IDEAS Proposal Workshop

January 28, 2016
31 minutes, 01 seconds

Speakers: Shahrokh Yadegari, Trish Stone, Grady Kestler

Transcribed by: Carla Altomare

IDEAS Performance Series
UC San Diego Library Digital Collections
https://library.ucsd.edu/dc/object/bb62142825

Time	Transcription
0:05	[IDEAS / INITIATIVE FOR DIGITAL EXPLORATION OF ARTS + SCIENCES]

0:06   Shahrokh Yadegari: [Laughs]. It's great to see so many familiar faces, but I know some of the faces perhaps have not been in here, is that true? [Nods]. Right, so I'm happy to see you all here. My name is Shahrokh Yadegari. I'm the director of the Initiative for Digital Exploration of Arts and Sciences at the California Institute of Telecommunication and Information Technology, that's a -- a mouthful [laughs]. Also known as Qualcomm Institute. Initiative, ideas, it's really a context. And when I say context, it's a con-- it's a space, it doesn't necessarily have an agenda. It's a space for all of you to come and be involved in it.

0:10   [Shahrokh Yadegari / Director, Initiative for Digital Exploration of Arts and Sciences]

0:52   Shahrokh Yadegari: What we'd like to do is to foster, develop, and present interdisciplinary and experimental approaches to art, especially those that involve technology. There is a whole lot of technology here, especially a lot of visual instruments that are hard to find anywhere else. And, there is a history behind this; I'm not going to go through it but I know many of you know about it, there's about forty years of history of electronic arts, both in music and visual arts, and to some degree in theatre, that has happened at UCSD and Calit2 follows that footsteps in bringing arts and sciences together. Again, I kind of emphasize the interdisciplinary side because we would like to do things that are not possible to do anywhere else on campus. There are a lot of facilities, and every department has their own facilities, but we hope to find space here for a conversation to happen between artists, between artists and engineers, technologists, and hopefully humanists as well.

2:04   Shahrokh Yadegari: Every time a piece happens here, there's a lot of people who actually put a considerable amount of work on it, and I'm glad to see some of you who've been here before and have done pieces here and they know what goes into it. This workshop today, the idea of it, is we have a conversation with you to know what the grant provides and what it doesn't provide. These spaces are not necessarily regular production spaces. There are a lot of peculiarities to them, both to the spaces, to the way they work, also to the technology. So what -- the way it will happen today we'll watch some videos, there are some 4k videos and some 8k videos, saying that there is a projector is an 8k projector which has sixteen times the resolution of regular HD. First we'll watch some 4k videos then we'll watch some 8k videos and then we'll go to the other room, this way you'll see both spaces, the auditorium and the theater. There's a bit of confusion, why do you have an auditorium and a theater, historical naming, but all of those are available on the website if you go and you're interested in doing a piece, you'd go to the website and that's something that Trish Stone will be explaining to you. And as I

said, there's lots of people who do a lot of work to make the pieces that you would like to realize possible here.

3:36   Shahrokh Yadegari: Trish Stone, standing right there, who will come and talk to you, is the coordinator of IDEAS, and you see Hector Baracha who's the technical director of Calit2, you want to do something here? He's the man to tell you if it's possible or if it's not possible, you have to pass it through him. And, at the end, we'll also show you MUGIC: MUGIC stands for Multi-User Graphics with Interactive Control. As I said, there are a lot of advanced technologies, visual technologies available here, but they're not as simple as connecting your laptop to them. They're special software that's been written for putting images up, or 3-D images that create virtual reality, which in order to use them you need to work with specific software. We've developed a protocol that makes it very easy for you to use your own software, such as PD [Pure Data], Max, Isadora, TouchDesigner, or any other kind of software that you're familiar on your own laptop, to interface with these visual technologies, and you'll see a very short tutorial - it's not really a tutorial - it's an introduction that Grady Kestler, who is the graduate student -- sound design graduate student in the theater department, will show you. So, I'm gonna hand it to Trish to show you some videos, and from then on tell you about the spaces, and the proposal process. At the end, please ask any questions, we'd really like to have your involvement, any questions that comes to my mind -- uh to your mind, don't be shy to ask it because probably the next person next to you has the same question and we'd like the conversation. Thank you.

5:26   Trish Stone: So, one way to think about the spaces here are as stages, or as places to perform, or as places for screenings, and these are all possible and one of the spaces you can use is this one the auditorium.

5:27   [Trish Stone / Coordinator, Initiative for Digital Exploration of Arts and Sciences]

5:40   Trish Stone: And I do want to mention that sometimes here at Calit2, we get so consumed with resolution that people forget that you need to have an idea in the first place, that your piece needs to have its own merits in whatever field you're coming from. And so, that's just something to remember; you can come use the technology, but at the end of the day, we want you guys to be able to make your own work, show your own work.

6:05   Trish Stone: And I know, one thing people might be interested to know is if they wanna make an 8K Film, what are they gonna have to go through in order to actually get it to play back. And so, just to let you know, the workflow in this was pretty much all Creative Cloud, so editing in Premiere, effects in After Effects, Sound and Pro Tools, then final export was just out of Premiere and HG-65. So this is all stuff you can do with the resources you have, if you want to. And then, just remember to give yourself, like, a good six months before you actually wanna

see it, [laughs], cause that's what it took for me. But we finally got it to show, tonight was the premiere, so it's exciting. [Audience claps].

6:57   Trish Stone: So, Shahrokh wanted me just to show the website quickly. This is "ideas.ucsd.edu". So, I hope that everyone in here either writes their own proposal or joins forces with someone else who's writing a proposal. You can request to use this space or the theater or the cave, and there's a couple more spaces down the hall: RML [Recombinant Media Labs] and Performative Computing. And you can have the space for one day or you can have it for up to five days, depending on what you need. And there'll be amazing documentary services: so we record with photos and videos all the shows and you get some limited support from our AV team and you get some coordination support from me. So, that's pretty much how it works. From here, we're just going to head on into the theater, and at 6 they're gonna open up the reception so if you wanna have snacks or drinks that's fine. Thanks. So just follow me. [Audience claps].

8:09   Trish Stone: I think Shahrokh wanted me to tell you a little bit about the wall and how it gets used. In a nutshell, these are H -- HD screens and there are 4x8, thirty-two of them. So, we have the ability to show really high resolution data if you have it and it can also show really low resolution data. Sometimes, you just want a lot of that, which is fine, these are all just decisions you can make. And, just to the side here, there's three computers that we mainly use to run demos on and you can load up your work. This one is working on MediaCommons, so that's software that was developed by the research team here. It's also known as CGLX, and it basically plays really nice high resolution stills, and it can also play - you see these videos here - it can also show web. I'm just gonna blow this up so you can see it.

8:17   [The Calit2 Theater is a multipurpose room and 'Black Box' space available for research, exhibitions or events. It is a 2-story, reconfigurable space with reconfigurable risers and movable seating for up to 90 people.]

9:20   Trish Stone: But the idea is that it's highly interactive software. And, it's not super easy to use, but it's possible to use it once you get the hang of it. So I would say if you wanna show your work in here, just give yourself, you know, an extra day, and I can show you how to load up your imagery and play it. Let me find an image here, just to show you. So this is how it works, you end up just dragging and dropping whatever you want. All these little videos that you're watching are from performances that were done in 2013, and here's a little video. He's actually -- he's using MUGIC, isn't he? So, MUGIC is another platform that you can use, Grady actually knows more about that one than I do. CalVR is a platform that was developed here. If you can find the researchers who built that, you can use it. Also, Sage is here. This was developed in Chicago, it's really more intended for video conferencing, like in between institutions that also have Sage. So, if you happen to

know someone, say EVL [Electronic Visualization Laboratory] in Chicago and you wanna do something with them, you can use that software too.

10:57   Trish Stone: And all, all these tools that I'm showing you, luckily originated somewhere, somebody built them and you can usually track down the person you need to talk to about them.

11:15   [indistinct whispering]

11:16   Trish Stone: Ya. Umm let's see here. I'm not sure how big these are. Let's see. [indistinct crosstalk] One of the other ones. Okay.

11:40   Trish Stone: So we show these a lot in demos, because people want to see the examples of their research projects. So, I'll just load these up really quickly. It doesn't take that long. One thing I should warn you about is that since all of the software that we're using is in development, and the hardware is also in the process of being developed, it can crash pretty much at any moment, or it can get updated pretty much any day. So, while, you know, we try to count on things working as much as possible, you always kind of have to have a plan B. But that's something I find that artists are used to sort of working around and getting through, and sometimes it just means warning people. So, like, what I'm doing now is if it crashes that's just the way things go and then we'll restart it.

12:37   Trish Stone: So, ya, these are a lot of really high resolution images and, let's see, one good example would be this beautiful one here. It's a deep field image: ten thousand galaxies. We can also show you *Time Magazine's*, this is from Software Studies Initiative, all the *Time Magazine* covers ever published. They were collected on -- from the web, and then shown here. And then, I think my website is still working, so this is just to give you an idea - you see how that's upside down - there we go. So, this once again, is our IDEAS website. So, a lot of people just wanna make their work on their laptop, right? And then show it as big as possible, which is something you can totally do. I'm running a laptop right here, and I'm just streaming it to the wall.

13:46   Trish Stone: So, as long as the networks are live, I can show things. So this is just a little [unclear], but then I have to remember that I'm using my laptop, so say this is a PowerPoint, you can control it from here you just gotta remember what to click on in order to move around. And if you wanna see examples of past performances, we've got photos and videos up on our website, as well as a map. So, that should help you out. Anything else? Okay. And Grady's gonna take over and Shahrokh is gonna answer some questions, and we'll have the caves up and running, so for those of you who are interested in 3D work, that'll be next door.

14:37   Shahrokh Yadegari: Thank you. Thank you Trish. So, as Trish said, this is Media Commons. There are two ways, generally, to put images up. If you've got your

images or videos done, as high-res, this is a 64 megapixel screen, and it can show, it can display something that big, but it cannot come simply from your computer. You can prepare that, put it on one of the machines and put it back here. One thing we'd like to talk -- talk about is that if you wanna do a piece, there's tons of things to do, you really need one thing. Like, you may need one, two images that will go here, and then the content is what's important. So, we hope that what we do today will inspire you, or will bring questions for you to do something. The other way you can interact with this, this is what we're talking about, the MUGIC protocol, is the system called CalVR, it's a completely different system. It doesn't handle video, but it handles graphics, and what you here is this program called MUGIC Viewer, that can actually download - right now the website is - my website: Yadegari.org/MUGIC - but, soon will have MUGIC.info set up, that you can download that. So, you can download this and you can experience this on your own laptop. On Macintosh -- currently available for a Macintosh.

16:07   Shahrokh Yadegari: So you can develop your graphics there, and the graphics can be animated, and then you bring it here and you'll see those graphics here. And, again, the idea is that you develop your piece without the difficulty with technology, but this technology will be available for you to translate it, but you'll have to give the time for that translation. And Grady is gonna go through, very quickly, about something that we've built together that you will see actually on the cave. The thing is that what you build here will work on other CalVRs that are 3D. After we're done here, we can go see the demos, the 3D demos, that installation, the 3D demos, the wall, the cave itself is really fantastic, it's a great tool -- toy to play with. I'm gonna hand it to Grady, and then after that's done we'll spend some time before we go see the demos for question and answers, we'd like to -- if you have any questions, again, about the proposal process, we have now until February 15th, February 15th is the deadline, any questions please write to us, on that website, or emails, I -- my own email is also sdy@ucsd.edu -- I'm happy to answer any questions that you may have for your proposals. So, I hand it to Grady.

17:29   Grady Kestler: I'm gonna go without the mic, if that's okay? Okay, I'll talk into the microphone then, sorry. Okay, so, sorry. Alright, so, pretty much, the idea with this it's a very simple scripting language. So, to start off we would say: hey let's make a circle. So you type "circle" - I'm typing on this screen if you can't see - and you give it a certain radius and it generates a circle. Now, graphics has a lot of complicated things, so one of the things we've decided to do is also program in lighting. So, if you wanna type a light and assign it a number, and a value or a position in space, so now we have a light there.

17:57   [Grady Kestler / MFA Student, in Theater and Dance, Sound Design, UC San Diego]

18:33   [circle c radius = 100] [light l1 num=0 y= -1000]

18:33   Grady Kestler: The lights also have a radius, so, I mean, this isn't gonna be, oops, so there's a light. There's a light radius. So this isn't gonna be a difficult tutorial, I'm just giving you the simplicity of this is what it can and can't do.

18:35   [l1.radius=100]

18:36   [l1.radius=0]

18:47   Grady Kestler: You can pretty much control things however you want, so you can increase the size, make them really big, you can shrink them, or if you want you can animate things and assign it to a value based on a timer that we have implemented. So this is going to make it shrink and grow based on the timer.

19:24   Grady Kestler: So, what you might be able to do, or what you wouldn't be able to do, right now you're looking at a circle thinking okay that's cool but so what? [Laughs]. So, if we take the circle away and now you're thinking well let's make something better or bigger, what you can do is write a script, so I have test scripts here, that it's literally just - if you can see this - it's about nine to ten lines of code. And you're just saying make these things and they're gonna be the planets. So, if I load this into MUGIC, we can see that we now just have all the planets, and they're rotating around the center point, which is zero. If we want to fix the lighting, we kinda fix it there, but this gives you an idea of -- that was this much, if you came in here and wanted to put this up on a on CalVR, you'd have to program in C or C++ and have vast history of programming experience to be able to build something like this simply - simple. So, this gives an example of what is possible with the shapes that we've implemented and added to MUGIC.

21:00   Grady Kestler: The other part that we have is it communicates with other programs. So, if any of you recognize this program, this is Pure Data, developed by Miller Puckette in the Music Department. And, all I'm gonna be doing is sending a message to create circles, but instead of creating the ten planets, I'm gonna create ten thousand random stars in random positions, and it's gonna take a little bit of time to generate, but you'll get the sense. And so, with this you're able to bring in your own computer, you're able to build something at home, bring it in, you can make it interactive. An old sound designer, Andy Muehlhausen, created video games, lots of video games, using a Kinect to control certain objects and swarms and particles from MUGIC that he would generate. So, it's absolutely a possibility. There's Mars. But, so, [laughs], and then what's -- what's beautiful is we can take this and the same script that I'm running here, after this is done I'm gonna set it up in the 3D space, and in that space you have a cave with two projectors on each screen so it creates a 3D environment and you'll be able to fly around with a little controller and it took, again, about ten lines of script.

22:31   Grady Kestler: So, we will have documentation on the website, also with the commands, and what to run, and how to run it, and how to control it. So, yeah, I think that's it. [Audience claps].

22:54   Shahrokh Yadegari: One thing - I should talk on the microphone - one thing this shows is that you can use this to also animate images, this is currently a sphere that has a texture that's been mapped onto it. So, you could have a square, you could have a circle, add a texture to it that's your image and then animate it based on a performance, or based on a control. So, I wanna switch for a few minutes to ask to see if you have any questions about the process, if there's anything that we can provide you. I'm really glad to see so many people here and that one of the points of IDEAS is to create a community. To create people that can talk to each other and that's where the magic actually happens. A number of you have been in the Crossing Boundaries class, that class is also something that doesn't have an agenda, we just get together, we as the professors watch, the magic happens among the students. Any questions? Yes.

23:58   [Audience member asks a question]

24:01   Shahrokh Yadegari: This doesn't handle video, this is, this one doesn't handle video. I wish it did and hopefully soon it will, but currently, it's only graphics and images that can map onto the specific shapes.

24:14   [Audience member asks a question]

24:18   Shahrokh Yadegari: That's the Media Commons. That's -- there are two different systems to interface with this wall. One is Media Commons, which you can have videos that have been developed already at whatever resolution they are, and we can have one streaming from a laptop, and the laptop is at its own resolution, I believe it's an HD or 1024 resolution, but then you can blow it up as big as you want. That's the Media Commons system, and that's one thing to understand about the idiosyncrasies of new software and hardware, and this place is all about that. Now, this is what we've got, later, the other new technologies that come, they -- because they're new and because they're home developed, they have idiosyncrasies that you need to understand in order to work with them. Any other questions? Yes.

25:13   Audience Member: [Unclear] the sound design, the sound system that you have here?

25:17   Shahrokh Yadegari: Thank you for that -- I come from music and I forgot about talking about sound and music. This space has an 8 channel, it -- Meyer's Sounds, and you can ask for the mixer to be here, and there are also a number of speakers up there which you can have access to, those are MM-4s, they're Meyers Systems. The sound system in the auditorium is a 24 channel? Did Hector leave? I

think it's a 24 channel Meyers Sound System, all surrounds, so it's a little simpler here but these are UPJs systems, you have discreet access to them, same as in the auditorium. And, Performative Computing, if you go on the website, Performative Computing is a more experimental space for perhaps a longer residency there if you want to develop something, they're very basic lighting there, but it's just a space to try things. You can also break your proposal into different parts, and that's the wise thing to do. Ask maybe -- perhaps you ask for 3, 4, days and then you use one day earlier on to come in here, try things, understand what it is, come back a month later, understand how your piece is developed versus, and then use two days to get ready and present your piece. Your piece will get quite a bit of communication. They'll -- there's a communication department who will really spend a lot of time in writing the press releases, developing the program notes. So, it's -- there's a lot of support, it's just you have to understand what is available here. Any other questions we can answer? Great so, well really? No questions? So we're gonna go and there's food, beverages, I hope there'll be a lot of conversation among you. But there is quite a number of examples in the cave, those are pretty exciting, but we have to take turns of people seeing them, the cave can handle 2 or 3 people at a time. And thanks again for being here, I hope to hear from many of you about the proposals. Thank you. [Audience claps].

27:51   [Indistinct talking/mingling]

27:52   [The immersive Visualization Lab (IVL) is home to a number of advanced virtual-reality devices, some of them still in development. The StarCAVE 360-degree, virtual reality environment is the principal system of potential use by artists seeking to showcase 3D VR multimedia. The room operates at a combined resolution of over 68 million pixels, 34 million per eye, distributed over 15 rear-projected walls and two floor screens.]

27:56   Trish Stone: [unclear] So this is a project where we used panoramic photography in stereo. And then the students took all the photographs and then altered it. This is the same photo, but this time they wanted giant forks and chopsticks. It's kind of an experiment in surrealism, I think. So they mashed some of the gallery that we looked at earlier with our figures, our silhouettes, and then these giant tools. And this was all from Ricardo Dominguez's class.

28:38   Speaker 1: Basically you can move wherever.

28:41   Speaker 2: And you're saying this is one picture?

28:43   Speaker 1: A series of pictures stitched together into one giant kind of thing. The reason why there's like a -- kinda like -- circle over there is that's where the camera was. So it just like slowly rotates and takes all these pictures.

29:00   Speaker 2: Oh, that's interesting

29:03   Speaker 1: And then [crosstalk] you're like underneath the [unclear], I guess.

29:05   Speaker 3: Woah, too much, sorry.

29:13   Speaker 1: And then you can just like, push forward with the control. There we go.

29:15   Speaker 3: Oh. Okay.

29:16   Speaker 1: Yeah. But yeah the control isn't like super sensitive.

29:25   Speaker 3: [unclear] lag.

29:29   Speaker 1: If you step back a bit because of the cameras [unclear]. Yeah, there we go. And then it should be easier if you just move down. Yeah it takes some time.

29:49   Speaker 2: So you're saying hold down three?

29:50   Speaker 1: And then it goes back and forwards, if you want to. And you just like basically walk. Yeah.

29:54   Speaker 2: Oh wow.

29:56   Speaker 2: Okay. And then how do I back up? It's still…

30:00   Speaker 1: You can just walk back if you want, while pointing up. Let me make sure. Well, I hope it didn't glitch. Sorry it's been pretty hot, so I'm not sure if it's been on all day. I mean, you can turn sideways and move forward.

30:19   Speaker 2: Oh, I see. It goes really fast though.

30:21   Speaker 1: Yeah. Point down a little bit. There we go.

30:34   Speaker 2: Oh, okay.

30:40   Speaker 1: And I think there's like a certain limit in what the cameras, since the camera is reading from right here. So these two infrared cameras.

30:52   Speaker 2: What are they reading? Oh wow.

30:56   Speaker 1: So right now, they're just reading the like, visual information and then they're just basically pixelating it.