

Art in your Space Project

Preparing students at risk of dropping out of high school for 21st Century careers by collaborating with professionals to create custom interactive art installations for workspaces.



Benjamin Cramer
Government 3.0
Professor Beth Noveck

The Problem

1. In NYC in 2012 40% of high school students didn't graduate in 4 years.
2. Students lack ways to meet and work with professionals to prepare for the workforce. Fewer than two in five hiring managers (39%) say the recent college graduates they have interviewed in the past two years were completely or very prepared for a job in their field of study, in general.
3. Programs that offer high school students hands on learning in arts and technology are A. Unaffordable for many students B. Struggle to find funding to accept more than a small percentage of students who can benefit from their STEM, project based, and integrated arts instruction.

*Source: NYC Department of Education

*Bridge That Gap: Analyzing the Student Skill Index

Combine Best Practices

Project Based Learning

“...PBL increases long-term retention of content, helps students perform as well as or better than traditional learners in high-stakes tests, improves problem-solving and collaboration skills, and improves students' attitudes towards learning.”

Source: www.edutopia.org/pbl-research-learning-outcomes

Science and Engineering Learning

“I want us all to think about new and creative ways to engage young people in science and engineering, whether it's science festivals, robotics competitions, fairs that encourage young people to create and build and invent - to be makers of things, not just consumers of things. **President Barack Obama** (White House Hangout: The Maker Movement, 2013)

Source: Invent to Learn - Stager and Libow-Martinez

Integrated Art Learning

“... integrated arts units developed in CAPE partnerships have had cognitive, affective, and social benefits for their students, perceiving their students to be more motivated to learn and more engaged in learning, that they participate, collaborate, and model more, and that they are more confident learners who comprehend, retain, and transfer more information and skills.”

Source: *Learning Partnerships: Improving Learning in Schools with Arts Partners in the Community* (1999)



Emoti-Con! Winners Dining Band that used temperature and distance sensors to help blind food on the table using vibration from a motor.

Examples of Maker Programs

The maker culture is a contemporary culture or subculture representing a technology-based extension of DIY culture.

Source: en.wikipedia.org/wiki/Maker_Movement

Youth Educational Spacecraft Project

The YES Project travels to schools offering workshops on space exploration and recycling.



Images Source: <http://youtheducationspacecraftproject.wordpress.com>

MOUSE CORPS



Design and built products for United Cerebral Palsy.

We have also made more progress with the de-bugging for the code on the motor.

```
#include // include the servo library  
Servo servoMotor; // creates an instance of the servo  
object to control a servo  
Servo servo2;  
int analogPin = 0; // the analog pin that the sensor is on  
int analogValue = 0; // the value returned from the analog sensor
```

Image and Code Source: <http://mousecorps.wordpress.com/>

Beam Works

The Open Stoop project built by student at Brooklyn International High School with a teaching artist



Overall Program Objectives

- Identify organizations, schools, and business to coordinate and fund the implementation of Art in Your Space projects across NYC.
- Connect students to role models and career opportunities in the tech/innovation world to prepare students for 21st Century careers.
- Increase interest in students and businesses learn by technical and team work, and presentation skills by making interactive art project(s) that transform workspaces.
- Develop a model for after-school and in class project based learning centered around arts and technology learn and collaboration with professionals in their workspaces
- Teach core academic and creative competencies through teacher, mentor, and artist supported integrated arts projects centered on: electronics, design, fabrication, and project planning.

Planned Pilot Project Description

- A 12 week program after school program for 10 – 12 students from underprivileged students interested with proven interest in arts and technology.
- Students will meet for 2 hour sessions at City As School, a professional partner's workspace, and Makerspaces.
- Curriculum will be designed by Eyebeam with input from teachers, students, employees at workspace, and a grad student from ITP.
- Lesson topics will include: electronics, programming, design, fabrication, project planning, and other areas of student interest.
- Students will work in small teams with professionals who commit 20 hours to support project based art/technology learning and access to workspace and other employees.

Potential Partners for Pilot



Grad Student
Instructor

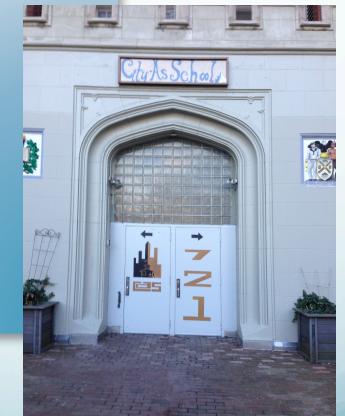
SWELLERIM
ART + TECHNOLOGY CENTER

Instructor

Students

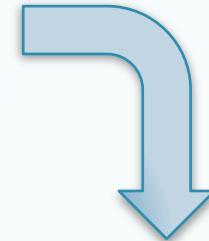
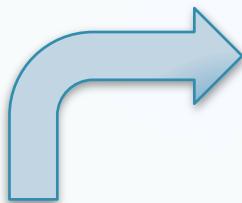
Interested
Professionals
from workspace

High School
Teacher



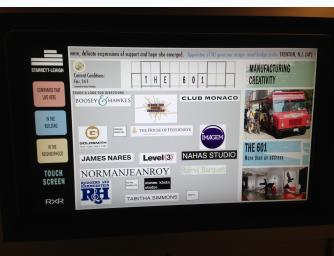
Art with a Purpose. Art in your Space.

Applied learning through the creation of interactive art installation in workspaces.



1. Visits to employer workspace

Design Feedback Loop



2. Design & Prototyping



3. Building & Refining



4. Installation in Workspace

Source: thinkvisual.wordpress.com/tag/metropolitan-museum-of-art/

Alleynyc Facebook page

Photos of student projects from Interactive Telecommunications Program at NYU

Plans for Art in Your Space

Pilot Program

- Apply with for funding and pitch program to the Department of Education's Digital NYC, New York City Economic Development Corporation, and/or Mozilla Hive Grant
- Create a budget proposal in the range 15-20 K with Eyebeam, City as School, and ITP.
- Establish a project timeline and curriculum with partners for target launch March 2014
- Form an Advisory Board including business partners, program directors, marketing, finance, and education experts.



Beta Testing

- Develop and send surveys to businesses with proposal written by students to identify new project themes.
- Look to Mozilla Hive and member organizations to develop guidelines, timelines, and applications for future collaborations.
- Use a “fishbowl” approach to share learning with other programs and learn from rich tech/art program ecosystem to improve future projects
- Explore themes for projects in workspaces such as music installations, presenting data or environmental or social justice.



Vision for Art in Your Space Project

1. Create a website to promote the Art in Spaces Project and educate the public about it's mission and activities leading to increased investments in arts/tech programming.
2. Speak with artists, students, design firms, corporations, and other stakeholders about criteria for a city wide challenge to design art for work spaces
3. Explore having art pieces go “on tour” to visit schools, parks, and other businesses
4. Secure stipends and academic credit for students from businesses, grants, and or schools.
5. Include a pre and post assessment. Using Multi-dimensional creativity and Innovation assessment based on Theory of Intelligence Scale (Dweck, 1999) to validate program efficacy.

Many Thanks

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Heather White – Burning Man Project

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Blonka Winkfield – The Leadership Program

Students in the ITP Winter Show 2013

The Schools 4.0 Team

Steve Midgley – U.S. Department of Education

Arnaud Sahuguet – Google.org

Kate Yourke – The Lang School

Benedetta Piantella – ITP

Kevin Merritt – One Foot Productions

Tal Bar-Zemer- City Lore

The Blue School

Alberta Wright – Schools 4.0

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Prepared as part of a class at NYU

Government 3.0 Fall 2013

Professor Beth Noveck

Sources

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