Legal Name
Performance Space 122

Project Title

To host Ryan Holsopple at Performance Space 122 to imagine and explore new approaches to demand building for contemporary dance and theater

DDCF Grant Number

2013235

Project Progress and Successes

Performance Space 122 set our sites on building demand for the arts among "Generation C", culturally engaged tastemakers who value creation, curation, content and community through virtual and physically immersive experiences. Through this Exploration Grant, PS122 investigated how we could use an online platform to provide a live performance experience for Generation C audiences who may not be attending live theater. Our challenge was to keep the live experience that is inherent to our work while presenting content that can be shared online to harness the power of social media and draw new audiences for contemporary dance and theater.

To launch the project PS122 worked with artist Ryan Holsopple to develop a digital platform that could provide a live experience online. To beta test the platform Holsopple created the first virtual project, dataPurge a project designed to investigate how PS122 creates a live performance experience digitally. The premise for dataPurge was that it was a service provided to clientele who were seeking to cleanse their data. For 24 hours from 11am January 15 to 11am January 16 clients underwent a "digital dialysis" during a live-streamed review of their data on their phone, computer or social media. "Specialists" reviewed and cleansed client data, helping them to organize or delete personal information from their phones, computers or social media profiles. These Specialists also helped clients remove tracking and advertising from their phones, instructing them on what data was being gathered and transmitted about them to advertisers based on phone settings.

Clients were sourced through the artists' social media and listing services such as Craig's List, University message boards and New Media program listservs, before the live broadcast. Volunteers signed up on the website. One brave person not associated with the project volunteered for a Data Cleanse at the live event. 11 people participated in dataPurge. They were performers, students, journalists, researchers working in new media and artists also working with concepts of privacy and the Internet. Participants were pushing the boundaries of their own privacy issues, their obsession with voyeurism, their ignorance of their digital footprints, their lost memories because of lost data and their desire to remove unwanted information in the "right to be forgotten" cleanse.

These explorations into their digital lives were streamed live as a performance for audiences watching online. Online audiences could ask questions and interact with each other, the Specialists and Clients through a chat feature on our virtual platform. Audiences could also control the camera and the massage chair in which the client was sitting.

dataPurge was the first live exploration of PS122's Virtual Program, and as such we learned a great deal about building such a platform with audience interactivity as its highest priority.

We began by building the infrastructure necessary for such a performance. We sought out the technical aspects for the virtual theater platform, which included extensive research of live streaming engines, Web formatting and the specifications that were needed to create a reliable, sustainable performance backend. This was paired with trial and error over the course of the year, including test broadcasts that were posted for online viewership and interaction. We came to the solution of using Livestream, a Brooklyn based streaming service that data logs a 24-hour performance as well as provides quick tech support and flexibility.

We invested in a camera that had multiple functions and could be utilized by any artist using the platform. The camera is an Axis PTZ network camera. This camera has full control of Pan, Tilt and Zoom of the video image. Through a Web interface provided by the manufacturer, the camera's functionality can be accessed and we supplemented that by adding unique control of the functions from PS122's Website for the beta test performance. This camera has a built in Web server and can be accessed easily through the Internet, with only a few settings that need to be monitored. This flexibility allows for this camera to be used in multiple applications for the platform, through the built in Web server or even ported through to the Livestream streaming server.

This camera was supplemented with a Macintosh computer that was purposed solely for the platform that we are creating. It is a laptop with maximum RAM a very fast hard drive. On the computer we loaded it with multiple applications that can be accessed for use in many networked performance pieces. This package included a licensed copy of Isadora, software that was created for easy video programming and has live functionality. Livestream Producer was also added to the laptop and served as the access point for the Livestream Web Server.

Other hardware devices were purchased for the platform and can be accessed by anyone creating work in the future for this virtual theater space. There was an emphasis on Open Source hardware and software to be used by the platform. These include the Arduino USB micro controller devices and the Open Source Arduino application was included on the platform's laptop. These devices include an Arduino based Networked DMX/RGB LED driver, an Arduino based Networked PLC device (Programmable Logic Controller). These are all devices created with the Arduino Ethernet Library and Ethernet Shield, which give them accessibility to and from the Web and may be controlled by the audience. These networked devices allow for a simpler route to Interactivity featuring call and response, handshaking devices and programmable logic. For dataPurge the PLC device was attached to motors on a vibrating relaxation chair and viewers online controlled the motors via a Web Interface.

The Open Source program Pure Data (Pd) was also loaded on the platform's laptop. This is a free and flexible software that allows you to write carefully plotted patches and applications for cuing, timing and complex interactivity. Audio playback and communication between the Arduino devices and Isadora are also possible with Pd, making it a great control surface for the platform.

A unique domain name for the dataPurge project was purchased. This was attached to PS122's web server and ran with a Wordpress template. This Website was where we added the Chat Room and Live Stream video feed. On the backend of the Website we pushed for a way to make this platform accessible for Interactivity and control via a Web Interface. One

of the interesting elements that encountered was the idea of a queue. In our situation we wanted to create a way for unique visitors to control the movements of the camera. We decided that the control should happen by the audience member solely, so people were not fighting for control, and you wouldn't even know if you were the one controlling the camera. However, if we created a queueing system then people could wait to have 3 minutes of control all to themselves. For this we used Heroku a state of the art cloud platform. This allowed our Web developer to maintain a solid queue system for the Web traffic that we may encounter hosting any performance on the platform. This Web Interactivity can be carried on to the next wave of performances utilizing the platform, it was coded with standard html, css3 and Javascript.

Prior to launch Ryan Holsopple and his team worked together on non-traditional promotion for the project. One example is the utilization of Tinder to promote the online platform. They built a profile and garnered over 3,000 matches within 100 miles of New York City. They utilized "Tinder Moments" to send matches teasers for dataPurge. Moments are swipe-able photos you can instantly share with all of your matches at once. Matches can react by swiping right to "like" or left to "nope" a Moment, just as they would profiles, or they can take it one step further and reply with a message. Tinder Moment can only be seen for 24 hours. The Moments received 400 -- 900 likes each. We sent out 4 moments about an hour apart from each other the day of the performance. The experimental use of Tinder drove traffic to the dataPurge.me and created an audience for the piece outside of the PS122 performance audience.

During the week of January 15-22 4,020 unique users visited datapurge.me with 22,943 total views. Users visitors from 48 countries were on the site during the live show, 24 from Russia, 23 from Chile, 3 from China and 1 from Azerbaijan. The average time on the site was 3 minutes during the 24 hour broadcast. Performance Space 122 shared content on our social media accounts including Instagram (250 followers and 30 likes), Twitter (16 tweets), Vimeo (711 plays) and Facebook (2861 video plays and 77,888 impressions -- video that played in the feed but wasn't clicked on). There were 307 user messages in our chat room. We couldn't count the number of users who interacted with the web cam and massage chair due to the service we used lack of tracking capability, which was a challenge. 59 people attended the live reception component of the event. 22 people filled out our online survey about their social media and networked platform use, how they consume live and online artistic experience.

Challenges / Obstacles / Failures Encountered in the Project

The major challenge was maintaining focus on audience development while also building a platform for presentation and interaction with audiences and presenting a beta test show on the platform.

Over the course of working on the platform, we came across some challenges and areas that can be addressed to improve its functionality. This includes upgrading to a more advanced version of Livestream or finding another provider. The uplink function kept dropping out after a period of time, which should not happen. The result of this was basically the audience had to refresh their Webpage. We would like to eliminate this in the future for the platform. It's ironic that the release of Meerkat and almost simultaneously came just over two months after our project premiered. We know we are working at the forefront of technology being developed right now. Livestream did not meet our needs, but as new technology is being released in this area we have more opportunities now, just three months later, than we did in January. Because if this, we feel that in the next

iteration we will be able to find a new streaming platform more equipped to meet our needs.

A major missed opportunity was not building an automatic way to receive viewers contact information into the platform. We made the decision early on to make the platform as easy to utilize as possible by online audiences. This dictated how it was built and therefore it was built without requiring a log in, which meant we did not capture viewers contact information. We know everything about our viewers that Google Analytics can tell us, but we can't contact them directly with information about our next Virtual performance. We know now how important this is and will find a simple way to accomplish this goal for our next use of the Virtual platform. We need to add more functionality that can receive feedback, mailing lists, twitter feeds, etc.. This is critical to building a repeat audience base for our Virtual program.

What was learned from these that might be of benefit to others?

As stated above, our project is at the forefront of technology. Accumulating data and audience-based interaction on the Web is a growing study. Presenters like us, rely heavily on what our peers are doing and how they are sharing that information. That said, we are happy to share what we learned with our peers. Below you will find thoughts from the artists Ryan Holsopple and our Creative Technology Developer, Alex Reeves:

Networked work spans many different output devices and many kinds of Networks (Internet, Phone, Cellular). It is important to know whom you are trying to reach as an audience and what format is the best way to reach them with.

Maintain a solid Web presence to a potential audience, without annoying them. We used popular means of Social media Interactivity, but the overall user experience may be heightened by keeping current with what is going on currently with the state of mobile media apps. Twitter, Facebook and Instagram are aging and there are many new apps that can be used to attract a fresh audience. In our case we tried Tinder and similar dating apps and forums. I urge artists to look at Meercat, Periscope, Snapchat and similar ephemeral apps as a container for new art.

Make sure the backend of your project can handle the prospective audience load. We did test streams leading up to the show and evaluated the technical assistance provided by our technological hosting agents prior to our live presentation.

Make sure all the interactive technology works and has been tested and has a good way to accumulate data based on the audience interactions. Make sure that you are documenting the work in as many possible formats as you possibly can.

Be aware that it is difficult to overcome a lag in video streaming. Even though the Internet connection where we were performing from had a very fast data rate, it couldn't support a solid stream for the entire 24 hour performance. In some cases the lag was up to 30 seconds, which was not acceptable in terms of audience Interaction. It would be great if there were a way to reduce this lag or adjust parameters so that users still felt they were participating in real time.

We learned that it's important to record local copies of live-streamed performance if possible- the online archived versions were inconsistent file sizes and occasionally when streams crashed, archive files were deleted or not saved.

Links to relevant website(s) and/or project publications, reports, etc.
http://datapurge.me/
http://www.ps122.org/
http://www.ps122.org/coil-2015/
http://www.ps122.org/datapurge-coil/
facebook.com/PS122
twitter.com/PS122
instagram.com/PS122
http://ps122.tv/datapurge-teaser/
http://ps122.tv/

If someone wishes to speak with your organization further about your project, would there be a willing contact? Y/N
If yes, please provide contact name and information for preferred method of contact (email, phone, etc).
Yes. Please contact Jeso O'Neill, Communications & Branding Manager at jeso@ps122.org.