

# Teaching Philosophy



Seymour Papert

Seymour Papert reasons that technological objects have the potential to be objects that can democratize knowledge, encouraging the creation of “toys to think with” as a premise to get us there. Such toys, he argues, would organically and creatively engage us in math and science that is accessible to any learner.

As a young person, my learning was dictated by standardized testing. This resulted in memorization instead of actual learning. I would immediately forget the work after the exam and developed major anxiety around testing. I eventually convinced myself that I was not a “math or science person”. It was in graduate school at The Interactive Telecommunications Program (ITP) at New York University, that I learned how to engage with math and science in a way that made sense to me. It became clear that those unhealthy memorization habits resulted in the predetermined notions of what a mathematician or scientist looked like, and created a narrow understanding of where I could engage with these disciplines.

Learning through tinkering and making, allowed me to bask in the joy of discovery and encouraged a “fail fast” approach that was not fixated on measuring intelligence, but rather how resilient they are. Engaging in “serious play” and interactive learning allowed me to literally take learning into my own hands.

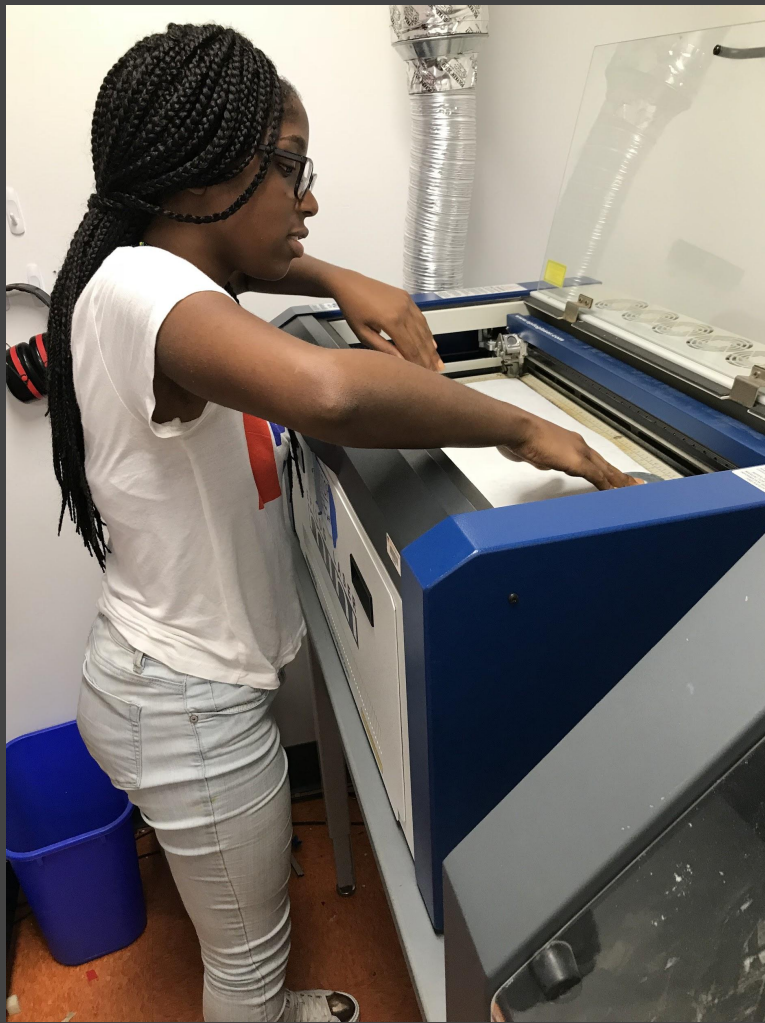
While discovering the world of tinkering and making, I was confronted by the increasing amount of popular technology that has become more and more impenetrable, essentially robbing users of their imagination, opportunities for adaptation, and the potential of becoming producers rather than just consumers. This was the opposite of what I was engaging in.

This is when I started to pair Seymour Papert's teaching philosophy with Paulo Freire's teaching methods, which completely abandons the classroom altogether. It is not that he disliked the classroom, but rather that he recognized the politics of the space. It dawned on me that making and tinkering was a privilege. I had been decolonizing the learning methods forced upon me as a public school student and was literally paying a price for it. "Playing" had a price tag attached to it, which is not only cruel but unjust.

Not only is teaching political, but so is learning! My new goals included expanded learning outside of the classroom and designing a curriculum to acknowledge how and why education is political. My experience as a community organizer naturally centers people power and collective learning in the classroom, however the teachings of Freire and Papert clarified technology's role in learning and the language to name technology, math, science, and art outside of the classroom.



Paulo Freire



As a professor of higher education my duty and passions include:

- Going beyond the fourth wall of the university, not just in theory but in practice.
- Presenting students with a diverse group of figures to learn and read from, highlighting LGBTQAI+ BIPOC creators.
- Student curated learning; incorporating their interest, research, and teaching into the classroom space.
- Collaborating with other instructors and professionals to guest lecture, especially when introducing technology that may not be of my specific expertise.
- Focusing on visual storytelling and reinforcing technology as a medium and not the end goal.
- Creating culturally relevant tech pedagogy.



My teaching philosophy is influenced by the constructivist learning theory, which underpins a variety of student-centered teaching methods and techniques such as oral discussions, pre-testing, and hands-on activities,

During my time as the Director of The StudioLab, a creative tech lab at Princeton University, I was able to foster a partnership with the Princeton Public Library where student ambassadors volunteered to teach STEAM programming once a month to the larger Princeton community. This was their opportunity to user test projects and ideas, get hands-on training teaching an intergenerational audience, and provide a service that extended beyond their immediate university community.



\*\*Click the image on the left and right to play the movie

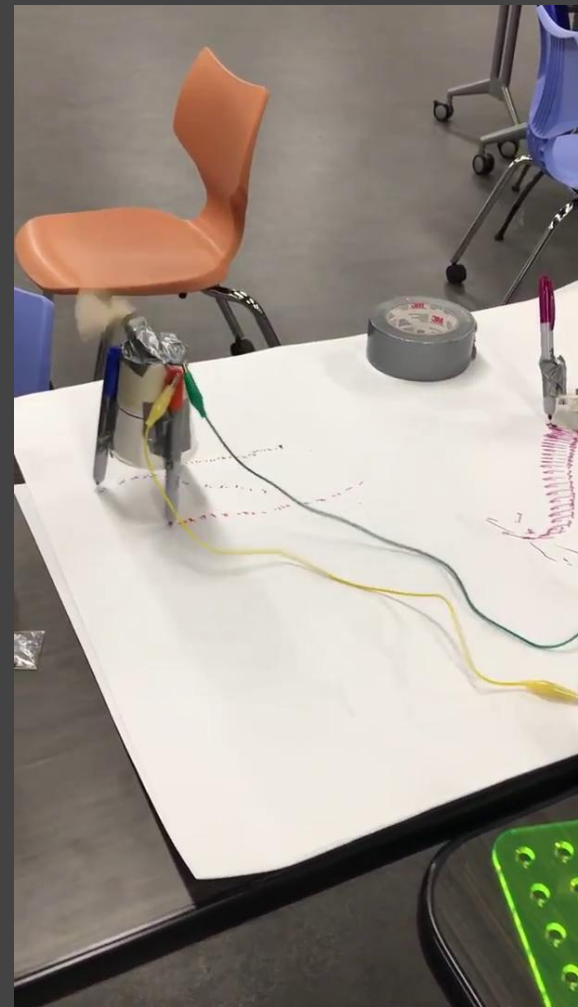
## "Using your senses makes sense!"



"Using your sense makes sense" is a collection of student projects curated by The StudioLab, a creative tech lab at Princeton University. This theme explores projects with very obvious uses of the five senses.

### Council on Science and Technology- StudioLab

The CST developed the StudioLab to bring together students, faculty, and staff, independent of area of concentration, to explore the intersections and shared creativity across STEM, the arts, humanities, and social sciences.



SEPT 22+23, 2018

# Culturally relevant tech pedagogy



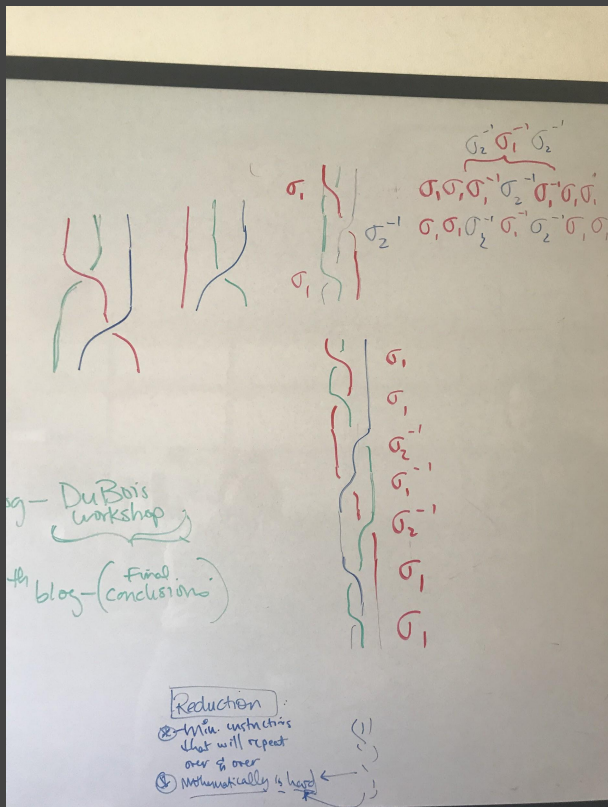
W.E.B. DuBois Scholars Institute scholars learning about fractals

One of my goals at Princeton included connecting with surrounding high schools and other organizations serving marginalized youth.

I sought to create (with fabulous co-conspirators of course) various workshops that used culturally relevant tech pedagogy to highlight math and science in underserved communities. In collaboration with mathematician, Bernat Guillen Pegueroles, we facilitated a workshop about the mathematics of cornrows. Objectives included the introduction of cornrows as fractals, an introduction to braid theory, the practicality and history of cornrows, and a discussion about the importance of identifying and labeling math and science in their cultures.

Check out Bernat's braid simulation [here](#).

# Braid theory, Reduction, and Fractals





And there are so many other culturally relevant examples!



Ron Eglash  
African fractals research



Francesca Rodriguez-Sawaya  
Texere



Grandmaster Flash  
invented "scratching"

# Hack The Drag

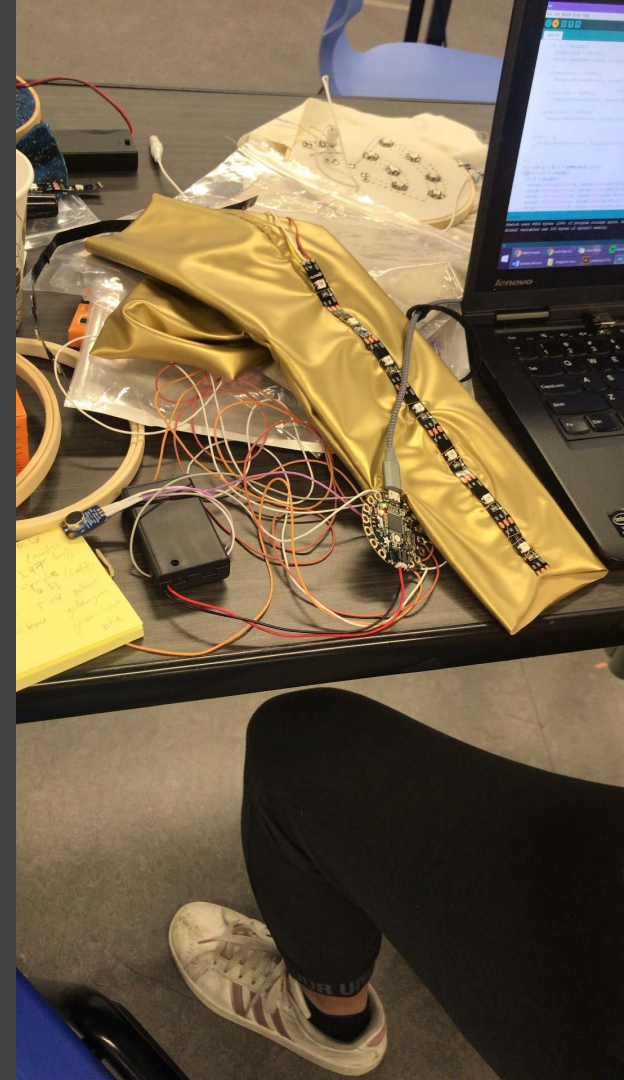
“Hack The Drag” is a STEAM enthusiast’s love letter to RuPaul’s Drag Race. The weekend hackathon recruited students with little to no experience in circuit building and introduced them to circuit making, storytelling through performance, wearable technology, and the basics of sewing. Costumes were premiered as part of a Sunday afternoon drag show competition hosted by “The Vixen” from RuPaul’s Drag Race. This event was produced in partnership with CST StudioLab and The LGBT Center. A major goal for this event was to showcase culturally relevant tech pedagogy and invite the larger Princeton community to express themselves with technology.

CST STUDIOLAB AND THE LGBT CENTER PRESENT

# HACK THE DRAG

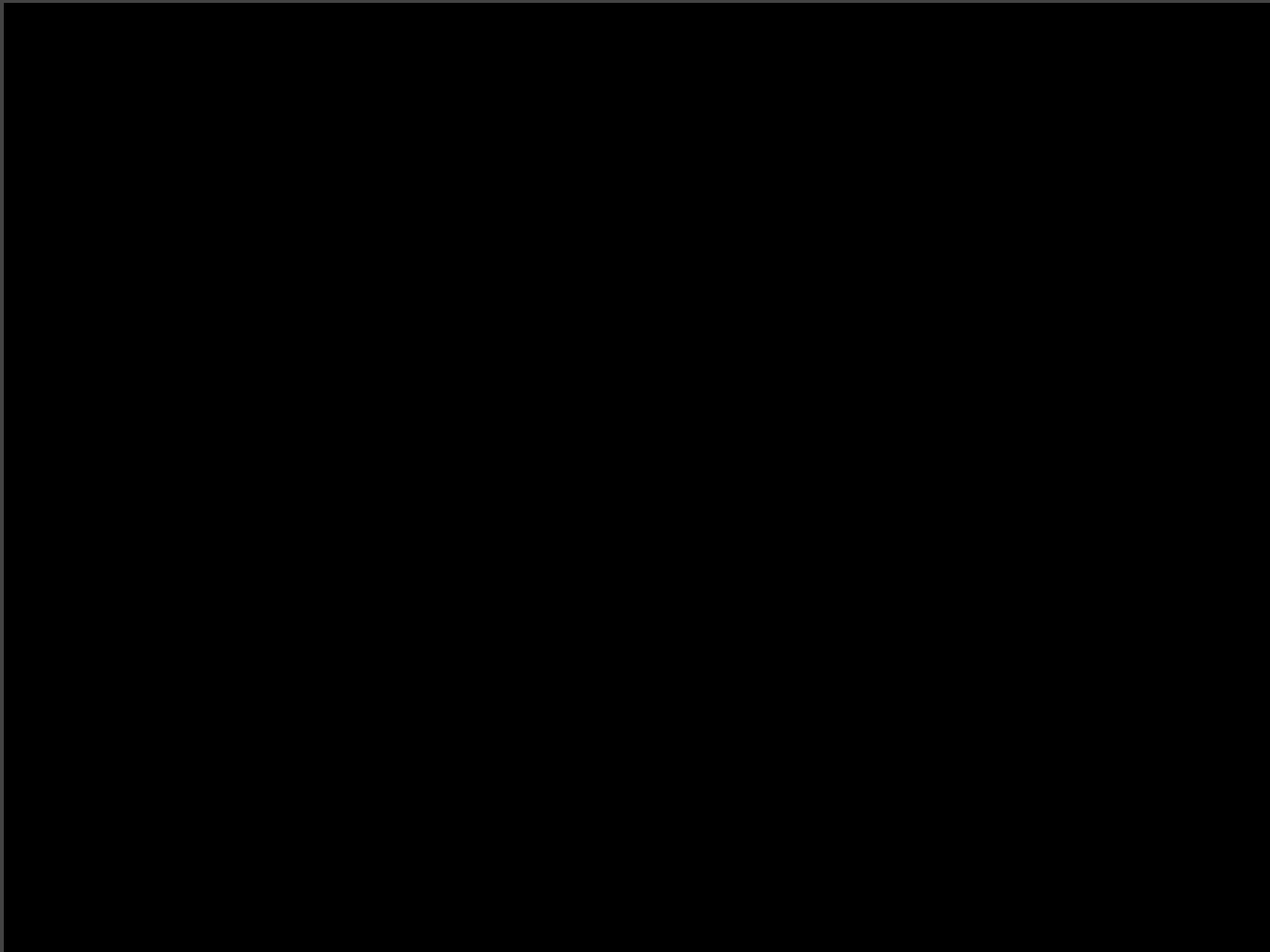
TEAM REGISTRATION HAS BEGUN  
MORE INFORMATION, INCLUDING RSVP CAN BE FOUND AT  
<http://bit.ly/hackthedrag>

PLEASE EMAIL [LGBT@PRINCETON.EDU](mailto:LGBT@PRINCETON.EDU) IF YOU HAVE QUESTIONS



\*\*Click on the image above to play the movie





\*\*Click on the  
box to play  
the movie

As a BIPOC student in undergrad, I remember the challenge and dance around creating art while being force-fed a very White, fine arts canon. Simultaneously, there were invisible, but ever-present pressures to create art about my Blackness, which only allowed room for creating under a white gaze and fetishization. For this reason the final point of this presentation is focused on joyfulness. Why joyfulness? Historically, marginalized communities have used joyfulness as counter to the White gaze, almost as an unexpected rebuttal. It looks like slave hymns, hip hop, jazz, voguing and much more.

Joyfulness is a main component in my classroom. It requires us to be present and vulnerable, something increasingly difficult to do during these unprecedented times. Joyfulness is a complement of anger, not it's opposite. Understanding this dynamic allows me to utilize the tools of celebration and humor to speak to serious subject matters.

It is important to recognize the irony that for many BIPOC students, historically White institutions are a "safe space" to learn about their identity. This can be confusing and traumatizing. It is important to me that the process of art making, at its core, remains and offers opportunities for joyfulness.





**Moses Sumney**

@MosesSumney



Not everything a black artist does has to be  
"afrofuturism" ya know

Sometimes it's just... a black person... living and creating  
and not dying .

5:10 PM · Nov 28, 2018 · Twitter Web App

**1K** Retweets   **53** Quote Tweets   **6K** Likes



**Moses Sumney** @MosesSumney · Nov 28, 2018



Replying to [@MosesSumney](#)

i know you're excited to fire off your new woke vocabulary but chill



1



43



441



“Societies never know it, but the war of [artists] with [their] society is a lover’s war, and [they do], at [their] best, do what lovers do, which is to reveal the beloved to [themselves], and with that revelation, make freedom real.”

-James Baldwin  
*The Creative Process*

Thank you.

Sharon De La Cruz  
unoseistres.com

[unoseistres@gmail.com](mailto:unoseistres@gmail.com)



THR-210 (Storytelling with Technology for Performance) students presenting their final project