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The 360 Filmmakers Challenge engages young people to produce 360° films that make an impact.

As part of the Oculus VR for Good initiative, the program aims to inspire the next generation of virtual reality (VR) creators and build student skills and confidence as producers with emerging technology.

More broadly, the program takes aim at closing the Digital Learning Gap, recognizing that schools need more than just equitable access to technology — all students need opportunities to engage in active, creative uses of technology that support lifelong learning.

The Fall 2016 program implementation involved 36 high schools across the country, the vast majority of which were public schools serving diverse populations of learners in urban and suburban communities.

Schools received 360° film production tools from Oculus, including the Samsung Gear VR headset and the Ricoh Theta S camera. Digital Promise Global offered participants production resources, as well as an online community space for educators to collaborate. Clay Park VR facilitated a team of professional filmmaker mentors who offered expertise and feedback for student films.

The films produced in this program represent the passions and commitments of a group of students making an impact on the world through their stories, using a new medium with which few people, even professionals, have deep experience.

- **36 high schools**, including 32 public schools, 3 public charter schools and 1 private school.
- **1,200 students** across 7 states.
- **50% of participating schools** receive Title I funding.
Participating School Demographics

The Fall 2016 round of the 360 Filmmakers Challenge reached over 1,200 students in seven states – California, Washington, Nebraska, Minnesota, Georgia, Maryland, Virginia – and in the District of Columbia. Of the participating schools, 32 were public schools, three were public charter schools, and one was private. Of the 34 schools with publicly available data, 65 percent serve populations where over 40 percent of students were eligible for free or reduced-price lunch, and half (17 schools) receive Title I funding.

Implementation Context

All participating sites were high schools. The 360 Filmmakers Challenge was implemented by educators across a wide range of instructional contexts, from technical filmmaking and multimedia classes, to subject area classes such as chemistry, social studies, and government. The sites varied widely in their technology resources and experience with film production. Only five sites had previous 360° film production experience, having participated in the 360 Filmmakers Challenge pilot in Spring 2016.

Documentation Methods

Digital Promise Global commissioned Designs for Learning, Inc. to document the experiences of participating youth and educators.

The documentation aimed to surface the potential of the program to enable teacher and student growth, and to solicit feedback from participants in order to continuously improve program design. Given the novel and unique nature of the program, Designs for Learning took a highly exploratory approach to documentation, with an emphasis on discovering potential areas of impact and value. Students and teachers at all sites were invited to respond to online surveys about their experience, and over 400 responded. Additional insights were drawn from informal conversations with students and teachers at three of the sites who volunteered to share their experiences.

This process yielded a variety of themes, which suggest valuable aspects of the program design as well as possible implementation benefits. In future implementations, more formal and structured approaches to program evaluation will further investigate these themes to determine the extent to which they generalize to broader audiences and are impactful on students and teachers.

Menlo-Atherton High School, Atherton, CA
Key Findings from Youth and Educator Perspectives

Youth

1. Production Skills and Exposure to Career Possibilities

"Before this project I never considered myself much of a computer person...I didn’t think I was very tech savvy, but then learning this [software] program and being able to maneuver my way around it really well made me see myself differently. I can actually discover how to use programs that I never thought I could." - Student

The program gave young people opportunities to learn new creative and technical skills including idea development, production, and peer review processes. Students also had the chance to learn about technology they had never used before, including 360° cameras, virtual reality headsets, and video editing programs. The majority of teachers and students felt they had benefitted from the program in this regard.

In some cases, getting hands-on experience with emerging technologies and exposure to professional 360° filmmakers helped students discover new career possibilities in creative and technical fields. One student reflected, “It gives us more sense of the real world because in school we only learn core classes. This gives us a chance to see things outside of that, and professions outside of what we’re introduced to in class. It gives us a chance to think about what we want to do after school.” Several participants indicated that they developed interest in media and technology fields.

One teacher reflected, “All students seemed to hold an understanding that this was cutting edge and that the skills to be gained will be marketable in their professional futures.”

100% of educators indicated that their students learned new technical and creative production skills through their participation in the program.

88% of students agreed that the project was a great way to learn something new.

59% of educators agreed that their students discovered new career possibilities in creative and technical fields.
2. Perspective-taking

Participating young people appeared to develop perspective-taking skills throughout their participation in the program, suggesting the experience could build empathy given the right supports and context.

A young woman who created a 360° video about her school’s girls wrestling team reflected, “I don’t wrestle, and when I went out to the practices, it really helped to see how hard they work for this, and how much blood, sweat, and tears they are pouring into it. I think by also making that into a 360° film you can really immerse yourself into those practices and see just how hard these girls are really working towards their goals.” It is notable that this student highlighted how both the production experience and the 360° film medium helped to build understanding of the wrestling team’s commitment.

3. Communication and Collaboration

[The project] started more communication in our class...it was a learning experience not only when it comes to technology but when it comes to what other people are passionate about and want others to know about.” - Student

Communication and collaboration were clear themes that emerged among youth who participated. The purpose of the program is to communicate a story using 360° video, and the production process itself also requires students to communicate their ideas clearly, give and receive feedback, and work together in teams.

One teacher reflected on the extent to which students developed teamwork and collaboration skills, noting, “My students learned how to work in a group way more than a regular project. In part, because it was open-ended. A couple groups planned it out and had to throw it away because it wasn’t going to work – they went back to the drawing board. They also reassigned roles based on each other’s strengths. Just because you’re assigned something doesn’t mean you’ve done enough — maybe you need to do something else to pitch in. They figured out the workload as they went and shifted responsibilities around.” The collaborative nature of the production process was a key highlight in student and teacher comments.

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76% of educators reported that their students increased their facility in taking the perspective of others.

84% of students reported that they became more open to and curious about other people’s perspectives.

76% of educators reported that their students improved in their ability to communicate their ideas to others.

71% of educators reported that their students became better collaborators.
4. Personal Meaning and Pride

They bring kids in at lunch: ‘Check out my VR video!’ ‘You made something in VR?! How’d you make something in VR, how’d you do that?!’ ...There’s definitely a nice sense of pride that shines from those kids.” - Teacher

Surveys and interviews clearly indicated that students found personal meaning in the project, and took pride in their finished media. The prompts invited students to produce media that held personal relevance, a factor that several participants highlighted as a motivating factor in their projects. For example, some students decided to focus their story on the effects of bullying after a friend who had been bullied committed suicide.

According to another student, “At first we just wanted to do something about race and diversity, and I think it went a little bit deeper when we started talking about our personal stories. When we got personal and started talking about some of the things we have gone through, some negatives, and some positives and finally accepting who we are as people, I think that’s when we really found the video...We wrote a massive amount! Every single person wrote a page and a half trying to figure out exactly what we wanted to say. We sort of narrowed it down to exactly what being in this county, in this state, meant to each of us.” A number of other students echoed that they used the project to explore topics of personal importance, and they were proud of what they produced.

5. Motivation and Persistence

We put in a lot of time...I think 6 drafts. That’s how much work we wanted to put into this. We wanted this to be something good and not just a school project that you turn in and get a grade because you show effort.” - Student

Participants shared that they felt highly motivated during the program, and persisted through challenges to produce a final product. In students’ reflections, this motivation was often connected to the personal meaning and pride that students found in their work.

One student’s comment exemplified how the project appeared to be intrinsically motivating for students, as compared to traditional extrinsic motivators like grades. “I realized that if I put my mind to it, I knew I could do it. Other classes don’t give the same sense of gratification. I don’t feel the same sensation when I finish an essay that I do when I finish a video. I put so much more work into a video than I do into an essay because I feel that my videos represent me and my essays just represent some student trying to get good grades and go to college.”

94% of educators reported that the 360 Filmmakers Challenge had personal importance for their students.

72% of students reported the 360 Filmmakers Challenge was more interesting than other school projects.

83% of educators reported that some students who were not typically engaged in class became focused in the 360 Filmmakers Challenge.

94% of educators reported that students worked on the project outside of class time.
Digital Promise Global identified five groups of student producers to profile in behind-the-scenes video stories. These stories echo a number of the key themes mentioned above, as students reflect on the meaning of their media, their pride in producing it, and their goals for the future. Click on each link to watch the videos.

**360 Stories: Borderline** - A story about one student team’s 360° film on immigration, and where they plan to go after graduating high school.

**360 Stories: Breaking Barriers** - A student film about social anxiety made an impact on a high school guidance counselor.

**360 Stories: Raised by Charlottesville** - A story about growing up and leaving your hometown, including an original song recorded for the purposes of the film.

**360 Stories: The Fakes** - A story about bullying that stems from the student production team’s own experience.

**360 Stories: Drama Community** - A perspective on what’s involved in putting on a theater play, and how participating in drama productions builds community.

“I’ve shown [my 360° video] to a few of my friends as well as a teacher I didn’t know before. **Watching their reactions, being amazed by the technology but also being amazed by what I was trying to present with the drama was very energy-boosting.** It was very cool to see and go ‘I did that, I brought that person’s amazement out.’” - Student
Educators

Although educator outcomes were not a primary focus for documentation, three noteworthy themes emerged.

1. Supporting student autonomy

Research shows that opportunities for autonomy can help increase students’ motivation and self-regulation. Nevertheless, projects that give students autonomy can be challenging for educators to manage at the outset. The program is designed to offer a high degree of autonomy to student participants, and our documentation suggested that participating educators became more confident with student autonomy in projects.

82% of educators reported increased comfort in leading projects in which students have a high degree of autonomy.

2. Managing media production

One of the many ways that educators can support active and creative use of technology is through media production across disciplinary lines. Some educators involved in the project were already experienced video production teachers, although 360° video was new to them. Many other educators had little or no experience with media production. Altogether, educators reported that their confidence in leading video production grew during the project.

71% of educators reported an increase in their ability to lead students through the video production process.

3. Understanding students

The reflective survey did not include questions about perspective-taking from an educator perspective, but the subject came up a number of times in conversations. Several educators shared the impact of the program on their own perspective-taking and empathy in relation to their students. As one educator noted, “I’ve been teaching 26 years and I really establish a strong relationship with my kids. What was interesting about this project is that I really got to know them even better.”

Monticello High School, Charlottesville, VA

“360 really does let you put someone in your shoes and I think it’s actually helped me as a teacher develop a little more empathy for them.” - Teacher
Program Design and Implementation

A primary goal of the 360 Filmmakers Challenge documentation was to help Digital Promise Global to continuously improve the program, and to gain insight into which aspects of the program are most beneficial. Program observations revealed three aspects that appeared to be particularly valuable to participants.

Value of the Challenge Prompts

"It kind of brought to light these topics and issues that [we] felt were important, so I felt like it started more communication — you know, why is that important to you? Why is that something you feel everyone needs to see, or how can you produce that in a way that makes me understand it better?" - Student

Interviews underscored the role of the Challenge prompts (share what makes your community special, inspire action for positive change, or help people learn something new) and the importance of students being able to create with a purpose about issues they care about.

The prompts’ community focus helped teachers to become more aware of their students’ lives, and helped students to become more aware of what’s special about them and to find value in their own story.

Value of Creating for an Authentic Audience

"It wasn’t just for me – the chance to be put out there, not just to win a contest but to be seen by other people. The fact that this was 360° helped to motivate them and to really want to work on it. They saw the importance of it." - Teacher

"It makes my job easier as a teacher because if they know it’s for a public audience they tend to do a lot better and push themselves a little bit more." - Teacher

The 360 Filmmakers Challenge also includes a final competition element, which was an influential feature because of the possibility for student-produced films to reach a broad audience beyond their schools and communities.

Additionally, both teachers and students acknowledged that the competitive aspect played a role in their overall engagement.
Value of the 360 Technology

One thing they really loved about it was to be able to work with such cutting-edge technology. They thought the 360° cameras were just the coolest.” - Teacher

The wonderful, astonishing thing about 360° video is that it places you in any past event or any memory or place and you’re really there, you’re basically reliving it, you’re reliving the experience. That’s what fascinates me about the 360° video.” - Student

Participants noted the value of the 360 Filmmakers Challenge in providing students access to a cutting edge technology. Excitement for the technology itself, and recognizing the unique opportunity to access special equipment, was a theme echoed by everyone involved.

The school system doesn’t value certain intelligences and qualities in people. We’ve been coaching these kids that if you’re not acing your AP classes or checking those A through G boxes, it’s not valued. [In the 360 Filmmakers Challenge] you’re acknowledging and valuing something outside the standard school system. I’m not saying that other stuff isn’t important, but we tend to overvalue it.” - Teacher
Program Lessons

The program documentation also surfaced a number of recommendations and lessons learned. We share three of these to help future participants to succeed, and we will also seek to take them into account in future program design.

Preparation and Experimentation with Technology

With new technologies inevitably come new challenges and obstacles to overcome. School systems often have firewalls and other restrictions in place that are incompatible with requirements for viewing media and video editing, particularly in a mobile app designed for a VR headset. It also takes time for participants to get used to the workflows required to operate new equipment and manipulate video files.

Teachers recommended substantial preparation to test drive the technology prior to introducing the project into the curriculum. During the project, they recommended developing scaffolds for students to navigate the steep learning curve. At the same time, teachers recognized that some students might quickly develop familiarity with the technology, and should be leveraged as resources for other students still struggling.

Time Management

Students in particular noted that they needed to be vigilant about their time management and project planning in order to complete their films.

Educators also observed that time management can be a challenge when student teams progress at different paces.

Student:Technology Ratio

Educators had different recommendations for the amount of equipment needed for all students to participate in filmmaking. Participants noted that it can be difficult to meaningfully engage a large group of students in a video production process with a limited set of equipment.

Only one student can use a headset at a time, and during production time, limited access to cameras can become a bottleneck. At the same time, other educators observed the benefits to having students work in groups and divide tasks among the group.
Conclusion

Creative production with emerging technology is possible in many school contexts and for all learners. To close the Digital Learning Gap, it is necessary to provide all learners with these opportunities, and the 360 Filmmakers Challenge is one example.

In creating 360° video stories, students can learn about the production process, develop important skills such as communication, collaboration, and perspective-taking, and discover new career possibilities and passions. Authentic projects with a real-world audience can also help increase students’ motivation, persistence, and pride.

In future project design, implementation, and evaluation, we will work to leverage these themes, explore the impact on teachers and students, and find effective ways to support participants as they grapple with new technology.