>> ZINNIA: Good morning, or good afternoon, depending on where you are joining us from and a warm welcome to all. You’ve joined the first technical session for Module Seven: Video Production Basics which will address the basic tools needed to produce videos for your museum. This is the seventh module of the Digital Empowerment Project, a nationwide initiative organized by the six US regional museum associations that is dedicated to providing free self-paced training resources for small museums. This inaugural series of online trainings and resource toolkits focused on digital media and technology topics is made possible by funding from the Institute of Museum and Library Services.

My name is Zinnia Willits and I am the Executive Director of the South Southeastern Museum Conference. My pronouns are she/her, I am a light-skinned white female with shoulder length reddish brown hair. I am wearing black rimmed glasses that are often referred to as cat eye style and today, I’m wearing a black sleeveless sweater sitting in front of the back drop of my home office which consists of a desk and a few computers behind me. As the host for today’s session, I would like to convey a few things to our attendees before we begin the program. In this era of virtual meetings when digital spaces may substitute our physical sense of place, it is important to reflect on the land we each occupy and honor the indigenous people who have called it home. Today I am speaking to you from Charleston, South Carolina, the historical homelands of Natchez-Kusso peoples. Wherever we are, let us acknowledge all indigenous nations as living communities, their elders both past and present as well as future generations. We the Digital Empowerment Team recognize our organizations and members were founded within a colonizing society that perpetuated the exclusions and erasures of many native peoples throughout the US and beyond. We ask you to reflect on the place where you reside and work and to respect the diversity of cultures and experiences that form the richness of our world and our profession. Thank you.

Now for just a few housekeeping notes before we introduce today's presenter and get started. First the best place to view the session in real time is on the Museum Learning Hub website under the Watch Live tab at Museum-hub.org. Here you’ll be able to see all the captioning, chat and other questions. I would like to acknowledge today's American Sign Language interpreter on the left side of your screen and let you know that captioning for today's program will be
embedded in a box just below the YouTube player on our website with controls to adjust your experience.

The best way to continuously refine our programs is to listen to our attendees and we ask that you share your candid feedback with us. Following today's program, you will be sent a link to a satisfaction survey. Sharing your experience through this survey will only take a few minutes and will greatly improve our work. We encourage you to pose questions to our presenter which will be addressed at the end of the program after the presentation. Please type your questions in the chat and a Digital Empowerment Team Member will be gathering them. We will address as many questions as time allows however we may not be able to get to all the questions and others may arise. For this reason we have set up an online community forum for raising questions, posting answers and connecting with your fellow museum practitioners on the Museum Learning Hub website. If you’re looking for help between programs, please visit this forum, create a login and post your questions. A member of the community or one of our Student Technology Fellows will get back to you. Finally, to stay connected and be aware of future programs please follow us on social media. All the links will be posted on the chat throughout the program.

Now it is my pleasure to introduce today's presenter Luke Mehaffie. Luke is the Media Services Coordinator at the North Carolina Museum of Art in Raleigh, North Carolina where he has been on staff since 2014. He’s currently the video producer for the museum and serves as part of the marketing and communications team. As a Raleigh, North Carolina native the museum has always been a place he’s called home, he graduated from East Carolina University with a double concentration in media performance and media production where he met his wife. Four children later Luke is still excited to call the North Carolina Museum of Art his home and glad to grow with and contribute to a museum its offerings. I have enjoyed getting to know Luke and thankful to all of the time he’s devoted to the session. I'm pleased to turn the floor over to Luke Mehaffie to begin our session.

>> LUKE MEHAFFIE: Thank you, Zinnia, I am so excited to be here and to share what I have learned in the video production world. I did want to start off with a sample of one video that we did a couple years ago--and it just gives a broad overview of the North Carolina Museum of Art of which I get to be a part of every day. I think working on this team here as the video producer it really gives me a broad range of people to get to work with. We have an education department, a catering staff, conservators, we have curators. We have just so much that happens here at the museum. And I just thought I would start off this presentation with a quick video to give you sort of a 90-second summary of what we do and then we will dive into the presentation following.
We are the North Carolina Museum of Art, and we are librarians, the marketing team, nature enthusiasts, storytellers, exhibition designers, we are art lovers and caretakers. Special events department, information technology, the registration department, we are writers and editors. Construction supervisors. Art handlers, gallery educators, fundraisers, accessibility advocates, curators, the financial arm of the institution, we are virtual educators, Park staff, conservators, a dining experience, students, volunteers, and we are builders, unique, creative, the face of an institution, here to make the place look good, vibrant, growing and moving, hard-working, resourceful, passionate, cool, we are food and beverage, we are security guards, we are membership, we are housekeepers, we are designers, we are Raleigh’s artful shopping destination, stewards of truth, we are the eyes and ears of the museum, we are guardians of the People’s collection, we are protectors, we are sustainers, we are cultural ambassadors, we are the North Carolina Museum Of Art.

LUKE MEHAFFIE: So, this Museum -- it was started in the 1950s, and moved into this building we are in now, that last scene on the video --in the 1980s --and since then we've expanded and built a whole other building and keep growing and we have about 164 acre-campus we’re kind of on the right on the west side of Raleigh, North Carolina so have a great location. There is a lot of things to do and see, whether you’re coming inside to the museum to see a lot of special exhibitions or whether you’re just enjoying the weather and strolling around the outdoors. We have sculptures, we have programming, we have concerts, we have a movie screen mounted to the outside of our building, so we have a very unique position to serve the community and allow the entire state of North Carolina to enjoy not just artwork but the arts.

So I will keep going in my presentation and I wanted to talk a little bit about one of the programs that we had this past summer. We partnered with PBSNC, and they brought in trucks and vans full of equipment and we did this thing called Music at the Museum. There was probably about seven or eight different musical groups who came in and performed in the Gallery in the West building, and they sounded great, they looked amazing. They were very talented musicians, and it was a neat partnership, so PBSNC what they did was film these but we also pushed a live stream across our YouTube channel so that during the pandemic everybody could enjoy music at the Museum. It was an amazing partnership but I wanted to talk about a lot of the technical parts of what we did.

As you can see from the photo there are numerous cameras and colored lights back in the gallery. There’s tripods and a jib on the left. There’s a team that worked on audio, network engineer, truck drivers, there was a creative and technical director. It was a sight to see, for me being here at the North Carolina Museum of Art is a one man operation I don't have editor, I don’t have a camera crew, I don’t have lighting tech, it is me to do a lot of what we do here. I
do get to recruit help for larger shoots but my job for this was to promote every show so each group would come in and they would do one dress rehearsal and I would film that dress rehearsal and we would upload the video to YouTube and people knew was a promotional video so they could come in and watch the show. They could come and watch the show, they could tune in and watch the live stream the following day so want to short quick example of what I shot so that you can see everybody else's equipment – and then really I thought it would give the viewer who is watching this behind-the-scenes, appreciation for what everybody else is doing as I kind of threaded the needle and came through those two camera guys. I don’t have any audio playing, because I wasn’t sure if I was going to have Charlie Mark’s permission to share this song, he was really good. We wanted to give a good experience in about a 45-second range of what the performance was about and just their style so all of those pieces of equipment really does add up--you can see all the cables and the stands and the ladders and it’s just all over the place. And I said, I don’t know that I need all this, I was going to use one camera, I’m going to get my one shot, I didn’t need to make any cuts and I tried making that the theme throughout each of the videos. Start really wide, just kind of do a creeping in shot, or more kind of moving around the performers so you could get a feel for the entire space. And I used this camera to do all of those videos—DJI Osmo Pocket. And it shoots 4K video, when I looked up the price a month ago or so, it was only $150. I want to reiterate you do not need millions of dollars’ worth of commitment to make something look good and to share what’s happening inside your museum to the world.

I want to start talking about why video? If you are watching this session you probably have recognized probably there’s a benefit for video over just still images but still images are everywhere and if a picture is really a 1000 words then one second of video can contain up to 60 still images in that one frame just to show the motion.

I think there is an understanding of this in most people’s amazement of just entertainment world, there's movies, there's TV. Having something where you can string along the story and understand characters, really just watch something unfold before your eyes with video. That’s why it is really special and it’s been a good tool to see how it resonates in whatever platform we are releasing a video. So before we ever hit record on your camera if you're video person, if you’re looking to hire a video person, if you’re in marketing and you want to start creating more video content you’re really in the right place. We will cover a whole bunch of stuff rapid fire starting now. So the first thing is what is the purpose? What do you want this video to convey? Do you want somebody to click on something after they finish, do you want them to feel a certain way or make a donation, do you want them to just have information? You need to know what the purpose of this video is before you ever hit record. It is also important to know the target audience. If it’s donors, if it’s visitors, if it’s your staff, if it’s a preschool class? We need to know who will be watching the video because that will help you with the second point
which is what is your story? How are we going to get there? The first one was why are we doing this and what is the goal? Where are we going? And the second one: how are we going to get there?

You can usually use a story or some type of creative avenue to get your point across. In the intro video we just watched, we basically used all of our staff’s own voices and we had them in their own words talk to a microphone and we recorded them saying, here is what we believe the museum is. This is what we feel like our role is here, I am not just a housekeeper, but I love to do what I do. I love that I get to work in a place like this.

We are all of these things, so the story really captured itself, these are our staff’s voices telling people what they do. And then the last thing is: What tools you have? Just like a chef has a kitchen full of tools or a mechanic has a garage full of tools, if you are doing video you want to know what resources do I have to get this job done? And I wanted to show you an example.

[Video.

>> LUKE MEHAFFIE: That was one example of tools we had were mascots we wanted to come to our Museum and we knew that we were going to promote March Madness and let these mascots roam around in our Museum, looking at different artwork that had a ram or a wolf or the color blue so the story was let's get them in the museum and they are exploring it and seeing all this stuff for the first time. The resources at we had partnerships with nearby universities said this is a cultural expense for us and the way that we can be at the Museum on the goal was to really just create excitement and to ride the hype wave of March Madness so other tools we will get deeper into when you look at video production is cameras. That can be anything on this list: all-encompassing cameras, it can be just a smart phone if that is all you have, but we’re going to do a deeper dive into types of cameras.

Another component to think about when you are looking at video production gear, is storage. So media. What are you going to record to? Some cameras have an internal storage drive but most you have to put an SD card in, about once or SD card fills up with the data, you have to know where it is going to go after that--is it going to get dumped on a computer and once your computer gets full of video, what are you going to do with it? Are you going to back it to a server or upload it to the cloud? You really need to know, okay, this is one component that is going to need to be considered.
Another thing is just stability. If you have a tripod or a mono pod, something that really just makes your video look smooth and stable and professional, it increases the quality of it instead of just a cell phone and really shaky video. I’m sure you’ve all seen those, that is something to consider -- doing we want to invest in stability for our videos?

Next thing is lights. There’s a bunch of different types of lights you can get. I would work with what you have, if you have work lights, and they’re in your facility’s garage then use the work lights you have. Lighting is one of those underrated components to video and you can make it look dramatic, you can almost tell a story within the lighting portion of a video.

Another thing to consider is power. There are not many things you would be doing outside with no power at all but if you are doing something that requires batteries, you just want to make sure you’re charging batteries, if it’s camera batteries, whether it’s batteries you can take portably to print your lights from or to run your gear from, you just want to make sure that is being thought about.

I would say that audio is probably the most important thing to consider in video production. Mostly because -- I am not sure about Streamyard but Zoom I think will prioritize audio if there’s an interruption in the data or the network gets a blip and it will make sure the audio is still coming through even though the video may have freeze frame and even back in the old days when we had telephones and only telephones, you couldn’t see anybody's face from the camera and it was just listening into audio only and you can get a lot of information across with audio so you really want to make sure that everything is sounding good if you’re doing an interview you want to make sure there's intelligible audio coming through.

The last one -- or there's one more after this – post-production things to consider. Do you have anything to video editing that’s going to happen? Once you get your audio and video, your lighting looks good, it is recording onto a USB card and dumped onto your computer, does anything else need to happen to it before you upload it? Did somebody say a curse word in there that you need to edit out or did somebody trip or mess up? Then we need to put it into the editing room. This can be a full-time person's job all in and of itself, so I would encourage you to look into what video-editing looks like and consists of as well as we will go over some free options at the very end if you do not have the funds to install and download high-quality video editing software.

So one thing that I have had to wrap my brain around is the structure of a shoot. If I have a band coming in or if there's a lot of moving parts and I know that I can’t be everywhere and I
can’t carry all of my stands, I can’t carry all of my cameras, all of my lights, I have to get some help so that means there needs to be workflow: I need to train people and I need to make sure everybody who is going to volunteer or help out or get hired as a contractor for the shoot, I need to make sure they know what they are doing so that is an investment as well. And how you are going to do that, so you really can spend a lot of money accessorizing your gear list and that is what some of these are. The list goes on and on, there’s more to this but if you get into it, you know, the list adds up of things you might need so instead of spending $1 million you can get by in today's world with technology to create content without breaking the bank.

My questions when I was first getting started in the video production world, what camera do I need? What kind of microphones or what kind of lights are best? And what I found was that if I didn’t have somebody telling me oh, you have to use this brand or oh, you have to use this lens, I just found that YouTube was my friend. I would get online and do a search and see what other institutions and people were doing and compare what is working and I got interested in seeing someone use a $200,000 cinema camera right alongside an Apple phone eight or nine, and they would shoot the same videos and you had to pick which was the $200,000 camera and which one was not.

I would just save these three buckets are the big investments that you would want to start off in. Getting a good camera whether it’s a smart phone or not, getting a good microphone and having something to light whatever it is that you’re shooting. So types of cameras, we will go over these, smart phones, camcorders, that is what we started out with here at the museum. We had one Canon Fixia camcorder, it shot full HD and that is pretty much it but it is what we had so it is what we did a lot of stuff with. Cinema cameras, they are meant to have a lot more professional settings and you can add on batteries or export data via an SDI connection, there are a lot of things you can do in a cinema camera to tweak the settings.

Mirrorless cameras are what we've started using a lot and these are not a DSLR, basically if you look at the lens the sensor is right inside. I'm going to try to show you this. If you take the lens off a mirrorless camera, then you can see the sensor is right inside the camera. And we've gone with Panasonic brand just because we wanted to make sure all the colors were staying fairly similar. If we got Canon or Nikon or Black Magic Design, some of those sensors look a little different in the end and the colors can be just a little off. So another type of camera, other types of camera, action cameras like GoPros and drones.

So microphones as we talked about, this is the most important component I would say. If you’re just using your on camera microphone it is may be webcam quality and it’s not going to sound
amazing. But it is something. If you are listening to me right now I am using a Logitech C920 webcam and hopefully you can hear me okay.

But Lav mics are one thing that are really useful. If you have a Lav mic, it is meant to get as close to the source as possible so we usually put these right here on the lapel and that way it is picking up everything coming through and we’re actually using wireless transmission for the audio so we have the microphone which the person will wear and a receiver which goes right next to the camera, so we can make sure all the audio comes straight in. Also invest in a good pair of headphones so you can listen in and make sure what’s being recorded sounds as good as you want it to. Shotgun microphones are another thing or if you need voiceover microphones, you can usually get those fairly cheaply, that's a USB connection to your computer and you have somebody sit at a desk and have good quality audio.

I have also seen these, these are an onboard mixer so that I can plug two separate audio sources into this and then I have level control, so I can dial up one or dial down the other. They are helpful if you need to get more than just one microphone source into your camera recording.

Lights, those can get really expensive if you wanted to spend money on lights. We are not quite there on lights. We usually just do what is the cheapest and closest. So if you have shop lights, like I said those can work and if you have a way to diffuse light I will show you this now I just put a Kleenex over the front of it so it’s not quite as bright, it is a little diffused but those are really ways I would encourage anybody, if you’re doing a shoot, if you have to figure out this is a problem how do we get past this, it’s always helpful to think of different ways. These are traditional methods and strategies and things they’ll teach you in school if you take media production, how are you composing your shot, which things are you putting on the left side of your frame, using the rule of thirds which is dividing the screen into three sections both horizontally and vertically, making sure you white balance your camera so the camera knows that this color is white and that color is always going to be white. Using three-point lighting you have a main, key light on somebody's face and you have a fill light on the other side and then something from behind, that’s like a back light. There’s a lot of things that I think you can use and learn but those rules don’t always apply and so I really would just encourage you to think outside the box.

And I think we have a question that I’ve seen as we’re talking about lighting. Lighting that you probably wouldn’t want to use is fluorescent lighting. They have some called like compact fluorescent lamps or CFL's -- those take a while to heat up, they take a long time to get bright,
you usually need a lot of different bulbs and I've really landed on LEDs just because they can get really bright with using not very much power. Also they don’t get hot so when you finish a shoot you don’t have to wait an hour for the lamp to cool off. If you're using a tungsten or halogen, then those can get really hot because those can get really bright but I really do like using reflectors, so if you have a sun or a bright light then you can bounce, just use the big white board and use that. But like I said, just thinking outside the box, if it’s shooting through a mirror or window or just all the different things. There's a lot of ways that you can be creative. When I first started at the North Carolina Museum of Art I was mainly shooting docent programs and lectures in our auditorium with the camcorder and we were doing stuff in the galleries and just wanted to make sure people understood what was happening. And if there was a training session that our docents missed they wanted that recorded so they could see what they’d missed.

One thing I will briefly go over is we did a dance-off video at the museum and it was kind of embarrassing, all of our staff were dancing around to a Cool and the Gang song called Celebrate, but once people saw that I like to do video stuff, I was getting a little bit more involved with exhibitions and stuff that was going on, on our website. So here is me filming a promotional video that we had a couple of years ago called Rolling Sculptures and these were cars from the 1920s and 30s, it was really kind of interesting because a car wasn’t made to just go sit in a gallery, a car was meant to be driven. It was meant to move. And we really just kind of wanted to show these cars in motion as they were coming off of a truck and getting rolled into the gallery. So with this camera we also had a couple more, I call them FauxPros because they were fake GoPros, I think they were only like $60 or $70 a piece, but they were small enough that we could mount them on the dashboard or on the hood of a car and there wasn’t any danger of them scratching the cars and we shot a video. So yeah, I’m going to let you guys see this, just having one camera that I could handle and a couple of these that we used to do time lapses and I’ll show you guys what we ended up making.

[Video]

>> LUKE MEHAFFIE: Okay so these next few slides we’re going to talk about cell phones in particular. If you had to shoot something like that using a cell phone, it is so much more convenient -- I actually just got a new cell phone personally a few weeks ago. It’s a Samsung Galaxy S9+, and it was $150. It’ll shoot for 4K video, it’ll shoot slow-motion video and I haven’t used it a whole lot yet but I’m hoping to. So if all you have is a cell phone which most of us do in our pocket, then you can make stuff. As you can see this image on the left there's a monitor on the top, a shotgun mic, there’s a rail system, there’s a cage around the camera, a really nice fluid head tripod, this person spent a lot of money putting this video camera together but as I’ve
said, seeing people do side-by-side video on YouTube, examples of hey here’s a beautiful sunset video of it and I really can’t tell the difference. If you put a smart phone on a gimbal, this is one we bought last year, then we’ve also been able to do live video conferencing from our galleries so I put this on top of the monopod and walk around like an extended selfie ticket has three motors in the gimbal that are self-balancing and just like this little camera that we used for the video at the beginning, Music at the Museum, I’ll try to hold this up close to the camera, no matter how light move it holds a shady shot and that’s basically what a gimbal is I can tilted up or down and if you can throw your cell phone into one of these then your video’s going to look smooth. So here is an example of me walking down a hallway holding my new phone as still as I possibly could and putting it in the gimbal and walking the same hallway. It’s there is clear shakiness on the right-hand side and clear smoothness on the left-hand side. So it is one small way to make your videos look a little more professional. If you do have a smart phone and you want to use that you can modify it, you can accessorize it or put a light on there and do it or whatever else you need to.

Next I will talk about basic video production. Chroma keying or using a green screen allows you to separate whatever you are film in front of that, I'm sure you've seen all the special-effects in Hollywood, all these action movies where they separate that. But basically it lets you change the color or change the background of whatever is green. For Rolling Sculpture we shot our curator in front of the green screen and we then we could put moving, public domain, archive video of cars driving around behind her. We could use images of the actual cars that were in the show and it’s just one other way to make your videos a little more engaging.

Another benefit to video is you can stretch out time or you can speed up time. So this was our movie screen getting restored. This was a Yayoi Kusama piece we have in our West building being built and it took a full day but we just watched it in 10 second. It’s a neat way for us to get video content very quickly into the eyes of interested viewers. So we have a video similar to this which shows all of our park art so for people who cannot walk our entire 164 acre campus, cannot really see those we wanted to make sure they had a way to see those if they are here inside, so the time-lapse is just one of those types of benefits that you can get if you have an outdoor project like this one that took months to build. You can show it to somebody. Hey, this is what happens in the past few months but just take 10 or 15 seconds to watch it. Again, I do enjoy watching these because you can just sort of set up time-lapse cameras and let them capture whatever it is and then you go into the editing floor and it’s kind of like fishing. You see what you’ve got. Here is our King Saul getting conservation treatment.

The editing and review process, once you record your videos and you need to dump it into a software editor, speaking of time-lapse, this is a time-lapse of one we did with an altar piece.
There were five different characters on this altar piece and we wanted to make a Zoom, like a pretend Zoom room and let have them have sort of a discussion between themselves, even though they are all on the same panel. And this was just sped up video of what it looked like for me to go in and edit that video.

When you are, when you have the post-production benefit there are a lot of things you can do after the fact. So there is a phrase “fix it in post" which means if you do something wrong or mess up, okay we will just fix it later. So another program that I used to create this time-lapse was a software program called OBS and this stands for Open Broadcast Software. It basically allowed me to do a screen capture at every small change I did in this edit I was able to capture the whole thing.

Open Broadcast Software will also allow you to use your computer as an encoder and then you can push that stream to YouTube or Facebook or whatever. So when we do live video production here at the museum we can use that type in our stream key, we can get everything sent and pushed to the platform of our choice and then using a really nifty tool, this is called Black Magic Design Atem Mini, a four HDMI video switcher. So I put in four different HDMI inputs to the back, usually it is cameras but it can be computer and then I can select which camera I want to send to the main screen or to the program. For example, in this concert we did, with Carolyn Colquitt, a cellist from the North Carolina Symphony and we had Sandra Dubose as our narrator. These might look like still images from the still images but they are in fact, not. They are single cameras we had set up on the stage and you could actually see if I can hover my mouse over here, this is the one camera over the piano that is giving me this shot. So this camera here if you can see that in front of the cello is giving me this shot. And then we had a bunch of other cameras in the back to zoom in and I plugged in another video switcher into my four input HDMI switcher it so that I had seven different cameras and this is a frame grab from each one so I had seven live video feeds that I could just use my switcher and say I want to this camera, this camera, I could do cross fades and tell a story but it wasn’t getting recorded to my computer or my camera’s SD card--it was going straight to YouTube so we had a live audience here in the house of the auditorium but we also had about 100 people watching the concert from the comfort of their own homes.

So this is the sort of bonus level, the end credit scene where you stayed around and you get some of these free resources. So if you ever do decide you want to look into investing in a new phone or you don’t have a camera yet or you have people with smart phones this website I found is really helpful in doing in-depth reviews, what cameras have what specifications, if you wanted to use your camera on your phone professionally, you can look at frame rates or the different settings and they give a bunch of detailed reviews so these resources will be made available in a spreadsheet or in a list somewhere for you.
Video editing, you really can spend a lot of money. Adobe Creative Suite, I’m not sure how much it costs. But you can bypass the cost, Black Magic Design the same company who makes that little four HDMI switcher, they have a free version of what is called Da Vinci Resolve and it’s a professional video editing software. You don’t have to buy anything or you don’t have to register that I know of, you can just go to their website and download it and use it and there's a full range of professional tools to use, color correction if you need to change anything. It is rather amazing that it is free software. Another free software in case they start charging for that one is one called Shotcut, it’s an open source program with not as much overhead and there’s not quite as many advanced features but it is free. And here's a visual of the OBS software to record our streams and to push a stream.

Another one I was able to use some images from my presentation today is called pixabay.com and it lets you search for and download with an account all free open source public domain, no attribution required stills, images, vector graphics and video clips.

Another thing you might need in the future if you are scouting location for a video shoot this is a cell phone app I downloaded called Sun Locator Lite and if I wanted to see where the sun will be at 4 o'clock in November I can go to that location, use my app, use my camera and see where the sun will be positioned, located behind the building that I might not have direct light on my subject during this, if you want to see when the sun sets or comes up. And then this last one is Free Music Archive. So if you want some backtrack or a catchy song or audio to go along with the video you can search for them in your. Some of them do require attribution to the artist but there’s a lot of free stuff in here and YouTube also has an audio library as well and if you have a YouTube account you can go into studio and listen to any kind of MP3s, download those MP3s, use them for your projects with the perpetual license. Some require attribution to the artist but most do not.

Okay well, thank you very much. I’m really happy to share all of my learning and whatever wisdom you might’ve picked up from this. I wanted to thank you for giving me the opportunity to share it and hopefully we will be able to see some of your content as you guys create stuff, thanks.

>> ZINNIA: Sorry, I had to be muted at least once. Just to make it a typical program. That was a really awesome -- all those resources that you just provided, are so helpful. Again, I always like to say that I am the target audience for these webinars, as someone who runs an
association with a very small staff and budget, all these technical, all the technical information that is being provided is so helpful.

We do have a couple questions that have come in from attendees over the course of your talk and one of the first ones that was a little earlier in the session but--can you talk a little more about using paper prototypes to develop storyboards?

>> LUKE MEHAFFIE: Yeah, I think that’s really helpful. If you do not really know what a project needs to be, but you have a team of people who are all giving input and they really want to understand, okay, what is this going to look like, how are we going to frame this? Do we need this type of shot to go along with this part in the script, that can be a big help, just to show this is the footage that I know that I’ve shot with this drone -- let me sketch it on paper quick to give you a feel for what the shot will look like. We’re currently working on one right now that we’re hoping to release later this year and it just shows a broad range of what we have worked on, programs we have run, footprint, the impact we've had as a museum in our community and it’s a 90 second script -- so I am shopping through the script and I am finding that this is a good video clip that I have on my computer that I can put in there. And when you have a whole team of people who are working to make that cohesive and fluid and -- just so that it’s succinct and really tells an impacting narrative, you can use those to draw and sketch it to show people what we are talking about and what will this really look like and if somebody gives you a script that does not have any real clear pictures, then okay, well I don't know what kind of footage are we going to use here. Do we just let somebody talk from showing their face? If it is something that I know that I do not have or have permission -- like if we had our summer camp programs with our kids and wanted to highlight that, if we didn't have summer programs with our kids or didn't get video that we have to be creative and figure out what we are going to use and its place and that is where you can shoot a close up of our kids and zipping up a page in the book or draw -- get a close-up of somebody doing a drawing or glue sticking a collage, there is a way you can portray what’s being said in the content visually where you can connect the dots.

>> ZINNIA: I’m sure that helps with the collaborative process as well, leading up to the video and I guess -- you have a typical timeline or what is the amount of time are we talking weeks, months -- that you prepare to shoot for one of those videos?

>> LUKE MEHAFFIE: If it is a larger, more in-depth -- and I know the quality needs to be well made -- then I usually do give it a little bit longer timeline, probably a month minimum for me to chew and ruminate on what needs -- if I need to get more footage, and then I also want to
build in the review process so if there is a due date of December 1, I'm not going to run into the office and say here is a video on November 30, there needs to be enough back-and-forth well this is good and we like this but maybe let's change this around -- so, it is a working relationship.

And I think if I have a lot of stuff that's on my plate -- and that is where it is tricky again, being the only person on staff who is doing this -- it can be challenging working with multiple projects the same time and then they are all due before this major exhibit goes live so I have to manage my time pretty well.

>> ZINNIA: That is why I always ask about the realities of the time that goes into this just to convey what to expect. Here is a question I'm curious to see how you answer, what is the most creative thing you seen done with a green screen?

>> LUKE MEHAFFIE: I don't know. I think that I have seen...that's a good question. I think -- I am not a huge fan of green screens even though I gave some information on them. If you have a way for people to see videos behind you but what the talking head just like Streamyard it allows picture in picture or side by side and that works in most people nowadays are used to seeing the side-by-side frame. But if you have something that allows the subject to interact with it -- having something moved or throwing stuff out of a drawer and there's a green screen person during this and you want to put in an animated character or something. I expect that as a benefit and I haven't watched someone do that. I've only been the ticketholder in the blockbuster movie I like how did they do that and then you go and watch and it's cool.

One thing that I thought was amazing was in Star Trek and where there is a scene where they are skydiving and they are plummeting towards Earth and all they did to film that was stood on a mirror and they showed, so they showed pictures of them the ground pointed out in all this wind in their face but they really just stood on a mirror and blew wind down onto them so it looked like sky was behind them.

>> ZINNIA: Tips and tricks, that is exactly why we do these, to pull back the curtain. Here is one that comments on lighting, glass enclosed objects. Like in a vitrine, in the museum to remove the glare. Same question, ring lights, are they really that useful?
LUKE MEHAFFIE: Yeah, we have vitrines, just like my glasses if I can get them reflecting, you -- it is a speed bump for sure. One thing -- I haven't done this yet because I don't have the drapery and the black and the curtains to hide behind but our photography department does –I will make a black wall on the camera side of the vitrine and then they will shoot it that way, and there is no light, from the reflection there, there's no light coming through, everything is just blacked out. If you have to do that, that is an option.

I have done a couple of videos where I will edit it together and I will notice wait there is me and my hand in my camera. And you really have to think about that and if all you have is a little tiny LCD screen you cannot really tell how big that is showing up in frame.

So it is fixing it in post, is the thing that I usually do but if I am shooting a vitrine and getting it from the three-quarter angle, and not directly head on, it is usually the light diffraction --or shooting through the glass to get what is inside the vitrine, but not necessarily everything else, might light stands or somebody else's footprint. The other thing about ring lights, I do not have one and I've never used one, I've only seen them kind of the same way that my glasses are reflecting light, I can see the ring lights reflected off things that are in the frame that have a reflective surface.

If you are shooting on a smaller scale in a white box, and it needs to look good, maybe like some macro photography or videography, you really need to zoom in and get some details I guess they're okay but I just think, even the, there are some lights that, well this is not one of them but this is an aperture light and it has something on the front where you can put different gels and colors and make your light diffused or whatever. And it's also waterproof so I could submerge this in water if I wanted to. I will turn it on but a lot of LEDs now they have a whole row, it is a square and they have all these different rows of lights and it just does not have a natural look in my opinion when you are looking at those lighting a subject because it is sort of all these miniature shadows, you can tell even streetlights, the LED is a whole bunch of shadows in there. I can notice that, some people don’t notice it but it just does not look natural. So the ring light I have felt it is the same sort of thing where it doesn't look great, it doesn't look bad if that's all you have, I know you can get some inexpensively so I am not against them but I just do not prefer them.

ZINNIA: We actually have a few more questions but we’ve run out of time. So I think what I will do with those questions is repost them in the forum that will be on the Museum Learning Hub website and I can help entice you to help answer some of those questions but thank you so much, Luke are doing this for us and there’s a lot of really great information in today's session so now I just want to close us out with a few final reminders for all of those, if you enjoyed this program then please do us a favor and share it with your network and we look forward to your participation and would like to see you in the chat in future programs and after each module all
four videos will be available on our website as well as a complete toolkit of resources provided by our presenters so stay tuned to the Museum-hub.org website for more information and upcoming events. And finally, I would like to remind everybody to please join us next Thursday, October 21 for the second technical training workshop for Module Seven which will focus on video planning and distribution. The session will be taught by Alayna Valentine who is the CEO and cofounder of Skill Scout in Chicago and will cover planning for video production including the use of production templates as well as the different platforms used to distribute videos. I’ve enjoyed being today’s host, I look forward to seeing you all next week, and thank you all for attending today’s session and have a terrific day. Goodbye.