



Commentaries in Urban Education

DIVAS for Social Justice: Building Resilience in Youth Through STEAM

Abstract

DIVAS (Digital Interactive Visual Arts Sciences) for Social Justice is a STEAM-based grassroots organization that has created positive youth-led multimedia projects for the past 17 years in communities of color. The organization uses digital media and emerging technologies in the development of youth voices to tell the stories of their communities. We demonstrate how youth creating multimedia content around issues facing a community can be a vehicle for leadership development and resilience. We explore three programs:

Gentrification Through the Eyes of Youth: A multimedia exhibition led by youth, ages 7-14, to address solutions to gentrification in the Bedford-Stuyvesant neighborhood.

Laurelton.nyc: The launch of the neighborhood website to share positive stories

of Southeast Queens and increase digital literacy.

Forward, A Social Justice Makerspace for All: A makerspace focused on participatory action to design a community space that can lead to economic opportunities for the greater community.

Keywords

STEAM, STEM, social justice, underserved communities, resilience, digital literacy

How to Cite

James, C., (2024) "DIVAS for Social Justice: Building Resilience in Youth Through STEAM", *VUE (Voices in Urban Education)* 52(2). doi: <https://doi.org/10.35240/vue.76>

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DIVAS (Digital Interactive Visual Arts Sciences) for Social Justice is a STEAM (science, technology, engineering, arts, math) based grassroots organization that has created positive youth-led multimedia projects for the past 17 years in communities of color. The organization uses digital media and emerging

technologies to develop youth voices to tell the stories of their communities. Allowing youth to actualize a multimedia project that lives online or in their community gives them the confidence to see themselves as a changemaker while acting as a vehicle for leadership development and resilience. DIVAS programming also provides a platform where youth can discuss the issues that affect them the most in an environment that is driven by love. While bridging the digital divide is of the utmost importance, building a community that empowers individuals to contribute to solution-based strategies for community issues is essential. By following this model, DIVAS has successfully helped youth become not just technologists but also social workers, multimedia producers, educators, and so much more. Highlighted in this article are three DIVAS projects that exemplify access to emerging technologies, develop critical thinking skills, and prepare youth and the greater community to be the changemakers of their neighborhoods.

Gentrification Through the Eyes of Youth: STEAM Camp

The DIVAS STEAM Camp was launched in the summer of 2014 to explore the impact of gentrification through the eyes of the youth who were experiencing it. The cost of participating in the six-week program ranged from free to \$300 for the entire session. Youth, ages 7-14 years old, participated in a five-day-a-week intensive program that consisted of the following:

History and Critical Analysis

For youth to understand the definition of gentrification and the history of housing in the Bedford-Stuyvesant neighborhood of Brooklyn, the students visited Pace University once a week to engage in critical conversations and historical research. Students explored the demographics of Bedford-Stuyvesant, reviewed archived articles, and viewed footage of their neighborhood. The meetings at Pace always took place at the beginning of the week and would provide the foundation to make sure the project they would eventually create would be rooted in being reflective with a historical context but also have a personal perspective.

3D Printing and Robotics

Youth learned the fundamentals of three-dimensional (3D) printing in *Google SketchUp* by designing brownstones with the likeness of homes in Bedford-Stuyvesant. Once students learned how to create the foundational schematic, they were free to experiment and change the rooftops of their brownstones. In addition, students were allowed to be creative in painting their brownstones to represent their individual styles. Through robotics, students learned to operate a *Lego Mindstorms* robot that would amplify the need for community conversation about the issue of gentrification. Later in the fall of 2014, the majority of youth who participated in the STEAM Camp continued programming and joined the organization's robotics team. The team won first place at the Brooklyn First Lego League for their presentation and went on to compete at the Jacob Javitz Center.

Digital Media, Video, and Photography

Students also interviewed Assemblywoman Annette Robinson about the issue of gentrification. By interviewing a local elected official, students were able to learn about the overall impact of gentrification from a legislative perspective. Students created and edited a video with a series of visits to New York University's Tandon School of Engineering's Integrated Design and Media Department where they learned to create animated graphics. The students expressed their views through moving words on the impact of gentrification. To visually understand the definition of gentrification, students embarked on a photography landscaping project to document changes in their neighborhood. Some of the photos showed real estate signs, emerging construction sites for luxury buildings, and an influx of coffee shops and restaurants.

Data Analysis and Bringing It All Together

Students learned to read data that expanded their understanding of how people of color were being affected by gentrification. All of the content was then curated to be placed on a map that highlighted the solutions the youth provided to help educate the community about gentrification. The 3D-printed brownstones were strategically placed on a map where participants in the program lived in Brooklyn. Youth also designed 3D-printed community tables that were placed throughout different blocks on the map. The community table represented the notion that

while the youth believed gentrification was here to stay, we needed to create spaces where community members could come together and discuss housing that could work for all. Youth wanted to highlight that community dinners could happen at summer block parties every weekend. In addition, the youth utilized Lego pieces to add greenery and community members to the map in a three-dimensional way.



Figure 1. Student-created multimedia display Gentrification Through the Eyes of Youth at the Weeksville Heritage Center

The DIVAS STEAM Camp took place at the Weeksville Heritage Center in Brooklyn. DIVAS for Social Justice leased programming space for three years at the historic site. Weeksville allowed DIVAS to exhibit the culminating project from *STEAM Camp: Gentrification, Through the Eyes of Youth*. Youth who participated in the project were interviewed by *NPR's Marketplace* and *BBC America*. *This project exemplified that youth as young as seven years old can engage in critical conversations about community issues if the bar is raised in the approach to learning.*

Laurelton.nyc: A Hyper-Local, Youth-Led News Portal

In developing programming that helps bridge the digital divide, DIVAS recognized the importance of creating a space that would expand literacy among its constituents. In the first five years of the organization, DIVAS for Social Justice was allotted the opportunity to write for a variety of hyper-local news portals in Brooklyn to promote its programming, which led to the organization being highlighted in local and national press. In 2015, when DIVAS expanded programming from Brooklyn to Southeast Queens, there was no similar outlet available. In 2016, when the Mayor's Office of Innovation and Technology put out a request for proposals from non-profit organizations to lead neighborhood domains, DIVAS proposed a hyper-local news portal for the Laurelton community called Laurelton.nyc.

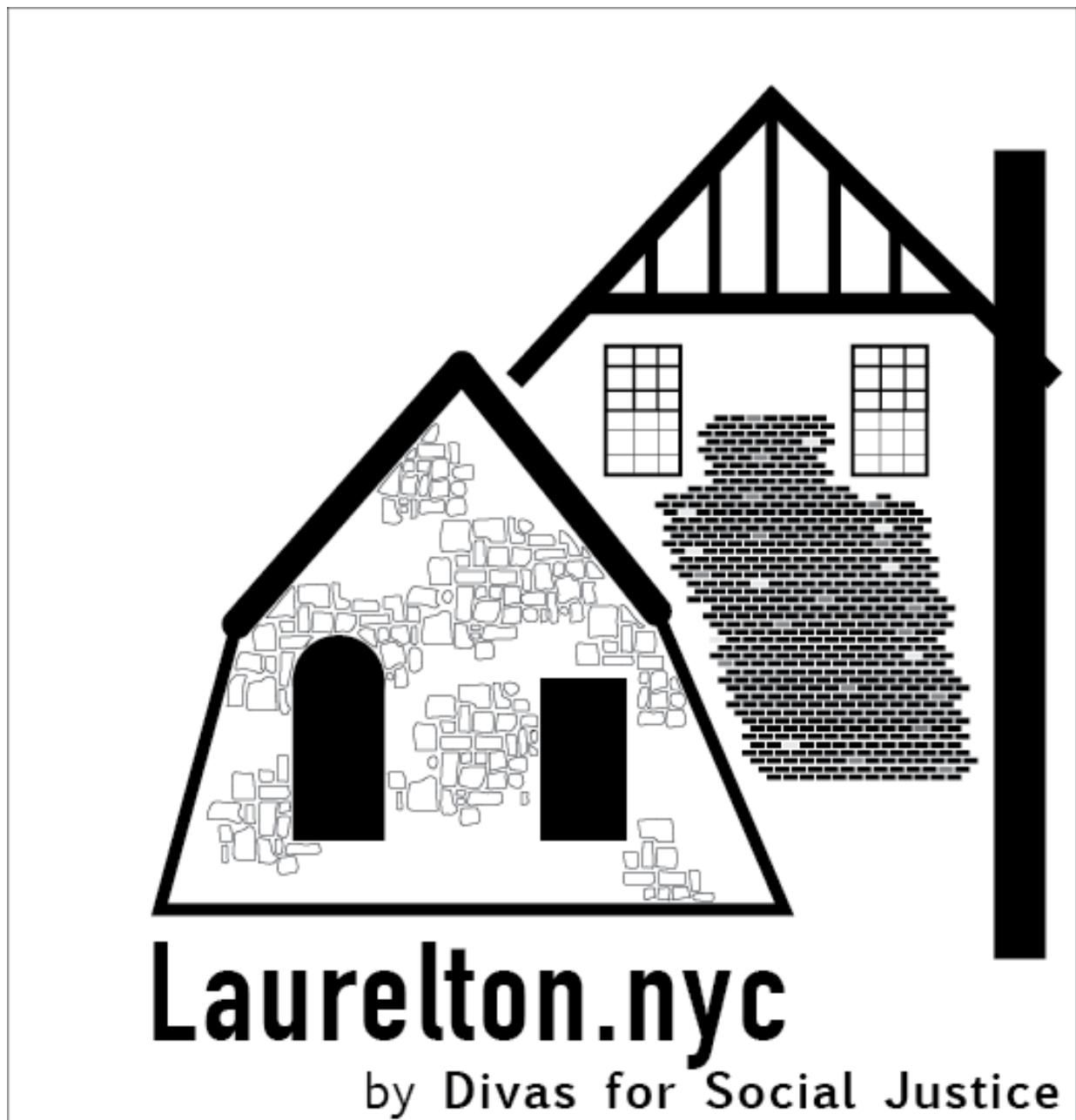


Figure 2. DIVAS for Social Justice launched Laurelton.nyc in 2016

Laurelton is a neighborhood located in Southeast Queens that consists of working-class families of African American and Afro-Caribbean descent. The news portal was intended to empower youth and the greater community to engage in citizen journalism. In addition to submitting a proposal, the organization was required to collect over 200 notarized affidavits from community members. The organization sought out the affidavits by connecting with local civic associations, elected officials, and the community board.

With the launch of Laurelton.nyc, DIVAS featured local neighborhood opinion editorials, a health and wellness section, and a leadership development section. The site also featured a youth citizen journalism section where the three schools that DIVAS provides programming could publish the community journalism they were learning about and writing through the program. All of the youth's writing is featured in this section.

In 2017, the host domain, .nyc, launched the Best of The Boroughs contest, and Laurelton.nyc won for the borough of Queens. The prize was a feature article and the website was advertised in the city's transit system advertising. Laurelton.nyc has also been effective in serving as an organizing tool to highlight the importance of environmental justice in Southeast Queens. Two examples of its impact are the Laurelton Operation Clean Up and The Garden of Resilience.

Laurelton Operation Clean Up

Laurelton Operation Clean Up was founded by a local resident, Melva Miller. DIVAS for Social Justice served as a community partner for this project. Laurelton Operation Clean Up organized 50 to 75 community members to participate in clean-ups and beautification projects in Laurelton each spring and summer from 2016 to 2020. Laurelton.nyc was used to bring awareness to this initiative by promoting the event and highlighting community members' efforts through photography. The project met once a month and exemplified how communities of color are proud of where they live and want the same beautification in their communities as others. By highlighting community residents in the hyper-local news portal, we were also able to bring attention to the importance of camaraderie in a community.



Figure 3. Laurelton residents come together once a month to clean up the neighborhood. Standing in front of a beautification project led by Laurelton Operation Clean-Up

Garden of Resilience

DIVAS for Social Justice also used Laurelton.nyc as an organizing tool to convert an abandoned lot into the first community garden in the tri-community of Laurelton, Springfield Gardens, and Rosedale. DIVAS identified the abandoned lot in Springfield Garden, which was formerly controlled by a city agency. To move the land to the New York City Parks & Recreation Department, the organization once again needed to petition signatures and receive a letter of support from the local community and the city councilperson. This time, students aged 9-14 served as the catalysts to help move the initiative forward in two years. In 2018, DIVAS students collected signatures from local residents while cleaning up the local Laurelton rail station. When commuters exited the train, students would approach them to collect their signatures. In addition, students in the DIVAS after-school program wrote op-eds about why a community garden was needed in the neighborhood. The executive director of DIVAS for Social Justice included published work of the youth on Laurelton.nyc in all correspondence with the

community board, elected officials, and the parks department to move the initiative forward. An initiative that would usually take five years was finished in two years with the support of youth voices. In February 2020, DIVAS for Social Justice signed a contract with the Parks Department to become official stewards of the Garden of Resilience.



Figure 4. Students collect signatures from local residents to convert an abandoned lot to a community garden

With the COVID-19 pandemic shutting down the world in March 2020, we made the collective decision that we could begin construction of the garden. Importantly, the garden beds would be communal, and all food grown would be given away for free to community members. DIVAS also decided that the Garden of Resilience would be interactive and serve as a space to encourage outdoor learning with innovative technology options. The garden was built in the summer of 2020. With the fiscal crisis the city was in, the composting program was cut, and \$3 million was allotted to groups like Queens Botanical Garden to encourage compost sites to make up the difference. The Garden of Resilience was the first compost site in Southeast Queens.



Figure 5. Compost Give Back event at the Garden of Resilience

DIVAS promoted this endeavor by laser-cutting QR codes. DIVAS also converted wooden pallets into gallery walls that featured youth work from the after-school program. The organization commissioned local Queens social entrepreneurs to design a sculpture that featured access to youth voices through a QR code and a solar-powered hydroponic tower at The Garden of Resilience. At the end of 2021, The Garden of Resilience was awarded the Art Award from the NYC Parks Department, Greenthumb division.

Partnering with NYU: A Social Justice Makerspace Model

DIVAS for Social Justice has developed a holistic practice toward providing programming over the years. In providing free STEAM-based programming, the organization learned the importance of not just educating youth but also giving opportunities to the greater community to receive access to emerging technologies. In 2018, DIVAS acquired its first storefront for the organization at an affordable rate. The new storefront would allow the organization to provide free programming to the surrounding community.

Through a partnership with New York University, DIVAS developed the Social Justice Makerspace Model. With the support of Dr. Kayla DesPortes and the graduate research team, DIVAS held community participatory workshops to design a social justice makerspace model. Community members invited to the workshops included current youth participants, parents, educators, elected officials, and civic associations. Participants engaged in a brainstorming session to design what a social justice makerspace would have in Bedford-Stuyvesant. Participants also provided input throughout the process on how the makerspace should look.

In June 2019, DIVAS for Social Justice hosted an open house event at Forward, A Social Justice Makerspace for All. Soon after, the organization hosted a virtual reality (VR) teen mentorship program where students learned the fundamentals of VR and facilitated free workshops for the community to experience VR and learn about affordable options with the medium.

DIVAS also hosted an intergenerational program at the makerspace called Positive Reinforcement on Urban Display (PROUD). The PROUD project was led by a local artist whose day job was designing storefront windows for major corporations. The artist facilitated urban displays that incorporated analog and digital content and were centered on the following themes:

- What is a Makerspace?
- Black Lives Matter
- Thankful
- Love Is Love



Figure 6. DIVAS for Social Justice launched the PROUD project, What is a Makerspace?

In 2020, with the onset of the COVID-19 pandemic, DIVAS for Social Justice utilized the windows of the makerspace to continue interacting with the community. The organization laser-cut QR codes that could keep residents informed of programming and let them view past work. In addition, the social justice makerspace became a learning lab for students who participated in hybrid learning from the New York City public schools. Students could participate in their school-based remote learning in the morning and engage in STEAM-based activities in the afternoon.

The Future of DIVAS

In 2021, Dr. Kayla DesPortes published an academic paper in which Forward, A Social Justice Makerspace for All was the case study. This project highlighted that there is a direct need for more spaces in underserved communities to be available for individuals to have access to innovation and learn twenty-first-century skills. The work of DIVAS does not just educate the greater community needing these skills but also elevates their voices to be seen and heard through

such programming. DIVAS for Social Justice believes there should be a social justice makerspace available in every underserved community because people deserve the opportunity to dream. In June 2024, DIVAS will open its second social justice makerspace in South Minneapolis. The makerspace will be readily available to residents from the Longfellow community after a major renovation after the George Floyd uprisings. The organization is honored and humbled to grow a model that was for the people and by the people.

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Issue

Volume 52 • Issue 2 • 2024 • Centering Community Healing, Sustenance, and Resilience in STEM and Computing Education Through Art and Social Justice

Dates

Accepted	2024-04-10
Published	2024-07-31

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Identifiers

DOI: <https://doi.org/10.35240/vue.76>

Peer Review

✔ This article has been peer reviewed.

File Checksums (MD5)

| ISSN: 1553-541X | Published by [Metropolitan Center for Research on Educational Equity and the Transformation of Schools](#) | [Privacy Policy](#) |

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