collateral ligament or the LCL.

Titi: OK. So ACL in the front, MCL in the middle and LCL on the side. And all of those things..

Zakiya: Those powers combined...

Titi: Prevent you from flipping your leg backwards like a cricket.

Zakiya: That's right. Keeping everything in line. Now some of y'all that play sports. You know, you've seen a torn ACL, MCL...

Titi: Whatever L.

Zakiya: Mm hmm. Or just somebody taking an L. And I haven't seen her take one. OK.

Titi: That's right. So with all those things in mind, it seems like Megan Thee stallion, those ligaments and tendons are just superior to the rest of us. Really, there's no way you can become like Megan Thee stallion if you aren't already. Now, I've seen some of you on these Internets and some of you are Megan, the stallion adjacent because of your ability to get low and stay low. I'm not there.

Zakiya: Yeah, we'll just continue reporting, OK. We're ready to move on to our next category.

Zakiya: Next up is sports. Now, first, we got a shout out. D.C. Sports.

Titi: Yes, that's the home team. So me and Zakiya live right outside of D.C. in Maryland. So all those D.C. teams are the home team except for the football team, because they need to change their name. The Nationals, the capitals and the Mystics, they all brought the ship home this year. And so we are very proud.

Zakiya: Another proud moment in sports was the women's soccer team.

Titi: Oh, my goodness. That was so fun to watch.

Zakiya: Yes.

Titi: Megan Rapinoe is a hero.

Zakiya: Yes, I don't even have anything to add. Yes!

Titi: And Sports Illustrated made her their Athlete of the Year.

Zakiya: I'm behind that. I can see it.

Titi: 100%.

Zakiya: Team USA did their thing and they really had her. She was a great leader on and off the field this year. But the dope labs athlete of the year, my inner Dominique Dawes is very, very proud.

Titi: Simone Biles.

Zakiya: That's right. Simone Biles showed y'all that you ain't never done a flip like that before.

Titi: You thought she was flipping out, but you wasn't. You was just standing still.

Zakiya: You don't know what power is. And I definitely don't understand gravity or physics when it comes to what she is doing. I saw her do a flip in some jeans. OK. Sometimes I feel like my jeans don't even cooperate when I sit down into my chair.

Titi: Let me tell you I was in too long in a pair of jeans and I thought I was going to die. I couldn't do a flip.

Zakiya: I couldn't believe it.

Titi: Simone Biles has not only just obliterated the playing field like no one is coming close to her. She also is doing these new tricks that are being named after her. There's the Biles and then there's the Biles II.

Zakiya: One wasn't even enough. I am blown away. I'm like, what's next?

Titi: Right, So for this section, we're going to be dissecting the Biles II, which is a triple double flip. She's doing two flips and three twists. That's how you get the triple double.

Zakiya: So here is the Biles II. She begins to jump up, defy gravity, and she begins her first twist as she's doing that twist to rotate around, she's completing her first flip. Before that flip is done she does a complete rotation again, another 360 degree twist. Then she completes her second flip and she's twisting for the third twist. Second flip. And she lands smooth as butter. Perfect 10.

Titi: She lands. So it just seems so soft, too. I don't know how she does it.

Her ankles. what are her ankles made of?

The same stuff that Megan Thee Stallions knees are made out of. So the Biles II, can be broken down into three basic movements, a jump, a flip, and a twist. So first you have a jump. So we're all held to the ground by gravity. The gravitational force and that's called G when somebody is in space, that's why they say zero G, because there's no gravity. So in order to just get off the ground a jump, you have to exert enough force to cancel out the force that is holding you down to the earth. Then as soon as you jump, you're exerting more force up than you are down. So you're able to get up off the ground.

Zakiya: OK.

Titi: So to jump high. You really have to propel yourself up.

Zakiya: So if you want to jump up and stay up.

Titi: Which is what Simone is doing, she's practically levitating up there. So you've really got to be very, very strong. And then you have a flip.

Zakiya: And the flip is your heels coming up above your head. Yes. I'll move things like a somersault. That's a flip.

Titi: Exactly. But the technique that she uses is what's really special. When she's doing this flip she tucks her arm in her leg while she's in the air. And this actually makes her speed up while she's doing the flip.

Zakiya: What?

Titi: Right. Then you have a twist and the twist part. She also has another special technique that she does where she puts one arm up and one arm down and it's an angular momentum twist. So by redistributing the mass, it also creates like a kind of like a counter balance that also makes her speed up. So she's able to do the three rotations and two flips.

Zakiya: That is crazy. So Simone Biles is a physicist. That's what you're telling me?

Titi: Yes. Give that girl a PhD doctor Simone Biles. So far, we've discussed music in sports. But coming up after the break, we're going to jump into technology and politics.

Titi: And we're back. And next up, in our mix tape is tech.

Zakiya: There are a lot of great things that happen. The iPhone Eleven came out.

Titi: Yes.

Zakiya: I didn't know I needed three lenses, but I did.

Titi: We all did. I have three lenses now.

Zakiya: I think the technology that I've seen advancing and just appearing everywhere is facial recognition software.

Titi: Absolutely it is everywhere. None of us. Let me repeat, none of us have not used facial recognition technology. A lot of y'all are out there thinking that you haven't, but you have.

Zakiya: All these filters.

Titi: Honestly, every single filter.

Zakiya: I think that's where I started.

Titi: Snapchat.

Zakiya: You know, I used to say Snapchat is creepy, Snapchat is crazy. And before I knew it, I had dog ears and I happened so fast.

Titi: My favorite was the flower crown.

Zakiya: I was enjoying it.

Titi: It was great.

Zakiya: And then I was like, how does it know where to put these freckles? How does it know where to put this nose because it recognizes your face, girl.

Titi: Exactly. So the way that facial recognition technology works is that, one, it's technology that's able to recognize a human face and then measure its features. And every face has distinguishable landmarks and different peaks and valleys and things like that.

Zakiya: Your face is a map,.

Titi: Right? Like Zakiya has big eyes And I have a big forehead.

Zakiya: Wait a minute.

Titi: Do you not have big eyes?

Zakiya: I can see well.

Titi: The white parts don't see. But... And each human face has about 80 nodal points, which are these landmarks. And so what the software does is that it measures everything. So it's able to measure the width of your forehead, the width of your nose, the length of your jaw, the width of your smile, your mouth, the distance between your eyes. And then what these social media apps do is they take those measurements and then they're like, OK, well, then this is where I'll put the dog ears. This is where I'll put the flower crown. This is where I'll put the whatever.

Zakiya: Yes. And we didn't even stop there. We said, thank you, Snapchat. I'll have another. And then we start doing these things where we were saying, age me 10 years.

Titi: Exactly.

Zakiya: I want to see what I'm going to look like when I'm wrinkly.

Titi: And a lot of people did it. It's a lot of fun. But the difference I think the difference is, is like what folks are doing with that information later on and the technology is advancing. So facial recognition used to only be 2D. Now we have 3D facial recognition.

Zakiya: What does it mean.

Titi: That iPhone that you have? Well, you know, unlocks with your face. But when you were trying to set that up, it said.

Zakiya: Turn to the side.

Titi: it said look to the camera, look into the camera and turn your head all around. So...

Zakiya: I did it.

Titi: That 3D facial recognition technology knows every nook and cranny of that face.

Zakiya: And that makes so much sense because now now they have all the markers on my face. Right. So that's why when I have my sunglasses on, it still knows who I am because it has all these other markers from all around.

Titi: Right. Or if your phone is on the table and you're looking down at it, it still knows that it's you.

Zakiya: Yeah, but you know what? When I'm sleepy and I swipe up in that phone unlocks, I say, "thank you, Steve jobs."

Titi: But this technology is really cool and really useful for a lot of other things. So people are able to use this like for crimes and things like that. Like if you have a mugshot, they're able to scan that mugshot into facial recognition technology. And let's say they're looking for that criminal or the alleged criminal in a sea of people. They're able to locate that person based on that. But based on that mug shot. The government already has your face. If you have a government issued I.D., like a passport or a driver's license or any type of government issued documentation that has your photo, they have your face. And so they use they have all that information stored.

Zakiya: And I think, you know, I felt like I'm just going to take it back. And, you know, some of y'all might not remember this, but I remember Y2K and people were scared. OK. We were like, oh, what are they going to do when it resets to 2000?

Zakiya: Everybody's been withdrawing all their money from their bank account.

Titi: Yes. We have so much bottled water.

Zakiya: And when you think about that and how skeptical we were and now I'm like, when I can't purchase with Apple Pay or paypal or something where I have my information stored and it just needs to scan my face, I cancel it.

Titi: Yeah. I'm like, you think it ain't worth it?

Zakiya: You want me... First of all, I'm shopping in the night. You want me..

Titi: Shopping, shopping by the light of the moon.

Zakiya: You want me to throw those covers back,.

Titi: Stand up with my non Megan Thee Stallion knees and non Simone Biles ankles.

Zakiya: Risk my IT band,.

Titi: Risk it all.

Zakiya: To go get that wallet.

Titi: It is not happening.

Zakiya: And by the time I make all those steps, I'm like, you don't need to buy this. You have enough candles. How many greeting cards do you need to buy? I love to buy people's art on greeting cards.

Titi: I said this the other day. I was like, you do not need a sweatshirt that says 'cool aunt'

Zakiya: Yes. You do. I think what people forget is that all of this technology has to be it needs data to be trained. And I feel like no one is slowing down and saying, "wait a minute, is this the best idea?"

Titi: Yes.

Zakiya: Like Titi said, this technology takes all of these different pieces of information and it is relational. It says, okay, I see this is these peaks are up here. Those are your eyebrows and some of ya'll are drawing them too high. But that's not that's not what we are gonna talk about. And I say, these are your eyebrows. And over here, this shiny part right here, these are your cheeks. You know, so it makes so.

Titi: Too much highlighter.

Zakiya: Too much highlight. OK. That Nars albatross Titi bought for me years ago. And I'm.

Titi: And we've been painting ourselves with it ever since

Zakiya: And so it takes all this information. This is this is a face. But one of the things that we've been seeing come up in the news about this type of technology is bias. When people are programing and creating this software, They're saying this is what a face should look like. And if you only train these systems or this technology on a certain type of face, then yeah, you always expect the face to look narrow, pointy nose, little eyes. So it doesof us have big eyes. And I think it's so important. You know, these this technology is only as good as the people designing it and the datasets that they used to train it. So this is great technology, but there is so much room for improvement to eliminate bias. Right. And that bias can lead to technology that ends up being sexist or racist. And that's also been in the news. So while, yes, we all love dog ears and flower crowns and the smooth skin filter on Instagram.

Titi: Yes, it's perfect on a long day.

Zakiya: There is still so much more to do when we think about this technology being implemented in other areas.

Titi: Mm hmm. And it's inclusively.

Titi: And next up in our mix tape is politics.

Zakiya: And you may be thinking, why do we have to hear about this again?

Titi: Well, it's because all these things are very important to our everyday lives. It's important who is in these positions of power and what they're doing and all these things like that. So we're going to talk about it.

Zakiya: I feel like the story of the year has been crime. Who's doing crime?

Titi: When did the crime occur?

Zakiya: Who was in on the crime?

Titi: How many crimes did they do?

Zakiya: Was it enough crime? More importantly is it enough crime to be impeached?

Titi: Right.

Zakiya: So are 2019 political moment is around impeachment. Now, I've seen your tweets. I've seen your Instagram stories. And I'm a little worried because it seems like you all think impeachment is actual removal from office. And I hope I don't sound ridiculous, but that's not what impeachment is. Impeachment is just the filing of formal charges. You can be impeached and still remain president. I know you didn't forget Bill Clinton.

Titi: Right who was impeached, but then remained president.

Zakiya: So let's get down to the nitty gritty.

Titi: In Article 2, Section 4 of the Constitution, it gives the House of Representatives the sole right to impeach an official. And an official can be the president, the vice president or any civil officers of the United States.

Zakiya: There is Congress, right. And Congress is split into two houses. The higher house is the Senate and the lower house is the House of Representatives. I thought that Congress had the right to impeach. I didn't know it was only the House of Representatives.

Titi: So the reason why the framers, which is the people who drafted up the Constitution, put this into it, was because prior to the constitution being drafted up, each state had impeachment laws for their government officials. And so they saw that and said this is really important. And it's

important because it keeps all of our government officials in check. They know that they are not above the law. And if they do things that will harm the public or abuse the powers of their office, that they can be tried and possibly removed from that position.

Zakiya: So let's give the general flowchart of how impeachment works. Impeachment starts in the House of Representatives, so the House has this committee called the Judiciary Committee. And if impeachment is pursued, the House tells the Judiciary Committee to review all the evidence and see if there are sufficient grounds to impeach. Then the whole House votes on whether or not to impeach. And all it requires is a simple majority. If the House chooses to impeach, the Senate then holds a trial to decide whether the officer that could be the president or any other official should be removed and barred from holding federal office in the future.

Titi: Just a quick note here. We've actually never had a president be forcibly removed from office as a result of an impeachment. We've had two presidents that were impeached and neither of them were Nixon.

Zakiya: Yep.

Titi: Nixon actually left before the House voted on impeachment.

Zakiya: He was like, the writing's on the wall. I'm out of here.

Titi: It was actually former President Johnson and then former President Bill Clinton.

Zakiya: So there's a trial at the Senate. And if the Senate chooses to convict the president, that president is forcibly removed and the current vice president becomes the new president. So hopefully you have a better understanding of what's going on, what's been happening and what's coming up.

Titi: This was a lot of fun.

Zakiya: I could have gone on for hours. All right. So what would you say was the most important piece of cinema.

Titi: In 2019?

Zakiya: In 2019

Titi: definitely. "When they see us".

Zakiya: yes. I was gonna say that

Titi: And 'Us',.

Zakiya: A lot of people are talking about 'queen and slim'. I haven't seen it. So I can't really talk about it.

Titi: Right? Me either.

Zakiya: We have to go see it.

Titi: What is your favorite meme from 2019?

Zakiya: It's KeKe Palmer. hands down. I'm sorry to this man. I hope I don't sound ridiculous. What's your favorite thing that's happening in your scientific field?

Titi: Oh, for me, I think it's the redefinition of the kilogram. So before 2019, the KG, which is how we standardize all weight for everything, was an actual like physical thing that is housed under vacuum somewhere in Paris or somewhere in France. And so now they have this thing called a kibble balance that uses electromechanical measurements to define a kilogram. It's very cool. What's your favorite science moment?

Zakiya: When I learned that mosquito could taste DEET with their feet, which is why they don't land on you. I have my mind has been blown out tasting with their mouth. They have receptors on their feet.

Titi: And if you want to hear more about that, listen to our episode called 'predator'.

Zakiya: . Yes. That's when I went down that rabbit hole. And I haven't come back between that and our truth pie episode. So I started reading this book called 1412. And now I'm reading all about the landscape of the Americas before the settlers came. It is wild.

Titi: For me the book that I started reading after an episode was After 'How Not to Get Away with Murder'. Our guest on there, she has a book called Inside the Cell. Very, very good.

Titi: That's it for Lab 20. Don't forget to check out our Web site for a cheat sheet on today's episode. You can find it and sign up for our newsletter at dopelabspodcast.com.

Zakiya: We want to hear from you, though. What are some of the categories you think we should covered? What are your top moments for 2019? Tell us.

Titi: Hit us up on Instagram or Twitter @dopelabspodcast.

Zakiya: Titi is on Twitter @dr_tsho.

Titi: And you can find Zakiya @zsaidso.

Zakiya: Follow us on Spotify or wherever you listen to podcast. This episode of Dub Labs is produced by Ginny readily massive wave runner studios in Elizabeth Nakano Mixing and Sound Design by Hannis Brown.

Titi: Original theme music is by Taka Yasuzawa and Alex Sugiura with additional music by Elijah LX harvey.

Zakiya: Dope Labs is a production of Spotify Studios and MegaOhm Media Group and is executive produced by US.

Titi: Titi Shodiya.

Zakiya: And Zakiya Whatley.

Titi: So we'll be back in three weeks with Lab 21.

Zakiya: We hope you guys have a great holiday season. Happy New Year and we'll see you in 2020.