YOUTH MOTIVATIONS FOR OPEN PORTFOLIOS

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Open Portfolio Project

Why Do Youth Share Their Work?

Portfolio assessments have typically been used in settings where adults traditionally drive portfolio construction, especially in school-based settings (Niguidula, 1993; Mills, 1996). Consequently, one of the key challenges for applying portfolio use in out-of-school settings has been the extent to which scaffolds are needed for youth to get started with a portfolio and to commit to creating and sustaining a portfolio of work over time.

Furthermore, while some youth in out-of-school settings are building large communities with thousands of followers around their online portfolios (Peppler et al., 2015), we know little about the youth's motivations for creating such portfolios, the extent to which they align with adult motivations for supporting portfolio assessments, or the extent to which we may be able to leverage these motivations in widespread portfolio assessments.

Taking a sociocultural and situative approach to motivation, which focuses on the way an activity is organized to support the engagement and participation within social circles and larger society (Hickey, 2003; Nolen et al., 2015), we examined youths' motivations for capturing and sharing work in maker education sites previously introduced in our Research Brief series. Together, this series of cases exemplifies a range of youth motivations for open portfolios across school and out-of-school settings and how these youth motivations unsettle assumptions of traditional assessment (see Research Brief "Introducing Phase 2 of the Open Portfolio Project: Assessment in Makerspaces"). We refer to open portfolios as publicly shared and youth-owned bodies of work that present the rich engagement of youth while making. By better understanding youth motivations for portfolio creation, our aim is to improve portfolio assessments in- and out-of-schools to make them more appealing to youth *and* to serve adult and youth purposes for portfolio assessment.

Uncovering Youth Motivations

In our field site visits, we asked a number of youth recommended by site educators to share with us how and why they captured their work, looking for noteworthy portfolio practices that were adult scaffolded *and* immediately meaningful to youth. Twenty-nine youth (15 girls and 14 boys) showed us their favorite projects and explained how they made them, what they learned, and how and why they captured their work. Across these cases, we identified recurring youth motivations for documenting and sharing their work, including their desire to (a) participate in and be recognized by communities outside the makerspace, (b) emulate professional production practices, and (c) try roles that could be taken on after leaving the makerspace. Youth who demonstrated these motivations consistently captured their making in exceptional ways well beyond the adult-scaffolded instructions for portfolio creation. Here, we share how these motivations were supported by design practices that can be used to facilitate similar portfolio engagement to a larger number of youth.

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MOTIVATION 1: SEEKING RECOGNITION FROM COMMUNITIES OUTSIDE THE MAKERSPACE

Today's youth are acutely aware of how platforms like YouTube, Reddit, and others can be leveraged to research their interests and engage in dialogue with others who share those interests. Since one of the driving factors for this generation of youth is that they're contributing to something larger in society (Cohen & Kahne, 2011; Kahne & Middaugh, 2012), it comes as little surprise that many youth have an interest in infusing their ideas into public discourse, as well as gaining inspiration and recognition for their work. In the following, we present an example of youth motivations for seeking recognition and how this was possible through concrete design features of their portfolio practice. Table 1 provides an overview of youth motivations for seeking recognition and open portfolio design features.

Table 1: Motivations and Design Features to Increase Participation Beyond the Makerspace

YOUTH MOTIVATIONS FOR SEEKING RECOGNITION	OPEN PORTFOLIOS DESIGN FEATURES
Participate in online communities outside the makerspace.	Support and encourage the use of popular platforms that youth already use and are widely adopted.
See others recognize their projects.	Visualize feedback about portfolio engagement in real time (e.g., likes, views, comments).
Contribute to a larger project and a social cause.	Highlight how individual youth projects, or projects in aggregate, speak to larger circulating ideas.
Explore community, disciplinary, and transdisciplinary connections of projects.	Encourage and support the youth-driven use and intersection of several online spaces for sharing.

Recognizing the importance that youth placed on participating in online communities that connected them with people who were engaged with similar things, the out-of-school makerspace, Digital Harbor Foundation (DHF), encouraged and supported youth to share their work on online platforms that are commonly used in connection with certain types of media, such as deviantart.com for visual arts and graphic design.

One DHF participant, a 13-year-old named Rapha, leveraged a number of sites to showcase his work, citing that he was interested in three forms of production—graphic design, 3D printing, and robotics using microcontrollers––and he was better able to mark his progress and receive inspiration and feedback by targeting these audiences separately. In his case, he was in the process of curating portfolios across three sites: a page on Tinkercad for his 3D printing designs, a page on PicsArt, a social networking site for his graphic design, and a page on DHF's adult-scaffolded WordPress page for STEM-related projects he completed at the DHF makerspace. Rapha believed that sharing one's work "helps create and enhance a community." The reciprocal motivation for sharing suggested that he considered sharing a 3D model as a step toward and perpetuation of a larger societal cause, and that he assumed others who engaged in similar piece-by-piece sharing participated toward the same end.

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One of Rapha's colleagues, Clara, leveraged existing online communities to advance a broader societal cause: the advancement of girls in STEM disciplines. Clara created a public Facebook page to "help break the gender gap" (see Figure 1, left). She started a separate page rather than share on her personal Facebook profile because she was concerned about oversharing with friends who weren't interested in the topic. Clara created a light-up prom dress that integrated a programmed LilyPad Arduino and an LED strip into the dress design. That dress was featured on popular maker-themed blogs and online sites of a youth fashion magazine as an example of a new wave of reimagining engineering and women's role in technology-related fields.
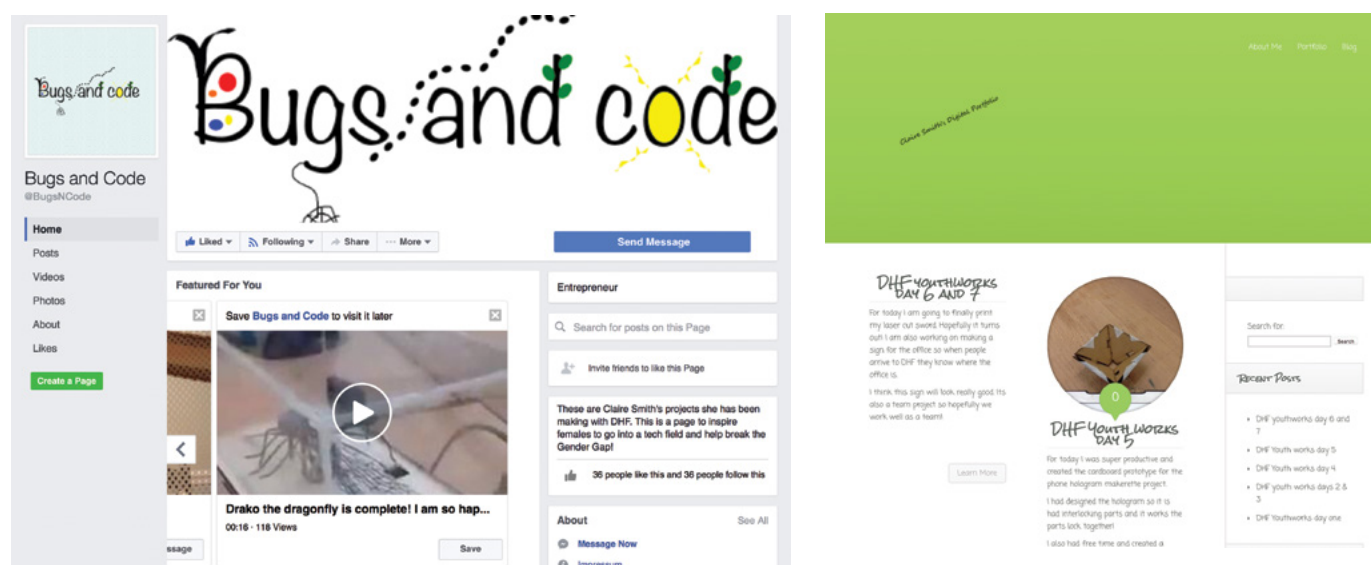
Figure 1: Clara's public-facing social media page (left) and Clara's DHF portfolio (right)

While some of Clara's projects were prompted by DHF activities and programs, she often went above and beyond expectations, using making as a way to showcase her interests and inspire others to do the same. Her Facebook page and features on popular online blogs especially demonstrated the initiative Clara took to spread her work to a broader audience and support a cause she believes in through her making. This kind of public-facing orientation to making showcases Clara's interest in building communities of girls to connect with and inspire.

Whether sharing their projects to support a social cause or targeting sites for specific feedback about a particular form of making, both cases indicate the power that a narrative plays in tying together smaller projects (e.g., a digital image) and, in accumulation, speaking to larger ideas. Highlighting and encouraging this can be motivating and a way to sustain capturing and sharing as a long-term activity. Furthermore, the use of multiple online tools for capturing and sharing projects allows youth to explore boundaries among communities and disciplines and to see how their projects speak to, disrupt, or intersect these boundaries. Design features to support this can be youth-led mixing and matching of online tools while continuing to track what youth share and where.

It's also worth noting that the prospect of engagement from others appeared to be an inherently motivating factor in terms of where and how often these youth shared their work. For instance, aiming to publish one image every day, Rapha uploaded 161 images to his PicsArt graphic design page in five months. At the time of our visit, he had a total of 313 followers, and many of his uploads had garnered thousands of views. Comparatively, on the adult-scaffolded DHF WordPress page, Rapha posted 14 entries within one year and neither received comments nor could easily determine if anyone regularly visited or followed the page.

MOTIVATION 2: EMULATING PROFESSIONAL PRODUCTION PRACTICES

For young or novice makers, scaffolding some of their earliest experiences by modelling professional work can be highly motivational and can push the boundaries of teachers' original conceptions of what a portfolio should include. Carving out a personally meaningful and interest-driven space can help them make decisions regarding how and when they publish their work, while fusing portfolio practices learned in school with youth-driven sharing moves they pick up online. In the following, we highlight a case in which this motivation was particularly salient and we present how youth motivations around this theme were supported through portfolio design features (see Table 2 for a summary).

Table 2: Motivations and Design Features for Emulating Professional Production Practices

YOUTH MOTIVATIONS FOR EMULATING PROFESSIONAL PRODUCTION PRACTICES	OPEN PORTFOLIOS DESIGN FEATURES
Explore portfolio practices in a youth-driven account and imagine new projects and ways of sharing.	Model portfolio practices that can be used across spaces for sharing (e.g., privacy, consistent sharing). Foster capturing and sharing at own pace.
Connect with authentic audiences and see examples to emulate.	Support the use of tools that connect youth to people with similar interests.
Make personal interests meaningful.	Support ways to reflect on personal interests and to integrate reflection on design processes in a final product to meaningfully connect with an audience.
Share personal interests with others as an economic means.	Introduce youth to portfolio features and platforms that could professionalize their making.

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A youth portfolio case from High Tech Elementary Chula Vista (HTeCV) highlights a particular way in which a young student shared his work in school and out-of-school settings. A 3rd grade student with interests in photography and video games, Mateo captured his work in the HTeCV portfolio (Figure 2)—including videos of his goal presentations, Google drawings of field site visits, and monthly reflections—by following his classroom teacher's instructions. Mateo also used personal social media accounts to share his passion for video games through recordings of himself playing the games. Across both digital portfolio spaces, Mateo brought together the school practices of capturing learning with home culture, including everyday experiences and video game play. Mateo's capturing was motivated by the possibility of building on his personal interests.

Figure 2: Mateo's High Tech Elementary Chula Vista portfolio homepage.

Beyond the HTeCV portfolio, on YouTube, Mateo shared video recordings of videogame walkthroughs with voiceovers. Since establishing this account, he uploaded seven videos with an average length of six and a half minutes. Mateo's channel had five subscribers and a total of 78 views. Mateo told us that he viewed videogame walkthroughs by others, and in his own videos, he comparatively referenced other channels.

We observed that Mateo internalized and adopted the common practices of active YouTube personalities. For example, he frequently called for viewers to subscribe to his channel. In several videos, Mateo directly addressed the audience using phrases that are common to the genre, such as anticipating comments (e.g., "I know what you guys are going to say in the comments"), greeting and signing off (e.g., "Hope you enjoyed the video. Peace out."), and editing the video to erase irrelevant aspects and to introduce humor (e.g., "So right now, I am going to cut out a bunch of footage as I am making stone so you guys don't have to watch me. I'll be right back - Guys, I am back.").

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The recording of the videos is a generative practice, as it inspired Mateo to think up additional recordings he could produce (e.g., a "fails video") and alternative ways of producing them. Another aspect of Mateo's YouTube portfolio is related to sharing videos and gathering views and subscribers in order to make money. He shared with us:

"Yeah, I put ads on them because that's how— That's like the main reason. That's how you make money. (…) you advertise things and so they pay you. They pay you a few cents when you put them, but they pay you more when people actually click on them."

Through the advertisement feature on YouTube, Mateo was aiming to utilize his personal interests and portfolio to earn money. He was aware of the mechanisms around how raising money through views works. He further told us that he learned how to implement ads on his videos by watching instructional videos. Mateo also explored other ways to gather viewers, including leaving comments on his own videos to start a discussion.

Through experimentation, Mateo also became aware of the policies and practices related to intellectual property rights and their effects on openly sharing his media online. Mateo mentioned that he didn't overlay his walkthroughs with commercial songs to avoid being flagged and removed from the site. The sharing on the site provided Mateo with an opportunity to learn about the complexities of copyright and the potential repercussions that violations would have on his own YouTube account and, by extension, his anticipated income.

In this case, Mateo appeared motivated by exploring portfolio practices in a youth-driven account and imagining new projects and ways of sharing. Furthermore, he was motivated by the possibility to connect with authentic audiences that shared examples of the kind of work he was interested in and could emulate. The way in which he was able to interact with this audience afforded Mateo the ability to integrate reflections on his design process in his final product as he connected with his audience, rather than his reflections being a separate aspect of his work disconnected from an immediate purpose.

Lastly, Mateo was motivated to further develop his portfolio through the possibility of turning the sharing of personal interests into an economic opportunity by supporting the use of features and platforms that could professionalize his making. Across the board, the capturing and sharing of work within school-based and out-of-school-based portfolios supported Mateo in meaningfully integrating his school learning with something he deeply cared about and was personally driven to do.

MOTIVATION 3: PRACTICING ROLES THAT COULD BE TAKEN ON AFTER LEAVING THE MAKERSPACE

Online, where artists with millions of followers share their work alongside aspiring young artists, youth can explore the multiple ways in which their work can be shared and represented. Many youth we spoke to were motivated by how their making is connected to their exploration of the broader media production pipeline, including post-production and cross-platform sharing, particularly those interested in the arts.

When makerspaces encourage youth to explore how artistic interests can be presented in different ways through the possibility of setting up multiple accounts, youth become motivated to explore sharing in the open and sharing semi-privately in connection with a larger collaborative effort, such as a maker collective or a band. Similarly, maintaining accounts associated to groups and individuals is a way for youth to choose how they'd like to engage with an online space and how openly to share their work.

In the following, we present cases of youth using their portfolios to practice what it might be like to be part of a production process and what this might entail for broader practices related to digital citizenship. Table 3 outlines the youth motivations for this and connects them to concrete design features of portfolio practices that can foster them.

Table 3: Motivations and Design Features for Trying New Roles

YOUTH MOTIVATIONS FOR TRYING NEW ROLES	OPEN PORTFOLIOS DESIGN FEATURES
Explore the complexity of the media production pipeline.	Support multiple accounts in professional online spaces.
Experiment with sharing both in the open and semi-privately.	Facilitate and maintain accounts associated with groups and individuals.
Be recognized as a responsible member of society.	Advocate for and amplify youth voices through transmedia productions that contain the makerspace brand.
Highlight the professional skills of all collaborators.	Support a range of modes to augment a project's message (e.g., music video for a song).

Two youth portfolio cases from Monticello High School illustrate how youth took ownership of the portfolio process. Myriam, a 10th-grade student passionate about digital music production, shared her original compositions on SoundCloud and YouTube, a common practice for most of today's recording artists. A challenge in the showcasing of her work was the often-collaborative nature of many of her productions, with her role in its creation—as musician, lyricist, songwriter, or co-writer—shifting from track to track.

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Myriam has two SoundCloud accounts, one personal and one shared account for her band, which intersect in interesting ways. For example, Myriam uploaded a song to her personal account that was later reposted by the shared account. While Myriam explained that the song was not created by herself alone, the way in which it was shared on the personal account attributed the composition to her. Without access to her additional explanation, the collaborative nature of the production and how Myriam and others divided responsibilities in the creative process were neither visible on her personal nor her band portfolio.

For Myriam, this wasn't a matter of taking or ceding ownership. Instead, the two accounts provided Myriam with the possibility of exploring and negotiating the nuances and social implications of representing songs as part of her solo-artistic explorations or as part of a shared project. This can open up questions related to copyright, attribution, and possibly the invisible work it takes to be "internet-famous." In Myriam's case, having more than one online account on the same platform for similar kinds of creative projects facilitated the exploration of these cross-cutting conundrums.

One of Myriam's classmates, Connor, also captured his creative projects across multiple online platforms that supported different media types. A senior in high school interested in rapping and producing (under the name Sophist), he sought to increase the exposure of his tracks by posting his compositions to SoundCloud, which was cross-linked to his YouTube page for music videos and accompanying "behind-the-scenes" supplementary material (see Figure 3). Connor further disseminated links to assets on both platforms via his Twitter account.

A driving force within Connor's work was commentary on current events. In one track addressing police brutality, Connor interlaced video footage of national newscasts as well as an excerpt of a speech by President Obama into his rap verses. Framing artistic media production as an empowering way to make his voice heard, Connor took a critical and democratic stance that was purposefully directed toward showing himself as a responsible member of society.

Connor's message was that media production that is openly shared online can make voices heard that were previously not. The audience he sought to reach lay beyond the school; Connor aimed to reach people outside high school who were interested in finding a way to express themselves and their messages. Educators at Monticello supported his efforts by sharing and re-sharing posts by and about Connor's work. Monticello's academic counselor, the athletic director, the school's basketball team, and school district administrators linked to his work, praised his creative production, and shared selfies with Connor while he live-mixed event music.
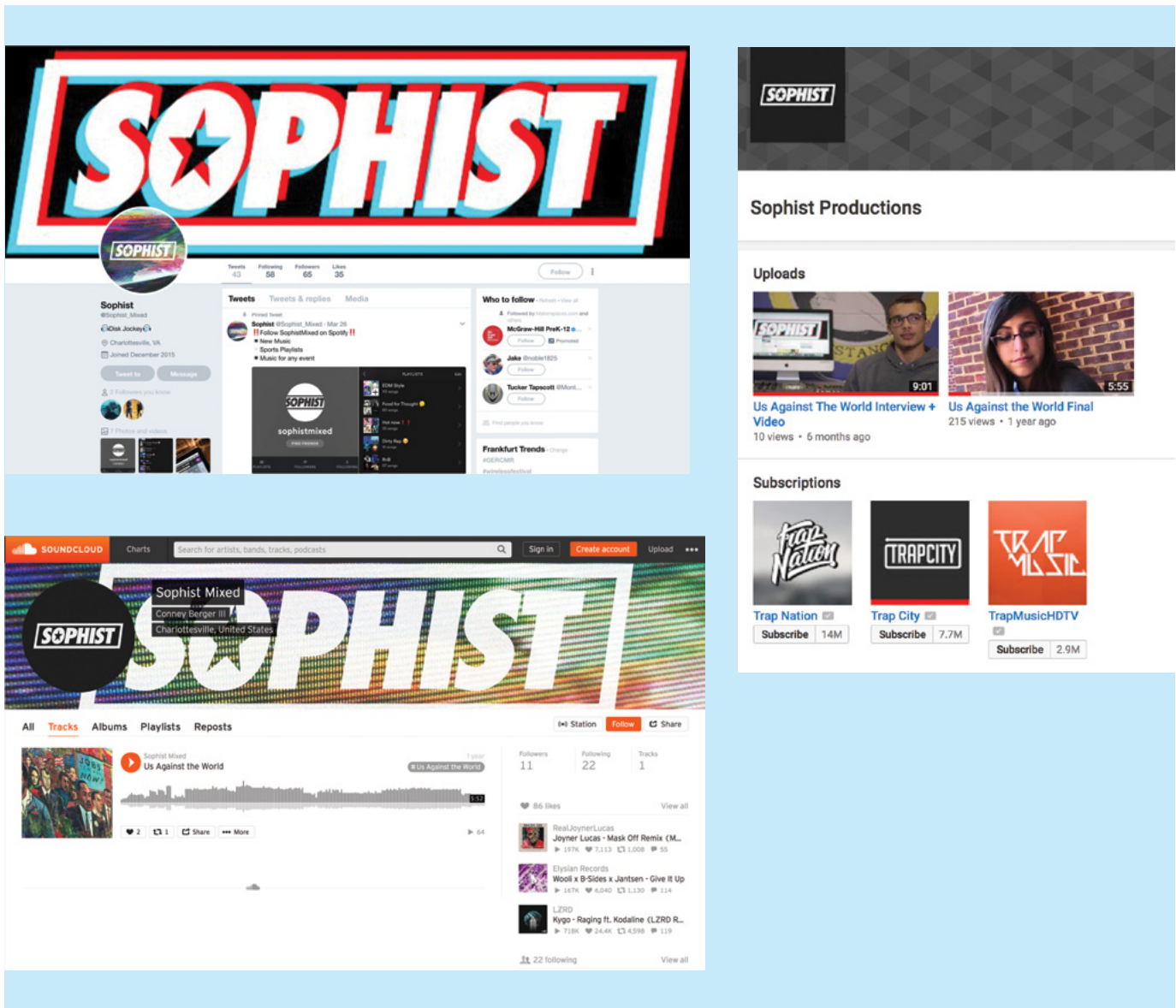
Figure 3: Connor's digital portfolio across social media accounts.

These two cases indicate that youth were motivated to document when the documentation tools afforded them recognition as responsible members of society (e.g., Connor's critical and democratic stance) and to highlight professional skills of all collaborators as a way to differentiate their skills and contributions (e.g., Myriam's shared and personal accounts). The chosen tools supported a range of modes to augment a project's message (e.g., audio recording and music video for a song). Uploading and sharing with multiple tools and different types of media supported a range of modes through which messages of one medium could be underscored and new messages could be layered onto the initial production.

When the school acted similar to a music label by advertising artists, they amplified the youth's roles in society and highlighted the school's role in producing such students. Advocating for youth voices and highlighting youth work via social media recognized youth efforts and their contributions to a larger community. Together, this afforded youth the opportunity to explore their musical identities in the open while at the same time keeping one foot in the safe, monitored makerspace.

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Summary

The examples in this brief illustrate how youth were motivated to work on their portfolios, particularly when their work intersected with people and activities *outside* the makerspace environment. This helped them to try out new roles beyond the makerspace while being connected to the familiarity and security of the local setting. In out-of-school environments where participation is voluntary, this meant identifying ways to make portfolio creation immediately meaningful to making. At the high school makerspace, youth were motivated to document making when portfolios supported them trying out who they could be beyond school, including exploring copyright implications and different ways of sharing. Lastly, at the elementary school, where youth might first be introduced to sharing work online, they were motivated to capture their work in ways that strengthened connections across learning environments and to share when they could practice adult-driven portfolio principles while simultaneously earning money.

Where youth's media-production interests, such as music creation, may more easily lend itself to access to professional examples, other areas of interests, such as biology, might be less transparent outside of the makerspace. There's a need to consider how these youth motivations may be leveraged for engagement with professional examples more equitably across diverging interests. All of the portfolios highlighted here are variations on site-specific leveraging of portfolio software and practices. The variety shows how vastly different or similar individual portfolios can be in relation to the system and practice. Analyzing the inherent motivation that youth have to capture and share their work can inform future design of portfolio practices and tools that support youth in making portfolio creation immediately meaningful to their learning.

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