The Future History of Public Art
Symposium Proceedings

The 2017 Symposium of the Western States Arts Federation
November 5-7, 2017
Honolulu, Hawai‘i

Symposium Director
Lori Goldstein

Symposium Advisors
Jack Becker
Karen Ewald
Jonathan Johnson
Jen Krava
Anthony Radich
Theresa Sweetland

Proceedings Editors
Lori Goldstein
Laurel Sherman

Contributing Editors
Sonja K. Foss
Lori Goldstein

Cover Design
Lori Goldstein

Rainbows by Shige Yamada. Bronze. 1998. 11’6” x 4’ x 2’6” / 7’6”. University of Hawai‘i at Manoa, Stan Sheriff Center. Photo Courtesy: Hawai‘i State Foundation on Culture and the Arts.

For permission requests, please contact WESTAF (the Western States Arts Federation) at the address below:
The Future of Technological Advancements in Public Art

Cameron Cartiere: We will now move to our next set of presenters for the “The Future of Technological Advancements in Public Art” session. We will start with Jen Lewin, an artist from Brooklyn.

Jen Lewin: Hello. I have a studio in Brooklyn, and I originally have a background in architecture. I picked architecture not because I wanted to be an architect but because I couldn't choose between art school and engineering school. I wanted to take fine art classes, but I also wanted to take programming. I, too, am actually from Hawai'i. I grew up on Maui and went to school at Punahoa. I had a really wonderful, beautiful childhood here.

One of the most important things that happened to me was being a part of an experimental program on Maui in a public school there. I was taught to program in 1983. This was a really cool program out of MIT created by a guy named Hal Abelson. It was a language that allowed you to build graphics. At the time, I was an art kid, I was a dance kid, I painted. My mom was a dancer, and I had no interest in science and technology. I learned this language, LOGO, and it changed everything for me. I loved it. It wasn't my teacher specifically, but I immediately saw this as a tool to make art. I became completely infatuated with computing.

I went on from there and spent a lot of time learning software. I wanted to be a hacker, but I also wanted to make art. I spent my life doing one or the other. Eventually, I landed in an art career. This is an example of the kind of work I do now. This is a piece called The Pool that has
traveled all over the world. It's a large, participatory, interactive sculpture. I'll come back to it and talk about how it was built and all the technology behind it.

One thing I want to frame before going through and talking about some of these pieces—because this is important and it's a bit different—is that I make the work. I don't go to an outside engineering company. If I did, they would probably think I was crazy. I might be a little crazy, but I make it all myself. That means it started with me building all the engineering, circuit boards, and thousands of lines of software. I also build the work physically. Know that when you reference and look at these projects.

This is an interesting moment in the time of technology and art. At a certain point in my life, I decided to pick art. I talked a few minutes ago about the fact that I couldn't pick between science and engineering, and I did some merging projects. I was actually part of the original virtual reality (VR) work done in the '90s that no one cared about for the last 10 years, but all of a sudden, everyone cares about it. I had a National Science Foundation grant in the '90s to build a huge VR system, so I built one of the original VR systems and wrote about it. I also worked in Palo Alto for a company that built the ability to book your airline tickets online. People loved me in tech companies because I was one of the few who could write software and talk to the engineers and the design team. I could bridge these two worlds.

However, I felt continuously that I wanted to find a way to connect them. I rather stubbornly hit a point in my life where I thought, "I'm going to do this. I'm going to build the work I've imagined." I went to graduate school at the Tisch School of Arts. I was part of a very small program started by a really amazing woman named Red Burns. I was there at the same time that this other small group of people arrived, and we all had the same point of view. There are some great artists that came out of that program in that moment. One of them is Leo Villareal. He's the most reputable. He did the Bay Light Bridge that you can see when you're in San Francisco. Camille
Utterback and Ben Rubin are others. I think it's interesting that we all came there at the same time. We all wanted to make digital, interactive work that was physical.

*Butterfly* is one of the first pieces I completed during my graduate work. You are looking at work that I hand painted. You’re looking at LEDs and a circuit board. I had to build that circuit board myself. I had to program it. If there are any super nerds here, it's all built in assembly. This process is really intense, as there are a lot of barriers to entry when it comes to the technical side of building a project like this. It was a large robotic butterfly you could dance with. I really like the integration of technology and art showing up in all of my work. Hardware is required behind something like this, so that prompted me to build that.

As I was building this, I started to find other artists building similar work. We talked about the tools and how they could be better. I don't know how many people are familiar with a tool that came out in part of that graduate program at that exact time. This was the result of several professors saying, "We should make this easier for artists. Let's make a small computer that artists can use to build their work." And here it is. This is a fabulous thing. It's $9.95, and it will drive tons of LEDs and sense user input. This thing changed a lot, and it allowed me to be able to make more work and to make it more reasonably than building everything from scratch.
There are still some barriers to entry on this, as you do have to want to learn to code. You do have to want to learn to build a circuit board. However, I have noticed that there are more and more people coming into the art world who have that knowledge base.

I took the work and took this technology and really started to delve into the idea of making participatory, interactive work. Everything that I build has, at its core, the idea that the piece is really nothing unless people are there, so it’s almost like a piece of performance. The pieces always involve a large group of people being able to interact with the work and having an independent interaction where they do something and have a response. They also get to participate in a group activity.

*Chandelier Harp* is a laser harp. You can see the woman in the center is actually passing her hand through a laser beam and making music.

This link includes a video of a permanent laser harp built for a playground in Palo Alto. It’s the center of this playground, and it’s this really wonderful sculpture where you move your body, dance, and make music within the sculpture.
This link includes a video of a permanent piece, funded by the Be the Match Foundation in Minnesota, where it is very, very cold and then very, very hot, which makes permanent electronic sculptures very challenging but, again, collaborative and interactive. A single person by himself or herself can have a minute within the sculpture alongside the idea of that interconnected group.

Flux Chandelier is located in University of Akron in Ohio. This is a video of a young woman who decided to film and create this whole dance piece under this chandelier in a pretty sterile, academic looking space. I was so delighted. It's great! I made this interactive piece, and this came out of it. To me, this is more meaningful than the piece because it's doing what I wanted it to do—changing the space. It's bringing people in, and it's creating this really interesting connection.

The most prolific piece, however, is The Pool. I showed that at the start. I showed The Pool at Google, and they insisted that I make a Google app for a tablet. You can see an image of the app below. I did not really want to do that, but actually, a young man volunteered, and I'm now married to him. So it's very good that that happened. This is a piece that's composed of hundreds of platforms that you can step on and jump on. They light up. You can see lots of examples of this on my website. This piece speaks to this idea of us being connected and wanting to be connected and wanting to find ways to participate. I've looked at some of the

Figure 14. Flux Chandelier at the University of Akron. Photo: retrieved by Jen Lewin.
ways we've grown and at social networking to see how we're increasing ways to reach out and become part of community. These pieces enable and create that.

The other piece about this that's really interesting is that, in traveling around the world, there's an enormous amount of technology needed just to support that. I can go into bits and pieces of how pieces like this work, but we wouldn't be able to take it to Abu Dhabi if we didn't have nonstop Internet. I couldn't then deal with the entire world’s global infrastructure, which allows a small artist who doesn't really know how to do this to ship on demand worldwide. It is more than just the electronics and the sculpture. It's the whole package that's allowing that to happen.

And lastly, *Aqueous* is the piece that we just finished. We built this in the studio, including all the hardware and electronics. This is another temporary traveling work. We tested it for the very first time a couple of weeks ago at Burning Man. I built it in pieces in the studio and never saw it all together until just this moment. It's actually going to the Botanical Gardens in Los Angeles in three weeks.
Leon Tan: Thanks to WESTAF once again for the invitation. My talk is called “The Potential for Public Art in the Digital Near Future.” I just want to say near future, so we’re not thinking 20 to 30 years ahead.

Over the last two decades, I think it is fair to say that lots of institutions have increasingly adopted a whole bunch of digital technologies to start collecting and analyzing audience and visitor data. It’s also been adopted to extend participation and education initiatives. WESTAF’s Public Art Archive is a brilliant example of precisely that.

The uptake of the digital technology that enables public art projects—at least in institutional programming—has proceeded at a much slower pace. That is attributable perhaps to the difficulty and cost involved in provisioning public spaces with durable and secure digital infrastructures. I think that Jen [Lewin] can probably attest quite well to that, having had to create all of her own hardware.

The widespread adoption of mobile devices and, in particular, those providing Internet access (mobile access exceeded desktop access in 2016), together with the declining cost of large-format digital display technologies, screen and projector technologies, and LEDs change this situation considerably—making possible the emergence of a range of public art projects such as Jen’s but also a number that I’ll talk about very briefly.
Blast Theories’ *I Like Frank* was the world’s first mixed reality game, launched in late 2004, which was delivered on 3G technologies on mobile phones. It was staged in Adelaide in 2004, and players were invited online as well as in the streets of Adelaide to search for an elusive character called Frank. Online players would move through a virtual model of the city on their devices, and in that model, they would search for photos to review locations of hidden objects in the actual city. They would then need to pair up with a player in the street to go off and find that in the offline city. Along the way, they discovered that the creator of the game, *Frank*, once upon a time spent some time in Adelaide, and this game took them in his footsteps.

*Enteractive* was a project by interactive architect and designer duo Electroland, who used LEDs to create a large interactive carpet. The project essentially detected visitors and responded with changing light patterns. The light patterns would also be simultaneously displayed on the exterior of the building in 2006.

*Emotion Forecast* was a 2010 project by the French new media pioneer Maurice Benayoun. He took up the notion of the Internet as a planetary nervous system. Benayoun collected data from the Internet, from across the world (over 3,200 cities); analyzed the proximity of the emotions to specific locations in the city, and, using large-scale displays, forecast emotional tendencies in different locations for the next 48 hours. Alongside that, you could see a ticker tape. There, he’s feeding back data on the stock exchange. So in a sense, he’s inviting members of the public to speculate on the relationship between the psychic or emotional world and the political economy, which we talk about as having “animal spirits”—which are more or less emotions.

*Figure 18. I Like Frank. Photo: Blast Theory.*

*Figure 19. Enteractive. Photo: Electroland LLC.*

---

65
Then we have *School Shooting eMorial* by John Craig Freeman and Greg Ulmer. They are both members of a collective called Manifest.AR, which is a group of artists working with augmented reality. This is an augmented reality work in the open public space west of the U.S. Capitol building on the National Mall in Washington, DC. It was created for smartphone mobile devices and networked tablets. Basically, you point your phone or device, and you start up an augmented reality browser. If you point it in that direction, suddenly you see these bags in the Sandy Hook School, which is, in a sense, an electronic memorial to all the victims of school shootings in the U.S.

Manifest.AR has done similar things by hijacking the Venice Biennial and setting up their own virtual pavilion within Venice. They have also done something similar with MOMA. Using GPS coordinates, they created their own exhibit when inside of the MOMA center.

When we consider the advances in digital technologies in the last two decades, it's very evident that these developments have had a huge impact on practically every aspect of human life. In 2017, there were over two billion users of Facebook and over three billion Internet users worldwide. As the cost of smart devices and data plans goes down, these numbers are simply going to keep going up.

The proliferation of social networking technologies might be expected to mean that individuals in communities are generally becoming more social. In some ways, that's definitely true. However, users of Instagram or Facebook or Twitter, while they are certainly being social, are engaging in a very specific kind of sociality. It's not quite the same as the social arrangement you have in a face-to-face scenario. Research over the last three to four years suggests that we're actually becoming more lonely and more socially isolated rather than less so, despite all of these technologies. Furthermore, some recent research goes further to suggest that those of us who use social media heavily are the ones who are more likely to be lonelier than the rest of the population. Very interesting stuff.
In a way, we are beginning to observe some of the unanticipated effects of individuals in societies living more and more of their lives on the screen. This book *Alone Together* is by Sherry Turkle. Some of you might remember that in 1995, she wrote a seminal book called *Life On the Screen*, in which she had a very optimistic outlook on technologies. This book, published in 2011, is a sea change from that. In a way, she's responding fundamentally to the loneliness and social isolation that have emerged from some of these unanticipated effects of our becoming digital.

As an example, approximately 42.6 million adults over the age of 45 in the United States are estimated to be suffering from chronic loneliness. Ironically, affluent nations have the highest rates of individuals living alone. So Turkle argues in this book that technology promises to let us do anything anywhere with anyone. But it also drains us as we try to do everything everywhere. We begin to feel overwhelmed and depleted by the lives technology makes.

Within the context of this unfolding digital near future, the potential of public art is to broker socially meaningful chance encounters in actual public spaces because this goes some way toward countering a sense of chronic loneliness. But second, and this goes to your point, Maile, it is to slow us down momentarily in the public spaces we inhabit. Projects like the ones I've shown have the potential to do that insofar as they afford or enrich social encounters in real or actual public spaces to a greater or lesser degree. Those that mix or complicate the relationship between our online and offline lives, I would argue, potentially do so to a greater degree, but they come with added complexities.

**Mundano:** I will start with something very primitive. By the end, we'll arrive at technology. I am an artist, activist, and muralist. I have been painting murals for the last 15 years. I always try to put the focus on specific situations.

I am from Brazil. We have a terrible art complex there. Ninety percent of the

*Figure 21. Mural by Mundano. Photo: Mundano.*
population has never been to a museum or an art gallery. That is why public art is so important.

I paint murals related to environmental and social issues such as the drought that we experienced in Brazil. I plant cacti in the largest reservoirs that we have. I try to educate the public about these crises as a muralist and activist.

I am better known for the messages that I put on walls. The collaborative process of painting a mural gives voice to the community and allows people in the community to get their message out. Currently, my main focus is related to homeless people who push trash carts through the city and perform the majority of recycling throughout the world. This is the reason I developed the project *Pimp My Carroça*.

I live in São Paulo, Brazil. It is a really gray and ugly city. It is home to millions of people, and there is a big homeless population there. As a graffiti artist, I am always on the streets, painting and meeting those people. I am always trying to deliver messages that promote less corruption and more housing within the community. Throughout this process, I have had a chance to meet those homeless people. In Brazil, we call them *catadores*. They are the waste pickers. They are recyclers who travel through the city with wooden carts, collecting cardboard and plastic.

Ten years ago, as part of *Pimp My Carroça*, I began painting those carts as a way to give more visibility to them and amplify their voices. The carts read short statements such as, "My cart doesn't pollute." "I have an honest job, how about yours?" "Recycling ideas!" "More transparency on the worker." "Recycle your vote!" "I'm proud to be a catador," etc. I plunged into this universe and have not stopped working since.

![Figure 22. My car does not pollute! Photo: Mundano.](image)
Integrating Technology

I discovered how important this work was in the last 10 years, and I wanted to do something more. This was an important moment in the *Pimp My Carroça* project’s progress because it was at this time that technology became a part of the project. Technology provided a platform to allow the project to be shared widely. The project went viral in a day, with more than 200,000 shares because of the messages on the carts.

“One catadore does more for the environment than our environmental minister.” This was the message posted on social media with an image of one of the painted carts. The social media community agreed with this statement and began to share it. I started to understand the power of public art on the street and how this could be promoted through social media.

I have included a video that shows how the *Pimp My Carroça* project transformed from my solo project into a fully fledged organization. The organization is now really working well, and we are becoming more knowledgeable about ways to spread the message outwards.

The video shows the result of our first action, bringing more visibility to the homeless population and more art to the streets. Now, schools in São Paulo are talking about this homeless problem and the art.
Crowdfunding

We created our own crowdfunding channel. The crowdfunding component makes up the technological part of the project. Working with homeless people is usually something that nobody wants to support. However, the crowdfunding channel has become key to sharing the project with other cities and generating more ideas. I started to travel to different places like Soweto, Lima, Istanbul, Mozambique, and New York.

The project went to many cities and taught me a lot about how art has the power to give visibility and amplify the voices of these people. That was interesting.

*Pimp My Carroça* won the Award for Public Art in Hong Kong. That is when I met Jack Becker, and that is the reason I am here at this symposium.
We created miniatures of the trash carts to raise funds to create the crowdfunding app. More than 250 artists donated their sculptures as well. This was the key component to creating the Cataki app. In a way, it is set up in a similar way to Uber, so that we can invite the catadores to particular areas that need waste picked up. Our map of waste pickers is pictured above.

**A Transition to Permanent Art**

The paintings on the carts are more ephemeral street art. We now want to create something more permanent.

Typical public art sculpture in Brazil looks much like the figure pictured. This particular sculpture is about a genocide that killed Native and indigenous people. The sculptures are often vandalized and become the subject of interventions all the time.

Other public sculptures in Brazil visualize the same thing. Some are beautiful sculptures, but even the beautiful ones are vandalized. These permanent sculptures do not have connections to the street. They do not have meaning. That is why our latest project involves building a permanent monument.

We call the permanent monument project *Invisible Superheroes*, and it is centered on these recyclers. It recently received funding, and it will come to fruition. We gave numerous miniatures and t-shirts to the people who donated. We will have created the first crowdfunded monument in Brazil that will be related to invisible superheroes and not genocide, emperors, and that kind of stuff.
Just coming here to Hawai'i, to this beautiful place, reminds me that we are producing trash every day. This plastic [holding up a plastic bottle of water] is not produced here at all. It travels to Hawai'i by the ocean. We want to preserve the natural beauty here, so I use art to change that. These bottles are worth five cents each. My challenge here in Hawai'i, over the next days, with all the support I'm receiving from Forecast Public Art and the Hawai'i State Foundation on Culture and the Arts, is to try to create opportunities that could raise awareness of the invisible superheroes right here. Thank you very much.

Cameron Cartiere: Thank you, Mundano. Now we're going to move on to our two respondents. Our first is Richard McCoy.

Richard McCoy: Thank you. What an honor it is to respond to three innovative presentations and thoughtful perspectives on advances in technology. I think it was an excellent session that follows up with this notion of democracy and place—a very thoughtful way to do it. So well done, WESTAF.

One of the things that I think is interesting about public space is, of course, that no one owns it. However, in another way, we all own it. This is different from the space that we are in here [the Hawai'i State Art Museum], which is owned probably by us in a certain informal way with the Hawai'ian state or owned by Hawai'ians. Yet, we don't intellectually own it. You program it and you curate the spaces—but we're asking public art to do a different thing.

I think this is where public art is shifting in such a big way because it can take on technological projects like you all discussed. It allows us to not only have a hyperlocal space but also a space that is global and globally connected. I think that, in this way, this idea of democracy shifts a little bit. It shifts that definition of space because, as we know, while the Internet is out there and pervasive, it is not free. Our phones are not free. They can be exclusive, and they can be anti-democratic in this way.

In a sense, it's even more challenging to think about this and then to think about the shift in the way that the digital landscape and the connected landscape cause us to feel and to think about our public spaces. They've become larger and more complex. In many ways, they become more exclusive. Thinking about this in a democratic way, you all have presented something that each
takes on a different kind of perspective and reminds us that we are more connected. That's an important thing. Thank you.

**Paul Farber:** First, I want to thank each of the presenters. You've given us not just an important view on the way technology is utilized in public art but specifics and sight lines on areas that reach out or remind us that technology is not hovering above us but is yet again a system that can connect us and/or divide us.

I'd like to start with Jen. I'm reminded by how powerful it is, as you say, that the work is not complete until people use it. Often, when we think about technology in public spaces, we separate it from the user. This notion that the interface is not living just behind a screen or on the back end but is the moment that you see yourself potentially being a part of that work and participating is very powerful. Just the level of technical mastery—bugs and all—in order to invite people is significant.

Leon, I was taken by the ways that you talk through the permission process. As we talked during the last session, this notion of whether public art needs a process that is municipal or instead happens outside of systems and institutions is important as we think about interventions that dance with that. I'm especially interested in this idea that—in a moment where we are singularly connected across space and time—to think about public art as—and perhaps to echo some of the thoughts from Candy Chang's powerful keynote last night—a “connective tissue” for us.

Finally, Mundano, the way that you remind us of the hidden infrastructure and those invisible heroes of cities stands out. There's quite a vicious legacy around technology and public spaces when we think about surveillance. I think about a particular instance a few years ago where the city of Austin, in order to spread the city’s wireless accessibility, looked to homeless people to be carriers of signals and not participants or producers of knowledge. To see your project as one to remind us of the potential of rethinking infrastructure is quite compelling and inspiring.

I'll just say one final note: Technology and public space are both very inviting and very difficult. It's full of bugs. It's full of problems. It is such a beautiful idea, but I'm reminded of the time I sat on a municipal art panel, and the city of Philadelphia had invested in a system of beautiful illumination in a marquee public space. It has since had to troubleshoot the installation because
the company that built the technology went out of business, and the technology changed. So as we think about issues of stewardship, conservation, and meaning making across time, we need to think about some of the examples we heard today as powerful, engaged moments on technology and public art.

**Discussion**

**Cameron Cartiere:** Thank you both. That's actually a perfect segue because one of the questions I had is around this idea of the challenges with institutions being slow to embrace the technology. Usually, those are the cost and sheer mechanisms and resources that it takes. How also are we grappling with keeping up to date with the technology? You're commissioning a work and, by the very nature of how escalated the processes are now, permanent could be a year or less. We're on to the next technology or some repair needs to happen, but that technology doesn't exist anymore.

I'm thinking of a quite famous public artwork at LAX, which was one of those first major light projects. It wasn't up for very long, and some of the lights burned out. That technology didn't exist anymore, and that piece went dark for almost a year, maybe more, before they could actually afford to redo the technology for a new system of lights that had to go in. So I look to our three presenters in that question of how we grapple with that.

**Jen Lewin:** I think there's a necessity in the building of the artwork to really think that through—and there's experience, honestly. The technology does change, but you can build the work to be very modular and to be adaptable and able to change. That's very possible. A good example is your sprinkler system, which is outside a commercial space. It breaks every single year and has to be fixed because things go wrong. A lot of people understand sprinkler systems. It's not difficult to swap out. There are parts that are replaceable.

With my work, we use specialty LEDs. Those aren't going to exist in a couple years, but I can make sure that when I put LEDs into a project, they use a very standardized plug, and there's a very clear electrical diagram so that, in three years, if another LED or even a different kind of light type needs to be put in, I can assume that most of those lights are going to have a general powering ground. I can make some assumptions to make that easier. A lot of that was learned, in my case. I love this medium [technology], and I want to do this for the rest of my life. For me
to be successful at that, this work needs to survive. That's imperative. I will be honest: So much of my artistic process is in thinking that through.

**Leon Tan:** I have a number of thoughts. First, the main thing I want to say is to advise artists and commissioners not to get carried away with the technology just for the sake of the technology but to really question what the motive of the art project is. I think that if you do that, you'll find that the project itself will have a much longer life. Why is that? It's because if you are focused on the project itself, the technology is secondary. Technology changes, but new technologies can always be brought in to substitute for technologies that have become outdated.

I can give you an example from the French new media pioneer Maurice Benayoun, who was the first in the world to create a truly globally connected art project called *Tunnel Under the Atlantic* in 1995. That was a project that was hosted in the Centre Pompidou in France and a parallel center in Montreal. They created a tunnel that essentially you dig through and eventually encounter someone else through this interface. That was in 1995. The costs for doing that at the time were astounding. However, today the very same idea can be realized with a whole suite of different technologies, but the idea is still the same. That's my advice. Focus on the artistic idea and your community. The technology follows.

**Cameron Cartiere:** I think that, Mundano, your project is really an excellent example of that. It's the technology that you're utilizing, not the project itself.

**Mundano:** I never thought that I'd be building an app for waste pickers as an artist, but it provides a great result. With the app, we are first mapping all of Brazil, and then we will be able to connect artists and people who want to support the waste pickers. We can connect people to create an intervention, but as you [Leon] said, it's not the art itself that has technology, but the process and the crowdfunding mechanism that help us receive funds.

Also, I want to believe in this technological art that there's a lot of experimentation and interaction. Sometimes what is permanent is the experience of the public. I think that sometimes the permanent result of the technology is interaction. All of this technology will continue improving, so it is really interesting to see that.
I have never created anything permanent. Most of my work is ephemeral. The work on the carts lasts like one or two years. Then it's gone. What I'm trying to build as permanent is the legacy for those people with a thousand artists who join. Please help us to keep this legacy running by joining artists who are trying to create something out of it. Or help support us. That's the way I think about technology. We can connect to do something permanent.

Cameron Cartiere: Leon, you had mentioned something about the social connections, those moments of chance encounters that have meaning. I wanted to ask Candy [Chang], because Heather [Aitken] and I, last night after your talk, were discussing people's responses to some of your work and the differences between the comments at the bottom of YouTube and the comments that happen when they're using the confessional. I was curious about how much of that is the requirement that you have to show up. The anonymity is still there, but you physically have to show up to participate. I wonder if you could speak to that a little bit.

Candy Chang: That's interesting. That's something I'm still simmering on, and maybe there's something to that. When we're online, we can hide. You can hide and rage without any consequences and forget the humanity on the other side of your shouting match. Whereas in these public spaces, you are viscerally reminded that there is a human being behind each of these responses. They are mothers, grandfathers, daughters, friends. You see that we're all walking wounded.

Most of the people who participate in these projects are just randomly passing by, so there isn't much effort in showing up, but the physical space can set the tone. The environment and the ritual can encourage people to enter a certain frame of mind. There is this kind of tipping point when a few thoughtful and poignant responses lead to many more. People read these comments, and it stirs their minds to think in similar ways about their own lives, about the things that are really meaningful to them, and there's no fear of judgment. I think that helps to encourage that kind of behavior.

It has been interesting because anonymity often has a bad rap. You think of road rage; you think of all the two-minute hate on Twitter. It's been interesting to think about how it can encourage us to use technology in positive ways. It can help us become vulnerable and honest with one another. It can become a way to find consolation.
Richard McCoy: I think there are great examples of online communities coming together, though. I'm thinking of a friend who runs the project called The Art Assignment, which is a PBS show. My friend Sarah Green and her husband John run a YouTube channel. They've created a community under those comments that's really positive and reinforcing. I think, in another way, all of the comments that are usually involved in the TED Talks series are usually community based and community building, so I think it's interesting to see how some online communities can be as healthy as a physical community or as unhealthy as a physical community. They can mirror. I suppose that has a lot to do with moderation.

What Mundano showed is how you can grow a community around a project. I think of another (almost) public art project—maybe it's debatable—called ArtPrize in Grand Rapids, Michigan. ArtPrize gives out more than half a million dollars, and that's all based on a community coming together. It's based on building an app where an artist selects a venue, and the venue says, "Oh yes, I'd like to show your stuff." It's creating this community with nearly 2,000 artists showing for 20 days. I think the online community or the digital community is just as complex as the physical community.

Cameron Cartiere: I'm curious from our observers, those of you who maybe have projects where you have been grappling with new technologies or perhaps have concerns about not taking that into your programming.

Paul Farber: As a part of the work that we do in Philadelphia, we build prototype monuments with artists, but we also gather data in public spaces about people's ideas around monuments and public art. I would say the first thought that we had during this process was to build a very intricate app on an iPad that would be a toolkit we could use to meet people. I ran it through a committee of our student advisors, saying this will take about five minutes per user. And their response was, "First of all, not five minutes. A one-minute version should work" and, "Have you ever used an iPad outside? It's really uninviting. It'll break. What if it rains?" So, instead, we put the technology on the back end and made the front end of the interface a platform where people could approach us and feel welcomed. We thought about how the public could be a part of a process of ideation.

Something that we've noticed as a part of the idea-submission process is that there is something quite powerful about opening it up digitally. However, I think for many of the reasons
that people have pointed out, the nefariousness of YouTube commenters and the propensity for sexism and racism is high. Since you could read any of the submissions to prototype monuments online and because we really wanted to be a part of the civic data (an open data movement), we tested out the idea that you had to be face to face to hand in your idea. It’s essentially become our troll proofing. Although people have surely been negative and harassed our community on the streets, because of our face-to-face process, their feet don’t stop moving, and they leave the space because they would have the need to answer to their toxic effect. The people who are collecting the prototype proposals are students from diverse backgrounds, including high school and college-aged researchers.

What we found is that we want to think deeply about technology. However, technology has to work in concert with our values as well. Lower the bar for entry at every step, and that means going back and forth between digital sophistication and interpersonal connection.

**Jack Becker:** One of the more revolutionary things that has happened with smartphone apps is that they are now public art tour guides. Technology has made information accessible to audiences onsite—where the art lives. This is a revolutionary thing, providing information about what we know about public art: How it got there and the stories, short videos, and audio recordings that allow you to hear the artists talking about their work. My hope is that it starts to change people’s awareness and understanding and appreciation of public art that they simply would not get if they were left to their own exploration. The questions are things like, “How did this get here?” or “Why is it here?” I know there are several programs out there now, but from an educational standpoint, it’s a big opportunity for the future.

**Jasper Wong:** I’m just wondering how everyone funds their projects. Mundano and I are kind of in the same vein, where we feel like outsiders a lot of the time because we have a very difficult time funding our projects. We look at crowdsourcing and crowdfunding to try to cover the costs of all the work that we want and hope to do and all the people we want to cater to. But I look at a project like yours [Jen’s], and I don’t know how to raise the money for projects like that. It must be a lot of work.

We’re in the same vein because we struggle to do that. That’s why we sometimes have to make our work feel sexier because we’re looking at funding outside of more traditional sources. How am I going to get Microsoft or Monster Energy or this brand to give us money? We have to
make sure that we have strong analytics on Instagram and all social media platforms—that we have X amount of impressions a week.

We sometimes have to alter our goals of what we want to document so we can also find a way to sell the product to different people. I have to sell our festival to the Hawai‘i Tourism Authority and make sure we're bringing in more tourists. Or I have to sell the festival from a marketing perspective to specific brands so they'll give us money to continue doing it. We have to make videos; we have to make data analysis expressions (DAX) and PDFs. We're constantly trying to sell through different methods. I know that a lot of people here are from different institutions; maybe they get funding from the government, but we don't get any of that. I don't know how you raise money for projects. It's so tough for us.

**Jen Lewin:** It's a constant battle in my case. I've been doing this for a long time, and it's changed pretty drastically. Currently, most of my funding comes either from percent for art projects for the permanent works or cities that would like to do a temporary art installation. There are a lot of cities around the world that are looking at their art programs and realizing that they might be able to do something more interesting that's temporary. Right now, most of my clients are actually cities.

But the DAX and the video and the contracts . . . that's a big part of it. I started doing music festivals. I hated that. So for me, it's been this navigation of how you maintain the integrity of the work and figure out corporate clients, which are tricky. They're not good from my perspective, and neither are big *event* events—“Summit Conference wants you to bring your art piece to Summit in LA . . . .” I don't know. It's a mixed bag.

**Cameron Cartiere:** I want to come back to this question that was raised, though. I think it ties into democracy and is actually going to move on to things like evaluation, which is this notion about equity. These technologies are not free. The access to them is not free. Servers are not free. The resources that they take to maintain and upgrade and stay on top of the tweets and then selling yourself and your project. I'm wondering what people’s thoughts are around that. How have you grappled with those questions of equity or even the questions of manageability?
**Mariela Ajras**: I still want to listen to the answer about the funding question. I would like to know what Candy or Mundano has to say. I'm really interested in how to think about that, considering that in my country [Argentina], there is not even the idea of public art programs.

**Jasper Wong**: I've been wanting to do this project in Nepal for a long time, but there's no government funding there. We've applied for grants. We lost a grant in Taiwan to this middle-aged choir group, so we're always fighting for funds and—to be honest—we've been focusing a lot on corporate sponsorship because it becomes almost more reliable. This route is also more of a pain to deal with because they're looking at it from a marketing/PR perspective: What are our analytics? How many impressions are we getting? All this stuff we want to do for the community has to change so that the project sells or looks sexier. It's tough.

**Cameron Cartiere**: Is it that the project has to change or how you're selling it has to change?

**Jasper Wong**: How I sell it.

**Maile Meyer**: I just want to add that I hear medium—technology as a medium. Technology is a message and a tool to deliver a message. So we have three different people applying technology differently. It's really important. I love what Leon said about the context of how you use technology. Mundano, can I just say that the fact that you localized and went out and looked for where the problem is here is very real to me. You did homework, and as a local person, it's important to understand connectivity.

Jasper, you've got 16 POW! WOW!s going. I'm not feeling your pain. I'm sorry. It's scale. Do you really need to do all those POW! WOW!s? I can't believe that you can't figure it out because you've got so much mileage. You have so many sponsors. I just don't think it's an authentic response.

**Jasper Wong**: We don't have enough funds to do all of the projects. A lot of projects that we're working on all over the world involve more local people who have reached out to us for help to do the projects there. We don't get enough funds. I don't pay myself to do these projects at all. A lot of times, we don't pay anyone. We do it out of a place of passion for beautification.
These cities that we work in everywhere or these individual groups contact us because they want to make this happen, but they don't know how. We try our best to help them. A lot of times we tell them not to even call the festival a POW! WOW! project, but then they want to. Cities like Portland and Cleveland called it something else completely, and we supported them by partnering them with our paint sponsors. We help them get free paint, or we fly an artist out. We've had to cancel a bunch of projects this year because we couldn't raise enough funds to make them happen. We're just trying to support these different communities everywhere.

Cameron Cartiere: I hear that. What I also hear, which is interesting, is this notion of one becoming known as an entity. People want the work, and you want to bring the work to your community. Where are we—as creative practitioners—potentially getting in our own way? How can we step aside and allow the methodology that drives the project continue along without our presence?

I know that's something in my own work, Border Free Bees. We planned in our own obsolescence from the beginning. Candy, I know that with Before I Die, people can get the stencil and create their own version, but I'm wondering where you draw the line and say, "This is as much as I can do." I'm wondering what you think.

Candy Chang: All of these discussions are interesting. It would be great if there was some sort of event where all the public artists could come together and compare notes because we never get a chance to do that. Most of us don't have any training. So maybe WESTAF could do that someday?

With Before I Die—and I think with lots of these projects—we're just learning as we go. For a long time, I was trying to figure that out because it was all unexpected when I got inundated with thousands of emails from people who wanted to make a wall with their community. So it took some time for me to develop the resources and to say that this project—what's so great about it, the power of it—is so easy to make. Anybody can make this. So how can I then develop the resources so that anyone can run with it in their own way? That took some time to develop. Now people can buy stencils, or they can make their own. All that stuff is there, including the things we learned along the way. Just making that booklet took some time.
I realize that there could have been one avenue where people would invite me to come and make a wall. I do love making walls with communities and talking more deeply about the project, but it's not necessary. They don't need me in that way, and the project would never have grown to the extent it has. So maybe it's about measuring your goals for a project with its strengths and what's feasible.

**Cameron Cartiere:** I'm going to loop back around to Lauren with my original question about managing or grappling with the technologies.

**Lauren Kennedy:** I was going to speak to digital equity for a second. Memphis is a poor city. Yes, lots of poor people have smartphones and things, but I think a primary use of our libraries at this point is computer time. Many library visitors don't have a computer at home. They don't have wifi at home. They don't even have a land connection.

There's a colleague of mine in Memphis, Linda Steele, who runs a program called ArtUp, which offers fellowship opportunities for both residents and artists to figure out how to lead community-engaged work in their neighborhoods. She pushes paper applications as well as online applications so that people can apply even if they don't have a computer. If they don't really know how to use the program or website or if that's a barrier, she removes that. We were able to partner with her on one application for a program in which we also offered the paper version.

I struggle to think about how we would do that with our traditional percent for art projects because there's so much that is demanded of artists through those projects. I struggle to see how, if you don't have the capacity to use a computer on a regular basis, that would hurt the progress of the work. Again, I'm not presenting any solutions, just asking the question.

**Mundano:** I just want to add something about crowdfunding. Normally you are trying to raise funds. It's important to do that part of the work. The best part of crowdfunding is that you raise the crowd. With that, for example, if we have the money to perform this crazy action, we do it in a public space. It [the government] would say it's impossible to do because we don't have a permit, but when you have the crowd and all the media, you say to the city, “We're going to do it because the crowd wants to do it.” That's the real beauty of crowdfunding. On the other hand, if you only raise money for that, you don't have enough funds to support an organization—such as paying rent or paying the artist, for example. If you don't pay the artist, they are there for 10
days working really hard without receiving payment for this work. I need to eat lunch, but it's so expensive. I need to ask for 250 artists to donate a little sculpture in order to launch the first version of the app.

More interesting is the fact that when I have 250 artists sharing the idea of the app through their social media, the exposure is priceless. This engagement was so important for my organization becoming definitive and to allow the activists to fight for the rights of these people. We want to create much more impact. We need funds, so that's a big challenge to keep working on because we could have much more impact and much more public art if we have more funds and a team connecting all the dots. You spend a lot of time working on crowdfunding. We are the largest crowdfunding site in Brazil. We did 46 crowdfunding campaigns, but the results were more centered on the crowd than the funding.

One more thing I'd like to mention about social media stuff like Instagram, Facebook, etc. is that sometimes artists are creating art for “likes” or followers. That's so stupid and boring. For me, art should be real. Sometimes you may think, “That's a good artist!” because he has 100,000 followers. This component of technology is changing the way people look at good art or critique it, which is scary as we think about how this may continue into the future. Technology is connecting the public to the art more easily, but we are disconnecting from the real art, I think.

**Cameron Cartiere:** I'm mindful of the time, and lunch is coming up soon. We'll have an hour. We'll be starting right at 1:00 with our next group.

I do want to leave you with this thought: How much is enough impact?

**Public Art Stewardship: Methodological Approaches to Impact Studies**

**Lori Goldstein:** We are going to begin the “Public Art Stewardship: Methodological Approaches to Impact Studies” session. We are going to start with Cameron.

**Cameron Cartiere:** This is a very broad topic we're trying to take on. The three presenters are going to take it from three different angles. I mentioned before how I've been a part of a series of public arts conferences, so in a way, I'm a steward of the history that's happening in the making and bridging of some different disciplines. I'm going to talk a bit about the questions of
Center. Meyer is also the executive director of Pu‘uhonua Society, a nonprofit organization that supports Native Hawaiian and Hawai‘i-based artists and cultural practitioners. In addition, she is the owner of Nā Mea Hawai‘i, a community resource and retail purveyors of local goods, fine art, and traditional objects that are made in Hawai‘i. Meyer received a bachelor’s degree from Stanford University and a master’s degree in arts management from the Anderson School of Business at the University of California, Los Angeles.

- **Mundano** is a Brazilian street artist and activist who is the creator of *Pimp My Carroça*, a project that began as a way to raise the visibility of trash collectors throughout São Paulo, Brazil. Now a global, crowdfunded initiative, *Pimp My Carroça* has been embraced throughout the world. As of 2016, more than 700 carts in 42 cities had been painted with the help of many street artists, volunteers, and donors. The project was honored with the International Award for Public Art in May of 2017. Mundano’s work calls attention to social, political, and environmental challenges through art that is often infused with humor. He has engaged in interventions throughout Brazil, and has also been active in Argentina, Austria, Bolivia, Chile, Colombia, Germany, Peru, Russia, South Africa, the United States, and Tanzania.

- **Cynthia Nikitin** is the senior vice president and director of the public art and creative placemaking programs for the Project for Public Spaces in New York City. Nikitin wrote the public art master plan for the city of Atlanta; created a public art gift-review policy for the 1996 Olympics; created public art overlay plans for Congress Street in Tucson, Arizona and public squares across Mobile, Alabama. For the past four years, she has served as director of the Citizens’ Institute on Rural Design, one of the National Endowment for the Arts’ key design leadership initiatives. Nikitin received her master’s degree in arts management and urban planning from New York University and her bachelor’s degree in art history and comparative politics from Clark University in Worcester, Massachusetts.

- **Leon Tan** is an art and culture historian, critic, artist, educator, and registered psychotherapist. He researches and publishes in the areas of contemporary art, public art, globalization, digital culture, social activism, and mental health. Tan is the academic and research leader in creative industries at the Unitec Institute of Technology in
Auckland, New Zealand. He serves as an advisor to artists and arts organizations and is a member of the International Association of Art Critics and the Auckland Council’s Advisory Panel on Art in Public Places. Tan received his doctorate in art history and media studies from the University of Auckland.

- **Jasper Wong** is an artist, illustrator, curator, and art director based in Honolulu. He is the founder and lead director of POW! WOW!, a nonprofit organization of contemporary artists committed to community enrichment through the creation of art-outreach programs, educational programs, and the engagement of the community in the creation and appreciation of art. As a homegrown and independent art festival, POW! WOW! is recognized as one of the premier mural festivals in the world, with bases in Hawa‘i; Japan; Taiwan; Texas; Washington, D.C.; California; and Massachusetts. Wong received his bachelor’s degree in illustration from the California College of the Arts in San Francisco.