

Final Report

Spring 2005

I PRO 306

Conceptual Design and Planning for a Digital Art Façade at the New Hyde Park Art Center

www.iit.edu/~ipro306s05

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Hyde Park Art Center

Introduction

Our team has gathered to research and develop specifications for a sound and image projection system for displaying large-scale images above the front entrance of the new Hyde Park Art Center facility designed by Doug Garofalo. The new Hyde Park Art Center is now undergoing renovation and is expected to open in January 2006. This report is a summary of our team's processes, results, and suggestions.

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Project Background

Described as the neighborhood's most resilient and progressive institutions, the Hyde Park Art Center mission is to stimulate and sustain the visual arts in Chicago. It is the oldest alternative exhibition space in the City and boasts a long record of education outreach in the community.

In addition to its wide array of art courses that people of all ages can participate in, the Hyde Park Art Center also hosts panel discussions, gallery talks, poetry readings, music performances, open house events, and a series of short pieces by guest writers that expand upon the approaches and ideas presented in each exhibition and engage a broad audience. The Art Center utilizes its diverse exhibitions program and is expecting to attain national recognition for themselves with the new building and façade to be designed by IPRO 306.

To fulfill its mission statement and goals, the Art Center actively pursues arts mentorships within the community by fostering a collective spirit among artists, teachers and students, children and families, collectors, and the general public. The Art Center was founded in 1939 and is now renovating a former University of Chicago building. With IPRO 306 to push the envelope, the Art Center hopes to inspire new loyal supporters with a new beginning.

Purpose

Our goal is to create a nationally recognizable icon capable of displaying artwork, advertising events or classes and integrating an element of human interaction.

The scope of this project is to present a variety of solutions, determining and defining a system required to implement a digital façade for the new Hype Park Art Center. The pioneering icon for the Hyde Park Art Center will engage neighbors and those who pass by, in addition to ideally attracting visitors from all over Chicago and beyond.

The projection area will be the Art Center's signature while serving many exhibition and studio needs by bringing art directly into the view of the community it serves. The idea is that the art created because of this façade will be a signature as well. Because of this, the façade system itself needs to accommodate many different digital art mediums to function as a blank canvas with opportunity for a creative manipulation by artists, visitors, and the Hyde Park Art Center to the full capabilities of the technology.

Research Methodology

Technical Viability:

Technical issues must be recognized and resolve for this project to be successful. Some of the areas which still need attention are how to transfer information from a given control station to the façade and which transmission media to use. Other issues are, but not limited to, computer hardware, application software, methodology of transforming film and slide art to digital

renderings and network connectivity. Expansion possibilities for future growth, in terms of use and technology, must also be taken into account.

The display equipment must be able to meet certain criteria in order to make this project feasible. The equipment must have small dimensions and light weight to enable an ease of management and maintenance. It is imperative for the equipment to possess a high aesthetic quality in order to avoid becoming an eyesore. The angle, distance, sizing capabilities, and resolution must all be considered to determine suitable equipment and its location in the gallery. Egress along the catwalk cannot be disrupted by bulky equipment or cables due to the key role it plays in the gallery's circulation pattern. The projector itself must be able to accept and interpret data transmitted to it over some type of internet connection. All of this needs to meet reliability and cost parameters for the needs of the center as well.

Marketing Feasibility:

While emphasis should be placed on artists needs, without the careful study of sound and projection, the project may be in danger of creating a disturbance for certain portions of the residential area. The buildings that face the east-oriented façade of the Hyde Park Arts Center are comprised of high rise residential structures, making it the most densely populated area in the city of Chicago. Elements generated to compliment the images on the façade such as sound may cause neighborhood interference, but can be avoided if thoroughly researched alongside City of Chicago Ordinances. Such sound could make use of AM or FM radio frequencies, but is only one option of many where possibilities must be researched. The audio's effective distance range should also be taken into consideration, as it will be a deciding factor in the size and orientation of speakers.

The exhibition space should be viewable from both inside and outside, but there are several considerations for other available space. The second level catwalk will remain essential for traveling between two second-story rooms that will also be used as gallery space. The art façade should remain as flush as possible to provide the greatest possibility of interaction in the building. Although the façade will have equal emphasis for viewing locations, enticement needs to happen for the outside.

This project is about how to make art possible from performance art to, installation, digital projection and adhered images, this façade should have the capacity to grow with future progressions of art. There is interest from the Center for the capability to give real-time art class and studio video feeds but to foremost engage the street in a way no other building has done. To do this, the separation between gallery and studio must be broken down.

The Hyde Park Art Center is a community art center that not only specializes in putting on exhibits of art work but also offers art classes and studio spaces. Its mission is to be at the very forefront of the art community with the desire to gain national attention while maintaining a strong link with its community. The digital art façade will continue to emphasize this mission, making its goals a definite reality. Not only will the façade increase artists' ability to present to the general public, but more importantly to innovate through the use of the façade as a media. Interest in the Hyde Park Art Center by community members is a crucial market for the center to sustain operations, but this façade has the possibility to nationally expose Hyde Park Art Center and develop a much larger following. By increasing exposure to the general population by means of viewing possible art and video while passing by, the greatest outcome is to increase opportunities to acquire the public's attention and possible interest.

Long-Term Assessment:

The Art Center has stayed true to the mission of making artists of every kind and the public they display to contemplate contemporary art by fostering creativity. Creating venues and chances to create artwork exclusively at the Hyde Park Art Center should be considered, especially to encourage and incorporate arts that need more exposure such as sound and video installation. The façade to be designed should have multiple uses, included a way of viewing from outdoors even for film screenings since the street-level doors will open out from the building.

This project is an opportunity for a creative project to be explored with an element of practicality, but still full of options. IPRO 306 is challenged to understand the Art Center's uses of a digital art façade that is versatile, innovative, and interactive; withstanding the changes of time. For all unseen animated or still projects created in any format, a gallery must be designed that is capable of transforming into a huge white or black box by intelligently dividing space.

With IPRO 306 an assessment of the projector(s), projection surfaces and the variety of topics included in the following research section will be concluded following the conclusion of Spring 2005 semester. Our team's goal will be to produce approximately three feasible solutions and professionally present them to our Hyde Park Art Center clients. These solutions will be based on factors such as budget or ease of maintenance, for the successful implementation of the digital façade. Other factors we need to consider are how to prepare for the creative uses intended and technology needed. Before concluding, we will analyze and compare implementation costs of possible operating systems and research the prospect of donations from companies as incentive in order to stay within our possible proposals.

Team Organization

Our team has divided the different areas of research into the following categories:

1. Technology
2. Projection Support System
3. Projection Screen
4. Interactivity
5. Art
6. Sound

Each sub-team conducted research in their area and formulated a list of specific questions that pertain to their topic. The sub-teams then answered each question and reported their findings.

Additional Individual Assignments & IPRO Project Team Tasks

Project Aspect	Student(s) Most Involved
Team Leaders	Mindy/Ed
Technology	Michael/Aaron/Blanca/ Matt/June
Projection Supporting System	Hyung/Michael
Projection screen	Ryad/June/Blanca/Hyung
Interactivity	Ed/Aaron/Matt
Sound	Ryad/Mindy
Art	Ed/Mindy
Website	
• Design	June/Mindy/Ryad
• Content	Mindy/Leah
Team Log, Journal	Leah
PRS	Leah/Mindy
(Project Plan/Mid-term Progress Report/Final Report)	
IPRO Day Conference	
• Abstract	Leah
• Presentations Slides	Michael/Mindy/ Ed/Matt
• Presenters	Michael/Mindy/Ed/Matt

Barriers & Obstacles

The biggest obstacle our team encountered was visualizing the space for the Digital Façade of the Hyde Park Arts Center. The new building for the Hyde Parks Arts Center is still under construction, and we needed to use physical and visual models to try to understand the dimensions of this Digital Façade that we are creating. Through photographs, visits to the constructions site, meeting with the architect of the building, blueprints of the construction, and also many other resources, our team was able to overcome this obstacle.

Our next obstacle was putting together the available resources and creating possible scenarios. Because we were not given a set budget, and only an estimate, our team was asked to be creative and unlimited in our research for this project. This instruction made the information we have gathered to be a considerable quantity, and our team needed to be resourceful and innovative to create the different possible uses of the Digital Façade. All of the subgroup members worked within their group as well as outside of their subgroup, with other subgroups of our team. As a team, we overcame the obstacles we have encountered through proper and immediate communication, and also by working closely to one another.

Results & Conclusions

Recommended Next Steps

References

Acknowledgements

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