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Interview with Lisa Stark

Lisa Stark is a recent MFA+DT graduate who is an artist and designer, engaged in challenging social and cultural, paradigms through playful interactions with technology. I first got acquainted with her work through her experimentation with soft circuits and integration of computational thinking and computer science in the classroom and in after school settings. I was captivated by her desire to foster innovation and creativity, by creating workshops in STEM (Science, Technology, Engineering, and Math) fields.

As an artist and a designer she combines her humanities background with an interest in physical computing, textiles, and open-source to create new digital metaphors with a critical examination of learning in the 21st century. I appreciate her efforts in creating learning activities through play, physical computing, prototyping, as dynamic solutions. Her research contributes to the growing movement of educators and designers who are reimagining what circuits and computers can look like and how they can act as a medium to transform learners and educators into Makers. As a designer I appreciate the approach to teaching and learning computational thinking and STEM concepts through craft steps. Although her work is not directly related to fashion design it is connected to a design thinking and conceptual approach towards learning activities. Ultimately my goal is to create an educational textbook, containing hands on practical assignments and activities and I can draw from her experience in weaving traditional craft techniques with smart materials to create new experiences that blur the boundaries between craft techniques and computation, and high and low and technology.

The following is my interview with Liza Stark:

Aneta Genova: What does fashion and technology mean to you?

Liza Stark: An opportunity to create new narratives that allow us to imagine possible futures and to gain alternative insights into the past. Fashion and technology both feel ephemeral. Because it is difficult to forecast the concrete outcomes of new trends in each field, there is a wide interstitial space for the imagination to play. Marrying the two exponentiates the space, breaks down walls.

I think we have a fascination with this intersection, perhaps because it offers us a problem space to discuss the humanization of technology in a very tangible way. Fashion has at once been a vehicle to explore dystopian cyborgs and also a method of gathering personal data to make better decisions about our lifestyles. It's a super interesting dichotomy between utility/aesthetic and realism/fantasy.

AG: Which technology do you think is most relevant for integrating in garments and or accessories? (Is it embedding technology, or using computational processes or anything else?)

LS: I think both are incredibly relevant for different reasons. Embedded technology allows users to gather and display data that push how we interact with the world. The use of computational processes in fashion permits new possibilities of personalization. Specifically here, I'm thinking of Nervous System and their work around tangibly incorporating generative design into fashion.

AG: Your work builds on the need for computational thinking and computer science in the classroom and in after school settings. Is design important in the activities you create and how do you integrate it?

LS: Absolutely. Design is central to them. I consider it an important point of access for learners who do not see computational thinking as relevant or engaging. By focusing on the design element, it creates a richer problem space for learners to explore, to reflect on, and to own. I try to design activities with the perfect balance of constraints to stimulate creativity. Combining fashion and technology offers numerous constraints for a learner to attack and focus on, whether aesthetic, electronic, material choice, interaction, or a combination of them all.

AG: What traditional crafts have you used in your workshops and which ones did you find most

effective in using with smart materials?

LS: It depends on the audience, but I would say copper tape and paper engineering. Everyone can make a fold and the tape is very stable for creating a point of contact. Since I mainly work with youth, designers, and artists who don't have an extensive background in electronics, the most important thing is to hook them. The quickest way to do this is by having them quickly create a functioning circuit. Once they have created a circuit using conductive fabric or thread, they start to understand the expansive opportunities for interaction and aesthetics that exist when you break a circuit. Sewing comes in a close second, with craft tape and fusible interfacing as a fantastic alternative.

AG: Soft circuits were a big part of your thesis. How do you see their role evolve in education and design?

AG: In education specifically, soft circuits play an important role in introducing learners to concepts of electricity and interaction. It is a way to un-(black)box technology in a non-threatening way, to get down to the physical nature of the technology that drives our lives. Additionally, it is a field pregnant with possibilities for self-expression, where static drawing becomes dynamic interaction. These are the types of creative experiences and projects that nurture 21st century learners.