White Paper:
Creating the First Mini Maker Faire in Westchester County, NY
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Introduction

Makerspaces are a recent trend in education. With a foundation of constructivism, the philosophy of hands-on learning, educational Makerspaces are a useful tool that can revolutionize teaching and learning (Kurti, Kurti & Fleming, 2014). Makerspaces can be places for students to access a myriad of materials in order to create, collaborate, innovate, problemsolve, and tinker; skills whose presence in schools, especially in grades 9-12, has been reduced. Different models of Makerspaces can allow students access during free time, lunch, after school, or through their classes if teachers sign up to use of the space.

Fox Lane High School in the Bedford Central School District (BCSD) has created a room called the "ThinkSpace" which, when more materials arrive, will take on the function of a true Makerspace. Many other schools in Westchester County have also created Makerspaces in the past few years. One way to excite and educate students, teachers, and the public about the Maker Movement and to move it beyond a school-setting is to hold a Mini Maker Faire: an event in which the proposed Faire would be the first of its kind in Westchester County.

Problem

The Obama Administration has made STEM (Science, Technology, Engineering, Mathematics) education a priority since few students pursue careers in these fields. Data also shows that STEM-related careers will see significant increases between the years 2010 and 2020 (Science, Technology, Engineering and Math: Education for Global Leadership, n.d.). Maker Faires, beyond Makerspaces alone, can help encourage and provide opportunities for students, teachers, parents, and the general public to engage in hands-on, self-driven activities that could lead to future interest in STEM fields.

Makerspaces and Maker Faires not only allow users to dabble in STEM, they can also expose users to making in other disciplines such as art, music, history, and English language arts. Makerspaces and Maker Faires can serve to illuminate the role of creative, problem-solving across all disciplines, thereby generating buy-in from those who might have felt little connection to STEM or STEAM (Science, Technology, Engineering, Art, Mathematics).

Currently there is no official medium to large size, public Maker Faire event in the Westchester County area, as per Maker Media's Maker Faire "Find a Faire Near You" map: http://makerfaire.com/map/. The closest large Maker event is the World Maker Faire held at the New York Hall of Science in Queens, NY every Fall. Additionally, for the past two years, Barnes and Noble has held small Mini Maker Faires in their stores.

Solution

While the option to attend the World Maker Faire in New York City, or the small Mini Maker Faires at Barnes and Noble stores exists, starting a medium to large size Mini Maker Faire open to the public using the Maker Faire website's planning information would be an excellent opportunity. This particular Maker Faire could host tables of maker activities, crafts, and wares from larger companies, universities and colleges, but also reach out to the Westchester County public and private schools and provide them the opportunity to have their students showcase

their work. It is hoped that the Maker Faire's presence will encourage students to become more engaged in their school Makerspaces or be inspired to create at home. Through a Maker Faire and the overarching Maker Movement, there is a potential to bring together "techies and non-techies alike into the world of being creators" (Bajarin, 2014), thus hopefully disseminating the ideal that the Maker Movement is not solely about STEM or STEAM.

Collaborating with a local college or university as a host organization may be helpful in bringing this vision to reality, as they can assist with several different facets of planning, and possibly put forth some funding. Manhattanville College in Purchase, NY is a great choice as a host with its centrally located campus and beautiful grassy quad surrounded by academic buildings. The BCSD, where I teach, already has a connection with Manhattanville College's School of Education as a Professional Development School. A leadership team consisting of members from both institutions will help address all phases of planning (see Appendix A).

Conclusion

A Mini Maker Faire in Westchester County will help bring together students, families, and the public to enjoy and take part in the Maker Experience, while also potentially sparking interest in STEM and personal creativity. Local makers, organizations, and higher education institutions will educate attendees about making and provide many hands-on experiences. Additionally, by connecting with K-12 schools in Westchester, those students will be able to showcase their work. A Maker Faire will ultimately reach a larger audience than a Makerspace alone where everyone can benefit from the learning-by-doing philosophy.

References

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Appendix A

Action Plan

(Based on information found in Maker Media's How to Make a Maker Faire website and subpages: Vision, Planning, Guidelines, and Apply).

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July/ August	 Create leadership team of up to 10 people with participants from Bedford Central School District and Manhattanville College Discuss plans for a Mini Maker Faire on the Manhattanville College campus in June
September/ October	 Connect with "pledges" of support from community (higher ed institutions, companies and organizations, local makers and maker organizations) Connect with local K-12 schools
November/ December	 Plan a budget using Mini Maker Faire Budget Worksheet: https://docs.google.com/forms/d/e/1FAIpQLSf8WCvfJDdPr5_PWKSQ9 rpiln_WzFadi9RbtZvmCsL-ZNTNLQ/viewform
January/ February	 Seek and verify 35-70 makers and vendors Collect vendor/booth fees Marketing, promotion, advertising Book rentals (tables, chairs, tents, portable toilets if not using building restrooms) Complete permits and pay any necessary fees Order additional insurance, if necessary Plan food concessions
March/ April	 Order supplies for and hold "Maker Afternoon" or "Maker Saturday" workshops for adults and children who might like to be involved or showcase work at the faire but don't have the resources or a Makerspace at school Final communication with all makers and vendors with "Day of Event" information
May/	• Final logistics: Electricity, WiFi, map out locations, etc.

June	 June = Mini Maker Faire event (setup and breakdown) Send thank yous, post-event