

Agenda : Advisory Board Animation/Digital Arts  
July 16<sup>th</sup>, 2020

**Advisors:**

Sophia Yu , Visualization Supervisor at The Third Floor Inc (sophiay@thethirdfloorinc.com)  
Alexandra Bryman (alex@thethirdfloorinc.com)  
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**VAMA Faculty:**

Eugene Ahn, Mike Kline , Laurel Paley, Alexandra Wiesenfeld (Chair/Vama), Jen Vaughn (Chair/Cinema)  
Natalie Embrey (IA)  
Deans: Armando Rivera-Figueroa, Vi Ly  
VP: Jim Lancaster

**Agenda:**

- Introductions
- What developments/ changes has your work/company undergone this past year. How did and does the world of animation/entertainment answer this socio-political-Covid moment?
- Our Updates: New programs, high school partnerships, industry partnerships, student success (transfers/jobs/internships), new building
- Looking towards the future: What are the trends that effected your work life?
- What developments do you see coming through technology wise
- How do we best equip our students for remote learning?
- Are there internships that your company can create for our students now, that perhaps couldn't happen beforehand? How do we best prepare our students ?

Chat

00:53:58 Eric Elder: [https://www.burning-glass.com/wp-content/uploads/Visualizing\\_future\\_3D\\_skills.pdf](https://www.burning-glass.com/wp-content/uploads/Visualizing_future_3D_skills.pdf)

00:56:35 Amarpal Khanna: Thanks Eric!

00:56:58 Eric Elder: You're welcome!!! Great numbers in there.

00:57:01 Michael Kline: I'll be using it during the current program writing phase. Thanks!

01:19:38 dougeo: <https://aggie.io/>

01:19:45 dougeo: <https://aggie.io/w1ju5m0vhl>

01:37:26 Sophia: securing servers for the students

01:51:02 Sophia: whats the website name that casey mentioned?

01:51:10 Amarpal Khanna: adg.org

02:27:27 Eric Elder: I have a great Worldbuilding course I've been developing for several years that is available.

02:27:43 Sophia: oh very cool! its online?

02:28:26 Eric Elder: I can teach it online. Have taught at LMU about 5 sessions so far

**Casey Bernay:** DGA all got together and wrote a [White Paper](#) on going back to work safely. Let me find that link for you and they're negotiating right now with the employers to try and figure out how to implement this.

The isolation is real: Trying to isolate the pre production teams is creating a lot of problems because we've shifted our whole education program to zoom. There's no consensus on how to do this other than it's going to slow pre-production down. And there are problems with States and companies asking members to waive their rights to take legal action if they get sick or die.

The industry struggling to find its way

And UNREAL is the future, guys. I'm going to tell you one thing to train your students unreal.

**Sophia:** I just worked on several unreal projects in the past couple months so we got something to talk about later.

**Casey Bernay:** Check out the Unreal fest. You can log online and still see all of it's free to do. There are a rising number of us that are convinced that this is the transformative technology for the entertainment industry.

**Amarpal Khanna:** For those who are unfamiliar Unreal started as a video game engine. That helped power like first person shooters and things like that. So it was instantaneously real time interactive and then evolved into kind of a production tool. Both in live action animation. And for now pushing into 3D animation as well. And it's kind of streamlined Production decisions. Without any waiting around for rendering or for scenes to come back. The entire crew, everybody that needs to see that information, can see it right away and you can start iterating on scenes. It's shorten the production time and complication of production time made it less complicated, immensely so. So, and it's every phase of production. Concept a preproduction during post production, all the way through.

**Doug Olsen :** My name is Douglas and I'm a director on Rick and Morty, and a few other things currently working right now. so I may have to duck off in case any of my responsibilities turn their heads.

**Amarpal Khanna:** what developments slash changes has your work and company undergone this past year. So I guess a two pronged question. How has your industry responded to this time with Covid, and things that are happening socially and politically. What are the forces that you see operating in the short term, that would affect what we're doing and in the long term, that would affect what we're doing.

**Casey Bernay:** it put Hollywood out of work, except for animation.

So we've been shut down the unions are suffering.

We haven't even begun to see the devastation that we're going to see in Southern California because of that. So we lost all our funding for our training programs. We had a about a million and a half in training and that all got cut off this year so. So they went back to their core and are only taking care of things that there are clearly in their minds contractually obligated like safety training and harassment training and things like that that are already online.

So a couple of months ago I was tasked with building a new training program with no money.

We pivoted to a zoom based training program. I started picking up people who just had good information like motion picture television fund and you know sofa--Society of Financial Awareness, who will do talks about finances for free.

So we're now serving between five and 700 members per week in seven events.

Best practice for online learning is 90 minutes, I'm told.. We do a half hour afterwards for Q and A and some classes drift into that, but more importantly we open our zoom in 45 minutes before class to create social context and to let people talk. One in five individuals reported loneliness being an issue and are working from home. Put that into your curricula somewhere.

So we're dealing with those issues along with trying to push initiatives for inclusiveness and diversity.

And reaching out to Epic Games, reaching out to Unity, and Unreal.

**Amarpal** : How much traction do you see that Unreal has compared to Unity. Or the other way around: Unity has compared to Unreal.

**Casey**: Unity allows it to talk to other software, Maya and AutoCAD and other software, more seamlessly and that's on the Unity side. So there are people who are proponents of that because it makes translating their assets, much easier and make the pipeline more efficient.

But then we have what we call the group from Mouse Guard, with MasterCard was a series of anime of illustrated books and Fox was doing it as a feature using Unreal until Disney bought them. And as we know, there will be only one mouse. So we did our first Unreal event and had about 200 members show up and whenever we do an Unreal demo where we get close to 200 people, but the same was true of the first Unity event.

**Amarpal**: So to tie it into the overarching question. The depth of adoption across different industries and different productions has kind of sped up because of the moment we're in

**Casey** Unreal is hugely disruptive. You guys should be looking at an epic mega grant, too, by the way.

**Amarpal**: We have a separate initiative, we're trying to get traction from the boot camp that you put on that we hosted, kind of started the conversation of, what would a production design certificate look like and how Unreal could help facilitate that.

And we're trying to figure out best how to slot in the Unreal either on the gaming side or on the production side or just bring it in and try to do it on all across the board.

**Sophia**:. So at third floor there is definitely this huge push to integrate unreal into our pipeline. I mean, it's already started.. And so actually the Mandalorian was the project that really propelled Third Floor into jumping into the Unreal business.

It was used in virtual production. So one of the ways that they really wanted to utilize unreal on that project: they would shoot the actors in motion capture suits, get all their performances every single minute of it. We want this whole thing planned out before we send it off to the effects. So a lot of times I was just Dialogue scenes with people, you know six people, sitting around the table and talking. So what they would do is after they get there, they capture their motion capture performances, their facial performances, then Third Floor would bring it into Unreal. I've just started like diving into it and learning to work in it, but you get a lot of like real time interactive like lighting. And effects and you get like grass blowing in the wind for free. So in previz our effects team tended to create super rudimentary image sequences on cards. incredibly time, they're incredibly technologically heavy they require a special skill set that certain people in the industry have. And then after it's already in Unreal, and everything's playing in real time, it processes information like animation and effects and lighting in real time. After that, the director would be able to go in to actively work with the artists to set up cameras. So, the director could literally stand behind your shoulder, looking at this performance of these actors. They have the whole performance in one file and then just throw all the cameras in and are quickly able to build out a sequence of shots using Unreal, which wouldn't really be possible in Maya, just because just the way it's set up. The processing power is so much slower and it really requires rendering out each individual shot and then editing it together before you can see the final result. And because of the

Mandalorian Third Floor built all these like insane tools so that regular artists could use Unreal. So that's like a huge kind of a huge technological barrier for a lot of people is the barrier of having to learn an entirely new program. But, Third Floor is working on trying to overcome that by basically making it as easy as possible for artists. To use these tools that we've created that make integrating between Maya and Unreal really smooth. Some other previous companies like Halon, they've been using Unreal.

**Michael:** Do you have the new beta version of 5.

**Sophia:** Of Unreal? I think we're on 4.5

**Michael:** I'm just curious because 5 is going to be a game changer when they, when they released that I was curious if you had an advanced version.

**Sophia:** I mean one issue with Unreal, is that every time on real updates we have to re update all of our tools because they rewrite it.

**Amarpal:** Yeah, and I kind of foresee that, you know, like with most tech, the more iterations the more widespread, it gets, there'll be more user friendly versions of it and people who can't wrap their head around using it right now. It will become a staple of production across the board.

**Casey:** They are called migrant film workers because they literally grabbed their computers and off they go to where we're in the equipment to wherever it is. And it could be in Georgia, and it could be in Kentucky, and it could be in LA. They work where work is They spend their money themselves. They do get kit rentals or box rentals, but it's not usually enough to, you know, to buy all that snow. So once they made the software free all of a sudden that changed the value proposition in using it and they're aggressive positioning for learning in a number of different ways so that you can learn it for free and YouTube and videos and tutorials and

**Sophia:** You guys are integrating like unreal classes or in a real component into like the digital program.

**Michael:** Yes.

**Amarpal:** What development, do you see coming technology wise, since we have Eric Elder Our gaming advisory guru, Eric, do you want to introduce yourself.

**Eric Elder:** media arts consultant specializing animation games and XR have known V and report for a long time. My take on the Unity / Unreal thing. Ideally, I think you want to offer both, I think unity is a great initial goal. I think it's somewhat simpler of a learning curve. It kind of reminds me of the 3d's Studio Max Meyer relationship. starting with Unity and then going to Unreal. It depends on how you teach. I don't think it's necessary to have both. I think it's really just a choice at this point. curriculum wise, in terms of tools, Unity has done a great job in keeping pace with Unreal. Depending on the project. the fidelity of image that you can get out of Unreal is still a lot more dramatic than Unity, but I've seen so many amazing things come out of Unity. So again, I think it's more about the user necessarily than the tool. But one big differentiator for sure right now is that Unreal is very highly capitalized because of the success of Fortnite. So they just have hundreds of millions of dollars to throw around, I think the fund for the Unreal mega grants is 100 million dollars. Yeah, and unity just doesn't have that that kind of resource. We have a good contact there. I've been talking to, I don't know if you guys know Belinda Solheim. Mega grant put in one for the XR widgets lab. So that's something that I'm I like the pilot at either Santa Monica college or at LACC or both.

**Amarpal:** LACC!!

**Eric:** also I was invited to work with them on a pilot program. And Compton Unified so we're looking at doing a Game Wizards Compton pilot program in August. And there's actually some spaces available. So if you guys have students that are interested in getting the boot camp.

We got an amazing Instructor, Benny Terry, who is the executive producer of the new world of game for that which was released title for the PS five. He's a volunteer to teach the course.

They want to one of the big reasons why you want to support it is because they have a new Virtual laptop solution. So, you know, one of the barriers for schools with unreal has been having a hardware to be able to run it. And with this new solution, you can virtually connect to a computer or

someplace else. So you can get to know the beefy power of a gaming company on a Chromebook, which, you know, pretty widely available in the school system.

**Amarpal:** So you're talking about is remote desktop solution, but it's coming through Unreal. As soon as you log into their servers.

**Eric** with the mega grants, they don't fund hardware. I would imagine through all of their conversations with schools and learning institutions that constantly comes up as a barrier. And so it's really important for them to make them available to you know lower income underserved communities. So this is a really big initiative for them.

**Amarpal** So, on the gaming side, Eric, what you're saying that the situation is a little bit different than on the live action side where people are waking up to the power of Unreal. But in gaming, it's, it's more the de facto situation that the de facto game engine that's being used and there's not much in terms of the, the newness factor in the gaming world.

**Eric** I think game developers are a lot more used to Unreal. But I mean, Unity is especially for mobile. And just because of Unity's inherent ability to, you know, publish multi platform. You know it's making them made them a really viable solution over the years, but I know and like a lot of the conversations I've had around VR development. And again, having just really high. quality imagery Unreal, it is preferable, especially with the studios, like Third Floor and any high end triple A studio that's making XR.

**Amarpal** So Doug represents the world of TV production TV animation production.

Have you heard any talk or do you see it being utilized in TV. TV production at all. Unreal or any other kind of previous software, other than storyboard pro and storyboard artist.

**Doug:** No, we don't get that high tech with 2D. I mean, in television, maybe some mo cap kind of thing. And I know there's across fade into live action special effects, but I'm down here in old 2D TV Land, we're just using good old fashioned Photoshop and storyboard pro

**Amarpal** Read there's a board artist who shared on Cartoon brew he's using Procreate on an iPad as his storyboard hack.

**Doug:** Yeah, you see that. Another thing that's coming up is, I feel like I mentioned it before is Blender has this interesting tool called grease pencil. You know, it's like a 2.5 D thing. But, I mean, it's all fairly, you know, drawing based, cintiq based

You know any kind of tablet tech you know that's the kind of the bread and butter

**Amarpal** you don't see that changing for the foreseeable future for 2D TV animation. tight budgets.

**Doug:** surely, yes, it is a budgetary thing, but you know you don't always need fanciest tools to make the coolest shit

**Amarpal** So that kind of pushed us into looking towards the future. I'm moving the circle back up to the top. In case you Sophia, any, any of the guests. Eric, Doug, feel free to take this

In terms of changing the pipeline to Production Pipeline in response to working remotely. are there any things that you would consider new or innovative with different that would inform how we at the college deliver instruction remotely.

**Casey:** Accessory software's for sharing information. That's, that's a real focus shifts. Like, how do we share files, how do we how do we create virtual war rooms. How do we create places where we can share working document and kind of replace that the supervisor walks by and looks over your shoulder. How do you share the information, how do you organize the information, pass information. And particularly if you're workforces spread out and instead of in one building. How do you access the servers. How do you maintain the secrecy and things like that. So you might want to look at incorporating some of that into your teaching component about security File sharing and their whole jobs about just organizing the data streams.

**Sophia:** in terms of our typical workflows almost nothing has changed. RDP (Remote Desktop Protocol). I think the two biggest issues was definitely one is security because we have some pretty high profile

clients like Disney and Marvel , keeping all their content extremely secure and private .Had to jump through tons and tons of hoops in the past couple months to really build up a system that would be secure enough for them. There's only so much we can do in the middle of a pandemic. legally, we should be an enclosed spaces where no one can hear or see us. But the reality is that's just not possible. And then the other issue

how do we communicate effectively with our teams.

On a typical workday, the supervisors like over your shoulder like multiple times a day.

just to where you are at with your shot. And if we need to like reassign priorities. how we do that online and It's just, we're just constantly like on video calls like it's when people are giving notes. Most of the time they just jump on a video call to give the note properly because we're in a visual field. So sometimes You just want to make noises and hand gestures and so you have to do that on a call. You can't do that through Chat. And I'd say those are probably the two biggest Changes.

**Amarpal** No, I really liked the idea that both of you shared of introducing the topic of security. I mean, of course, always in our industries. The idea of NDA and be diligent on how you secure the data and the things you're working on and have always been paramount. But I think now it seems like it's not going to go away anytime soon. It's going to probably be hard baked. And so for students who grow up in an environment where information is free and they share everything and so that would be good to bring that topic into our classrooms.

**Sophia:** I feel like that's just professionalism, I but it's different from animation to say previz or visual effects.

**Amarpal** Doug, what do you see happening in terms of the delivery pipeline and working remotely.

**Doug:** A lot of that kind of cross pollination of ideas that will happen in the workplace is not happening. So it has to happen in other ways. maybe there are some weird unforeseen kind of alternatives that aren't so bad. I don't know if you guys know aggie.io . I'm going to drop it in the chat. It's kind of like a browser based Photoshop. And you can just basically click on a start a new drawing, I could send everybody the link to drawing and now we can all draw on the same document helpful. Just kind of be sketching thumbnails.

In addition to being able to work in animation. I'm also doing some freelance on the sonic movie, there's going to be a sequel to the Sonic the Hedgehog movie.

And the director and every few weeks we meet up, and I've just got the storyboard probe and and it's almost like we're sharing an edit bay. So, you know, in addition, you guys should build up your storyboard program is what I'm saying. Because it's just like obviously it's a very in demand position. story borders are some of the hardest spots to fill in in television

**Sophia:** It's an incredibly competitive so storyboarding

**Doug** the talent bars got to be pretty high, because I'm on a show right now where, , we're actually think we're actually close to letting people go because they're just not good enough.

**Sophia:** Is the bar in terms of like drawing ability or like telling a story or character like I'm just curious what kind of traits you look for in a storyboard artists.

**doug:** Are you good at interpreting scripts, like can you make effective choices when it's both storytelling as well as easy to produce stuff. But yeah, I mean we're close to letting one guy to go right now because he just leaves so much on the table when it comes to, augmenting a script visually . he'll give you a very boring interpretation of what's there, but he's not shooting to enhance the story. And plus he's always drawing off model.

**Amarpal:** Right, right. So for those of you just to just to catch you up still animation, you have to draw on model. in live action drawn on model isn't factor really just really more of a visual storytelling aspect

**Doug** a lot of people do want the jobs and there's a lot of people trying to get them.

**Amarpal:** I know you're familiar with the boarding process and Eric definitely based on your production work you've done

The previz world using Unreal. And using that as a way to visualize the storyboard aspects. I definitely think for the future students who learn both and are able to effectively do that are going to be even more in demand in the industry.

**Sophia:** Yeah, it's really interesting working in live action because most live action films, still do use storyboarding sometimes they use it in conjunction with previz. Which I feel is like story. I always had this impression that storyboarding should be done before previz but sometimes we switch the order, so sometimes we do previz first and then they use storyboards to clean up.

**Sophia:** To visualize some new ideas and then they throw it back to previous to like visualize it in 3D, and then I've also worked the storyboards first and then just follow the storyboards for previous pipeline as well.

**Casey** Some of the pipeline related depending upon your director, producer.

Your production designer is part of the Art Directors Guild. So, and some of those people working in animation as well or do cards. What we've seen on the Union side is a big push towards the non-union offers. And then it's just a matter of salesmanship somebody says, oh, you should pre viz things first, and then we'll do the boards and they'll sit down with the board artist, first, so it's pipeline comfort for the producer

**Sophia:** Yeah, it depends on what the director and the effects producer is used to. Because if we're getting a more traditional type of director, they'll probably prefer to work in storyboards. But then you've got companies like Marvel where they're planning on integrating previz into every single project moving forward.

**Casey :** And there was a time that was kind of a hybrid, like an animated storyboard.

**Sophia:** Exciting, sounds a lot like virtual production which we do. Location scouting is going to be more challenging. Now, because you can't really be sending people to travel that often without huge liabilities. We do a lot of like scanning of environments and then letting the director location scout inside the CG environment. I mean, that's definitely a direction that maybe we'll do more of. Not that we could ever replace true location scouts.

**Casey** Matterport camera LIDAR photograph a tree and these are the things that we're turning our attention to specifically

**Amarpal:** So Casey really quick just to bring everyone else the matterport cameras. It's a technology that's also becoming viable. It's a 180 or 360 video, depending on what it's for. It captures an environment in a series of separate images you upload to a website. And they stitch the image together for you to have a seamless way of your 360 environment that you can scan around and then drop it in almost as a composite or beam onto an LED wall and shoot an actor or composite characters and it looks seamless.. Would you say that's something we should also be kind of considering for further acquisitions future acquisitions?

**Casey** Yeah, I think you should, I can hook you up with their sales guy in Chicago.

I was just talking about going out and buying a matterport. Super accuracy and reduce LIDAR if you're going to have to build something physical to actually be 100% accurate to meld with something digital, virtual scenery. And that's the differences that we're starting to struggle with. I don't have a lot of money and I have a \$400 matter port camera. Who owns the image and the upload and the stitching and all that stuff is a copyright issue. You know who actually has the account that's an issue. So there's a number of issues with this, but it is clearly both the cinematographers Guild and production design. The New York guild and us are very seriously looking at this technology as again game changing.

**Amarpal.** I'm going to put this over to Eugene, because I know you've done some work with the drones. Do you see viability between the matterport and drone technology? using those coming into what you know about our program that city and what you'd like to do as an instructor

**Eugene** One of the things that I want to ask to the group.

What about is there are there progressive tiers of equipment and technologies that would prepare them to understand the concepts and be able to apply these things. I asked this, because a lot of the things that we're talking about. you guys mentioned a specific piece of technology which is industry standard. However, you know, there are lots of different things that can produce the effect in in my web design classes, instead of

some super high end photo parameters solution or some type of VR thing. I have people go through using, the VR. camera with Google Maps and they produce VR web pages you know with actual scenery that you can navigate know instead of a 303,000 plus dollar 3D camera. I have an Insta 360 you know camera, which is a couple hundred bucks and i can i can go anywhere and shoot all of the different kinds of scenes, they're not perfect for top flight high end production stuff, but for the web. They're great. I can mount it on a drone and do my aerial capture. They represent an opportunity for us at LACC to bring in working concepts of these technologies in a way that maybe is even more this practical during pandemic. my question is, well, yes I you know the there's some amazing applications for all these things to if we approach this idea creatively and thought about other types of experiences which may or may not necessarily be working with the industry standard

**Amarpal** Eugene, spoken like a true activist. And open source is definitely a consideration. It's something we would like to explore in our classrooms. And he's absolutely right about the Insta 360s. They're great. They're not that much bigger than. You know, an iPhone, that can be attached to things . I could see something where, in one class of beginning level class. Maybe they use one set of tools to create an effect. And in the next level class they use another set of tools to create the effect. So I really appreciate that and you touched on one thing also

Which has come up over and over again in different ways. But the idea of We, you know, we're generating data. how do we store this data. How do we transport this data and we've had these conversations, even last year, about a server and getting a dedicated server or some kind of virtual server. And that's come up over and over again. our invitees if you have any thoughts on how your particular worlds are handling servers in a innovative or inexpensive way that would also help us. I know we've we've all three of us have struggled with that in different ways.

**Michael** The server issue in our campuses, a little bit out of our hands, it's, it's an IT thing that we have to wade through

**Eugene** Which is, you know, for my discipline: web, having access to server power.

To bandwidth that's public is essential and Mike is absolutely right. We don't have power to do that. So my solution has been to buy my own servers. I have two servers running right now. One is exclusively in support of our students I pay for it completely out of my own pocket.

And I will continue to do that because my students get a real experience of what it means to be working. What are the things that you advocate to us if we do not have support from our IT department. What should we do. Should we find a partner.

In my experience, so I've had to go down this road for my discipline.

**Casey:** That's I'm saying there is a there is a position to be filled on every production, if not multiple to handle that specific issue.

**Amarpal** So it's not out of the realm of consideration that there should be. Or there could be a dedicated person or persons on campus that can handle that. Because not only our department is generating data in this remote environment, but also cinema and potentially other departments as well that would have the same need. So it could be justified across multiple departments.

**Sophia:** Quick question, how our students currently saving out their work. Do they have access to the school server or they all just doing on their own computer.

**Amarpal** If I think we're all doing it in ad hoc various ways. I just tell them to save everything out as PDFs. there's instances where I do need to check their files. But even with that Canvas limits Instructor space. So there's a little bit of a bottleneck there. We got to all make adjustments individually.

**Laurel** A lot of Google Drive action.

**Vi:** I think there's two different issue. One is clearly a that the space to allow you guys who say content that I produce in the classroom. And that might be tough, simply because we have so many areas that we teach that require high volume. So I'm not sure what ever will solve that. The other one is for classes like Eugene's classes where I see the need for servers ,I look at it more as a just another tool to teach the course. So in Eugene's class in a way you can look at those servers. I wonder if we we could navigate the system in a way where it works as a standalone. We have nine different colleges and a central office that they would allow us to, you know, that our IT department will be able to support us to begin with. So, so we need to like think outside the box. How to solve it. And I think the first thing to think about is how to solve Eugene's kind of class, then the second would be what we do and I think it, it may come down to having our own server.

**Eugene** I can almost guarantee you the solution we figure out for web will set the precedent for the solution that we have for, like, huge, huge animation files.

**Amarpal** Good that it's come up because it's I think it's going to become more prominent. We work across departments and try to get something like Virtual production up and going between Vama and Cinema and you know we're having to exchange files and things like that.

Sophia may be uniquely positioned to answer this question we've been hearing a lot about SUBSTANCE PAINTER. And using that as a tool in the pipeline. CASEY You might have been hearing things about SUBSTANCE PAINTER as well. Can either you speak to industry for free to chime in as well.

**Casey** There's a number of tools people are starting to look at more seriously SUBSTANCE PAINTER is one of them Affinity Designer as a replacement for Photoshop and Illustrator is another tool that's being looked at. So yeah SUBSTANCE PAINTER

**Sophia:** I'm not a modeler myself. So I've never personally used it. But as far as I know, every Person who works with assets in our company uses it or learn to use it once they enter the company. For us it's industry standard. And as we're going to Unreal too we're using something called PBR textures, which is basically like a type of texture that reacts with light. Well, and I think that's something that, that our asset people also use SUBSTANCE PAINTER to create.

**Amarpal:** So students who are learning in a Maya pipeline of modeling and working with objects. That's something that should be in their skill sets or they should be at least familiar with to be viable in the marketplace.

**Sophia:** Yeah for previz. I mean, I'd say for like generalists it'd be a great skill to have. And the kind of people that previz looks for are people who can who have a general understanding of modeling, rendering and texturizing, which, you know, generalist versus specialist is like a whole other discussion. Depending on like where you want to go in industry.

**Amarpal** Thank you. Sophia, Eric. Any thoughts on that particular App.

**Eric:** I've been hearing the artists that I work with are playing around with it. So it's definitely coming up,

**Amarpal** So, number six, as far as your industries internships certainly internships have been viable pathways for students to get told and industry and get some experience.

Do you see that there's into internships that your companies, your organizations are offering And are there may be different pathways into industry now that in this remote environment..

**Sophia:** yeah, we took on apprentices during the summer or late Spring. Once the pandemic started. I think it was like a group of six like fresh grads and it sounds like it went pretty well.

we're still taking on apprentices slash interns for the for upcoming future and I bet we'll have like another set in the fall as well. And in terms of like what we were looking for in them. It was just, it's the same stuff as always, like, we kind of just look for Kids who have a good eye for camera and then have like a good solid foundation in animation as well. And then, they have some skill set in being like a CG generalist

**Amarpal** I think you guys are in the what fourth or fifth year running that program now it's been pretty well developed and you have a cohort of what like 10 students, I believe, or 13, something like that every summer. from what I can see, it's like every like three times a year, two to three just kind of depends.

**Casey** In terms of skills and what they're looking for. If you go to the ad g.org website and go to the directory and you type in the name of the job senior Illustrator previous artist art director, it will bring up The Members who have made their information available and your students could do some research as to what skill sets are needed. And go to IMDB, find the name of the people who worked on that and start data mining backwards to get the names of some people who they might meet in a Slack channel. One of the reasons you do internships, is to start building the network. It's not just about developing the skill and having a job. It's about building a network that gets you your skill. So you might want to think about using this amazing resource that sitting here. We have a initiative that is called the PA initiative that is normally

been looking for high level students with high skills to become PA's in an art department. So someone is looking for a PA can hire someone off that list to be an entrepreneur VA.

Right now, that's as close to a formal internship, as we have, however, in our poll, I contacted you about this. They are looking to broaden their reach to increase the diversity and inclusiveness of that program. So I am directing them to LACC to talk to you guys about students. They are kind of, you know, fast track, for instance, our production assistants take are taking our zoom classes they are meeting again network, network, network.

**Sophia:** I just say really quickly. If you recommend that you know your students talk to reach out to these people, you should definitely do a little bit on professionalism with emails first There's a lot of people out there who don't know how to properly send a polite email when trying to like connect with industry professionals. So that's really important.

**Casey** Yes, social skills. Absolutely. Look, there are a gazillion really talented young people out there .And it's, you don't need a Silicon Graphics workstation that cluster Bazillion dollars to do this anymore. You're doing it on your laptop.

And schools are equipped with these things social skills are now a key soft skills.

How to Dress.

**Casey** And those skills are is equally important as your talent base.

You know, the sense of responsibility, the willingness to work the willingness to be accountable But a mediocre and I hate to say this but a mediocre artist who will who serviceable who is dependable as a rock shows up does his job gets it done, easy to work with, communicate well will work 50 times longer and better than some crazy genius who does fabulous work

Amarpal Khanna: Okay, that that's that's excellent to know and we'll definitely take that in consideration. Great to kind of go over all the things that came out of your participation or you've contributed to our programs in our school and then we'll quickly i highlighting some things that we've been working on internally and some of the things I think would be useful to spotlight. Doug and storyboards and talking about storyboard Pro, we were able to secure a lifetime license for storyboard pro. And that'll help us that's one less expense. We'll have to thank you a and certainly V and Armando. Casey your input has been invaluable and certainly one of the more visible things that came out of it was the big Art Directors Guild boot camp that was held at the college and because of that it helps

Kickstarter discussion around what would it look like For production design certificate. There's been conversations and meetings Laurel's been on, you know, a couple of them around how all three of our departments cinema theatre could collaborate and start to work together towards that end.

We certainly have all the resources and that's something that we didn't necessarily realize

So this kind of multi disciplinary thing of that workshop, the impact of that was all the students who attended now know production design. And certainly the presence of the local and what it entails to do that kind of work and help kickstart that kind of interested energy. So thank you for that.

**Casey** the diversity committee and the other committees are very interested now in in pursuing that certificate, guys. So let's follow up, please.

**Amarpal** Yeah and you know the unique thing about is I just want to point out from my research and maybe feel free to share and chime in if you see anything different, um, there's very few even for universities. Nationally, I think it's a very small handful forgetting the community colleges that offer anything remotely preparing students to go into production design for live action or any art department job in live action. I think

Certainly cinema. They've been very proactive and robust and what they do and doing practical shooting, but this is a whole area and a whole Industry, the art department is the largest

Credited department on any live action film. It's totally being underserved and I think we have a unique opportunity based on a relationship and based on the work that Casey's done with us that we can kind of address that and start to track students to be prepared to look at that field.

I'll probably loop you in on that to get your insider perspective on what we could be doing anytime okay and Sophia I shared with you. Certainly the conversation that I started with Doug.

: Over at Third Floor around what it would look like to have previz and VR just from your input alone, we were able to secure some VR equipment, the Oculus headsets.

And kind of like an area where we can do VR, Mike, do you want to speak a little bit more about some of the things in the VR initiative, we've been able to secure moving forward.

**Michael:** Absolutely. we've been building up what potential curriculum will be for some certificate programs. Thank you, Eric. We were able to secure some motion capture suits. So we'll be in the future teaching CG character animation using keyframe techniques and motion capture we have those two real coca three real Coco suits now.

Michael Kline: Which is really awesome. We also got new Oculus headset and some HTC Vive headsets and a couple of laptops to run them, which is awesome.

So I'm not going to spend forever going over this just kind of wanted to show everybody that this is what we're working on. We have a high school initiative where students will take a dual enrollment course we'll start with our ART 250

And then they can start in the fall, jumping right into traditional game design theory computer graphics one and a visual development concept design course.

And then they would continue through a game development where we introduce unreal.

And we would do a CG asset creation course where we're doing the whole pipeline from Maya to SUBSTANCE PAINTER to unreal.

We would also take animation principles and then production studio in the summer where one's going to get together work on projects and then we'll be done.

And then we'll have a second certificate, where they could advance their skills overlaying with that we're doing. A revamp of the animation curriculum where we're going to be integrating some of the same courses. But in this case, with more of an animation bend to it.

And then we have what we've been calling our Ghost previous certificate that would interweave through all of this and I can send this out via email to anybody who's interested in taking a closer look at it. I would value your feedback.

Our plan would be same thing or 250 computer graphics one intro to cinematography in the cinema department. Cause of design and then we were doing character animation with our key frame and motion capture getting into the game engine in this course storyboarding and then finally wrapping up in a production studio So this is like what we're building curriculum wise and again I would value everyone's feedback.

**Amarpal** Mike and I have been crafty little elves and we've kind of started putting things together. So it's the first time you're probably seeing the previous certificate, but certainly the conversations from our last meeting and input from Sophia and Casey and Eric and Doug have influenced this. Seeing that this is another area that needs to get addressed and how as a community college we can kind of be ahead of the curve and prep students to really come out with a set of skills to hit the ground running.

**Laurel:** when I was looking at the data for the jobs in 3D in the in the information that I had access to it wasn't that robust right and when you create a new certificate, you have to show the state that there is a job needs and that document, Eric, is so vital for us because we can use it. If there is another Data documents that show projected job needs that we can use to bolster our arguments. The animation certificate to get things through.

**Casey Bernay:** The local 800 represents the previz artists.

And we have an organizer, who is dedicated specifically to that arena and that's all he does 24 seven so he has probably statistics and numbers and information that might be helpful to you. That's Ron Alan

**Casey Bernay:** Yeah, that's it. Previz really is just a part of concept and storyboard. It's just another tool during the fulfilling the same function in the production stream

**Vi:** So I just want to say something in case, our advisory board members look through this and I want you to keep this in mind as you think about feedback that you want to give us

Is that when we build certificates. There's a couple of logistics that we need to think about

**Amarpal** And. And also, I would say, you know, as our industry partners because it affects your bottom line, you probably have access. You know what the numbers are. Because your companies are doing the projections. So you have access to some of that data that would be relevant, and you know, there's a little bit of a gap between when the numbers come out at the state, the state and the federal level as to what's going on the ground.

So there may be some more current or relevant information that is not out there yet at the at the governmental and state levels that would greatly help us push this through. So some, you know, I'm sure, Eric. You've seen a lot of things in terms of projections for numbers.

And our invitees at the third floor. I see Alexandra has joined us. Thank you. I'm sure there's a lot of data that you see as well. Alexandra. On that note, is there anything you'd like to add

**Amarpal:** For in particular around kind of the future and what you see happening in terms of jobs and growth in your field.

**Alexandra Bryman:** Um, well, first of all, I want to apologize for the late entry. The new previous certification program that's super exciting. Yeah, I think you had the star with us with Sophia And I heard her talking a little bit about our apprentice program, too. And I'm happy to jump in if there was a couple more questions about that. But we definitely see

The, the core skills. It's always important to have strong animation skills.

Sketching skills and like I see with the game engine, it's just

I think you guys are on track. We're very excited about that in our field and just seeing all of the new software that we can see these great vendors coming out with

**Amarpal** You know this, this may be shareable information but

Let me ask in a broader sense. Do you see previz shops take an expanded role because of what's happening tech moving outside of just the box of previous and maybe pushing into full fledged production development.

**Casey** I think it's a natural growth area for them. I would definitely be looking at taking that skill, because it is a core skill that they have and moving in that arena. I mean,

**Sophia:** So first off previz is expanding. I mean like MPC / Technicolor is creating their own previz department and there is starting to be some competition for the pool out there of good previz artists and also I mean just rumblings around the company.

That all these Hollywood studios are going to start filming very soon or, you know, are in the process of figuring out how to do that. Artists needs are going to shoot way up starting August as early as August and probably going to continue going up because now all these students are like scrambling to catch up on the work that they weren't able to do in the past.

Two months. I know there's that. And then on the terms of

Will previz expand into other areas? I know we're also looking to expand into doing more finals animation. I think grievous has always kind of

Been looking at different ways that it can be used in different areas, areas not just film

That like the artists have are going to be transferable to a lot of different areas, even though the core skill set of, you know, knowing CG is going to be there and then maybe

Are more. I can email you more later to figure out, what kind of numbers you guys would like to see or want and see what I can like pull out of third floor.

See if there's anything helpful for you guys there.

**Amarpal** Excellent. Thank you. So good. And I'm going to pitch these questions over to Eric and Doug. Eric, in terms of gaming. What do you see the growth area for jobs as and what we could be preparing students where you've seen that the certificate. What's your view from where you are.

**Eric** I mean games is continuing to grow.

In terms of like team. So there's always AAA opportunities, but

You know, smaller team sizes for things like mobile and indie games going through steam.

I'm back consulting producing working on Like casino style lottery games now. So that's like another segment where, you know, years ago, they weren't using game engines at all. And now they're producing games and unity for like big, big displays for lottery so

Yeah, I'm just continuing to see the opportunities open up. But the other thing about that report that I think it's really exciting in terms of your numbers and showing proof of jobs is that even if again your students want to get trained in tools like unreal and unity, even if they're not able to even initially land a job and entertainment previz or gaming, or

Or anything like that. There's still these other more industrial areas that are opening up, particularly, particularly around XR like if you look at the Oculus

Developers Conference last year it was pretty nutty. Even the augment World Expo. It was pretty much all enterprise, so medical training applications architectural

You know, heavy machinery, just little types of training applications. so those same skills can be utilized

**Amarpal** Thank you for reminding us of that, and that is that represents a huge opportunity as well in terms of job growth, which is going to be driven and it's certainly not thought of immediately because it's Entertainment has the sexiness factor.

But industry and development has the finances and the resources, definitely.

**Casey** Add a whole track automotive. Unreal had a whole track that was just automotive and another one that was architecture.

**Eric Elder:** Yeah, keep an eye on the Oculus quest. I think it'd be great to at least give you one of those and You know, and it's under 400 bucks. And again for enterprise training with what's going on with covid now. You know, virtual meetings and Just interacting like things that you before had to do, or were intended to do in person are a lot more accessible with something like the quest and building out those environments and the interactivity that goes on there.

**Michael** And that's one thing we're a little weak on is working on. We don't have a dedicated VR course in any of this. I mean dissipating it's spread across a few other few other courses like level design and definitely the production studio we were doing, we would be doing some VR, but I would ask you, do we need a dedicated VR course.

**Eric Elder:** I would not have been advocating for courses because I just feel like the space is just moving too fast, that by the time you get something approved.

It's likely going to be out of date. So that's why I've been developing the concept of this laboratory where you know, it's more about the individual project than take advantage of, kind of, what's the latest and greatest at the moment.

And again, what you want students learn the basic skills of building a VR application, they can apply that, you know, moving forward. So yeah, definitely want to follow up with you guys about the lab and possibly doing a pilot with epic at LACC and figuring out how we can do that virtually

**Amarpal** And Doug growth areas. I know with the explosion of streaming as a factor in the tech companies pushing in there's been an explosion of IP development and creator deals. How do you see that affecting the landscape for jobs and growth areas for jobs in animation production.

**Doug** I just, you know, I mean animations kind of one of the only game in town right now, so I know there's like a big appetite for automation IPS. I'm working on a few myself and You know specifically because you know they're designed to be produced in this kind of space. So IP for sure. Outside of that, it just seems like the industry, it's growing. It's a growing sector, just because of our, our circumstances and a lot of it is just like it's a lot for animation. It's a lot of bread and butter skills. It's a lot of being able to draw

Both bought figure and landscape and all those things and then, you know, there's not that high of a tech hurdle, you know, I mean storyboard Pro is not Unity. It's not you know in Photoshop. These are basic things. So, you know, I think the important thing is just to have those traditional skills You can get in with some basic ones, but the more well rounded you are, the better.

this is something that I wish I had done more of its as far as IP development goes is just basic kind of like writing storytelling type skills.

Just like in conceptualization of, like, I mean like, it's interesting to kind of like, as I get to know more writers .

You know, like, whistling past the graveyard. When you have to do something hacky just to get to something cool, you know,

Like, there's a lot of that kind of stuff that I think would be nice to round out like an animation professionals thing because obviously their storytelling and storyboarding like even when you're just kind of doing that basic scene building stuff so

**Casey Bernay:** And I think the other thing, too, that is to for every all across the visual industry is your artwork is not for you. It's in service of the story.

**Natalie Embrey:** No, it's all good. Um, I guess, just like in terms of the person that I am in the department is really the hands on like hardware kind of stuff. Is there any like bare bones. This is the kit you would need to be able to work.

From for like a very beginning right at a school graduate that you guys can suggest for something like that. I'm more on the like the gear side.

Because we're trying to for photo. At least we're trying to create these kits that will be married with a class so that a student can function at home remote distance learning. So if you have any insights on that.

**Amarpal:** One of the things we're struggling with is convincing. We're not convincing, but making the case to the higher up mucky mucks that Chromebooks aren't going to cut it for what we need to do for our students to successfully work remotely right and they're going to need a certain level of a minimal level of laptop that's going to be able to, for instance, use

The remote apps like Adobe Creative Cloud. Not to mention, even my or other things. So kind of along that those that line of thinking what would be the minimal level.

**Natalie:** how can we make it the easiest for a student to be able to leave this distance learning situation with marketable skills like what gear. Do we need to provide them.

**Casey:** You know, you could do affinity is as a, as a, if you can't get your hands on Adobe because it's too expensive. You can look at the affinity

For 50 bucks. You can have a license for illustrator. Light for an illustrator program that professionals overhand. It's a \$50 license instead of a very expensive license. So affinity is one of the new new tools are looking at. Blender is a free tool that people use a lot. There's a lot of free software that emulates or is close enough to

What we think of as the professional packages that will get you by because a lot of the professionals are moving away from these lifetime expensive packages, because they have to provide them themselves.

**Amarpal** And every semester I have a growing number of students that just complained bitterly about the corporate strangle that, you know, places like Adobe has on these tools.

**Sophia:** Like providing resources for the students. Right. And I think Photoshop Photoshop and then, by extension, like premiere and after effects would be great for them to have

**Natalie Embrey:** So we're fortunate in a sense because the district actually funds, our ability to do all the Adobe suite. So we do have access to that it's more like our students inability to get a hold of. Anything but a Chromebook through our services and then also like tablets were investing for photo for the retouching and initial shooting classes in these very small with them tablets that are going to be sent me straight to students.

And I'm just curious if that's going to be the best route we could go with animation as well.

**Casey** You know, when we were teaching, we have a funding works with the Los Angeles Academy figurative arts does a lot of our admin for our training and we spent a lot of time talking about cintiqs versus, you know, wacoms

**Sophia:** I mean, I agree with you. I think those fundamental art skills that you're talking about, can be started in school and then it's up to the student to continue learning

Them throughout you know their lifetime. I mean, to me, like college

Is just a great place to learn some of the more to have access to the more technical things that are just really difficult to learn on your own. That's why I think you guys having like

Some courses teaching stuff in unreal. And then the animation and like CG asset building side in Maya are going to be really essential for the students to have like practical skills in the industry.

**Casey** We're having a lot of discussion about diversity and how to engender it and how to make it work and how to inculcated into our culture and I'm having a heck of a time finding effective ways .So if you with the school have resources to help train people about unconscious bias and implementing diversity

**Amarpal** What I can do is kind of put everything together maybe in a Google Doc, and I could share that whole group. There's also all types of free webinars. I have a great letter open letter that was written by the National Arts education.

Group and it has some very specific frameworks and actionable things that we're hoping to utilize within our own department. So I'll put that all together and send that over to us a link

Thank you very much. So guys are invitees Casey Sophia Doug Eric Alexandra joining us. I really, really appreciate this