



Open Portfolios

MAKER EDUCATION INITIATIVE

National Working Group Meeting Summary

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The Maker Ed Open Portfolio Project: National Working Group Meeting Summary

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Maker Ed’s Open Portfolio Project has been fortunate to have an incredible National Working Group (NWG) function as an advisory and sounding board throughout the course of the project. The group spans a wide range of backgrounds and expertise, from educational research and school management to fine art, design, engineering, and technology entrepreneurship. Members of the group (see Appendix C) join in on monthly calls to hear updates, share their own work and developments, and provide insights into the progress of the project itself. The NWG also serves to further extend the impact of the project by exposing the work to the greater community while simultaneously integrating the community into the process. Their engagement and input have led the project to uncover new insights, connect with key partners, and better gauge the pulse of the greater maker education and maker portfolio communities.

When twelve NWG members convened in-person in November 2014, along with the core team from Maker Ed and Indiana University’s Creativity Lab, key staff from Maker Ed, program officers from the Gordon and Betty Moore Foundation, and special guests and speakers, the intent of the meeting was to not only share project findings but also to take measure of how the thinking around maker portfolios has grown or changed. With so many different perspectives and experiences in one room, some of the discussions took on a new light, and many informed the potential future directions of the project and research.

EMERGING THEMES

Across the many breakout sessions and conversations from the meeting, it was evident that all who gathered together were convinced of the vast potential that open portfolios can bring as an alternative to traditional assessment practices. When the project first began in late

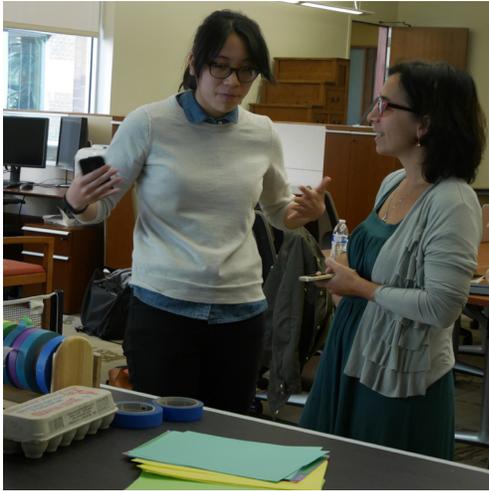
2013—with much of these understandings and context exhibited in the first research brief, “A Networked Vision for Sharing and Documenting”—it was noted that open portfolios offer an opportunity for individuals to showcase their abilities and express themselves through the use of diverse, wide-ranging digital tools. While this belief still holds true, the emerging themes uncovered in our work reveal ongoing challenges and an evolution of focus.



Sparked by preliminary analysis from research surveys and field visits, as well as a compelling keynote address from Chris Peterson, currently with MIT Admissions, and Dr. Dawn Wendell, formerly of MIT Admissions and current MIT professor in Mechanical Engineering, the meeting participants embarked on a series of conversations centered around five themes: process, engagement and social motivation, identity, assessment and transfer, and equity and diversity. The first four themes were pre-determined topics for discussion, culled from field site findings and conversations. The fifth, and perhaps most important, theme emerged from a preliminary brainstorm of key questions and topics from NWG members.

PROCESS

In small groups, participants discussed each of the themes, sometimes addressing a suggested question head-on and other times wandering across all tangents of the topic. For the theme of “process,” the key question used to prompt discussion was: How might a youth maker begin, develop, and cultivate a portfolio of work that captures not only the final, refined products but also the process of creation and their development as makers?



In assuming that portfolios can indeed function as showing process and not just final products, it became clear that the experience of making and documenting needs to be carefully designed. As a designed experience, the act of creating a portfolio, or of capturing the process of making, encompasses not only the necessary or useful tools but also the space, the people involved, the environment, and ambiance. When facilitators and mentors are trained and available to guide youth through the experience, youth are prompted and supported to make, to document their making, and to share. A well-designed experience affords youth the skills and time to create a portfolio that serves as a documentation, iteration, and critique space. In turn, open portfolios can also become artifacts, separate but linked to the original product. And those portfolios may reflect the different interests and stances that a child naturally has, whether focused on aesthetics, fine-tuned skills, or function.

ENGAGEMENT AND SOCIAL MOTIVATION

Another theme was “engagement and social motivation” with a guiding question of “What compels a youth maker, maker educators, and makerspaces to create portfolios, share them, and continue to develop them throughout

the learning process?”

The group talked through the many different factors that motivate youth to create maker portfolios: program or teacher expectations, standards set by peers, an on-line presence and identity, among others. Changing a portfolio’s audience may change its curated content, and youth may engage in portfolio design and development for a specific future purpose, to impress prospective job employers or college admissions offices. Of note, it was highlighted—both in the meeting and in site visits—that portfolios can also be seen as part of one’s social responsibility to contribute to the growing knowledge of a community. Makers share their successes and struggles, and those learnings strongly advance the knowledge base.



IDENTITY

Equally as important and overlapping with many of the other themes was the question of identity, specifically “How does the curation of a portfolio contribute to the shaping of identities, whether of an individual youth maker, a community, and/or a space?”

Early on in the project, it was recognized that open portfolios allow youth to curate and create their own identities. Yet, it remains to be understood how to—and if there is a best approach to—evaluate the identities presented. Short of that, researchers and practitioners debate the best tools to enable one to create an online version of oneself, as well as how to maintain and control information flow. Future work may include a deeper investigation into how portfolios reflect maker culture and youth culture, and vice versa, along with the development of practical tools to help communities consider the value and impact of portfolios.



ASSESSMENT AND TRANSFER

The discussion around the theme of “assessment and transfer” pulled out some of the biggest questions—many of which inform our future work on open portfolios—that bring together many of the themes and investigate the ultimate purpose of portfolios.

EQUITY AND DIVERSITY

Participants also brought up the theme of “equity and diversity” as critical to the conversation around open portfolio implementation. If it’s believed that maker portfolios will be able to demonstrate what test scores cannot—and therefore enable youth from communities that are traditionally underrepresented (based on socio-economic status, gender, ethnicity, disability, or other) to step beyond the constraints of academic testing standards and show off their abilities and voice—our ongoing research must focus on these audiences and exist within these settings.

Our representations and definitions must also be inclusive and supportive of all groups and consider the many different opportunities that makers seek to engage with. Our research has thus far seen a wide range of portfolio engagement in youth-oriented maker programs and makerspaces. Some are just beginning to think about portfolios; others have it ingrained in their programs and expectations. If future project work can succeed at providing access and opportunities for youth to make portfolios and develop confidence in their abilities, we will have significantly impacted the wider education conversation.

FUTURE STEPS

These themes arose time and time again throughout the meeting, as part of hands-on making workshops where participants designed, prototyped, and documented solutions to each other’s travel challenges, and/or in break-out sessions that focused on narrowed areas. A significant portion of the second day of the meeting brought together participants in groups around three articulated questions:

DEFINE A PORTFOLIO: What are the different types, and what learning goals are associated with each type?

DESIGN A PORTFOLIO for the purposes of access and opportunity: What factors should be considered, and what tools could be used?

CREATE A LIFETIME PORTFOLIO WORKFLOW: What is different at various ages, and how is the portfolio valued (personally, in school, and out of school)?



Each of these discussions drew out and clarified existing assumptions about portfolio design and implementation in educational settings. For instance, it is generally believed that portfolios are a collection of work, though they may begin with a single project, and all deem access and equity to be an integral component of our research, leading to a more defined focus on it in future work. These conversations forced us to think about the most important aspects of this project and essentially, where this research can make the most impact.

We conclude this phase of the Open Portfolio Project, encouraged and motivated by the vibrant response and supportive community, all eager for progress and de-

velopments. Though this portfolio system is a complex endeavor, it is clear that it must serve a multitude of audiences, be open and adaptable to all stages and levels of curation, maintain an openness that is critical to the maker movement and youth agency, and be shared in a wide variety of formats. A sense of urgency is also palpable: the opportunity that maker portfolios hold cannot be taken advantage of fast enough, whether by informal education practitioners, in-school administration, educational researchers, or college admissions offices.

We look to move forward with this work, renewing our focus on facilitating the making of portfolios with youth

who may benefit most from alternative assessment. Their motivations, means of engagement, and needs will resonate across the wider maker and educational communities.

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