Art as a Way to Explore Novel Interactions

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ABSTRACT

In this workshop paper we provide a brief overview of the ways that the iStudio Lab currently works with artists and art institutions in an HCI research context.

KEYWORDS

artwork, digital art, media arts

1 INTRODUCTION

At the iStudio Lab at Queen's University [1], we have collaborated with artists and art institutions in previous work, and are interested in delving into deeper collaborations with artists through means such as artist residencies. At the workshop, we are interested in learning from the best practices of others, while also sharing the ways that art practices and art contexts are currently integrated into HCI research at the iStudio Lab.

2 OUR PREVIOUS WORK

2.1 Learning from Art Practices: Artists as Participants

Devendorf et al. have discussed the ways that artists and craft practitioners have a wealth of technical knowledge that HCI can learn from [1]. In our work, we use the process of learning from arts and craft practitioners as a starting point for most of the research we publish in hybrid crafts and creativity. Especially in the area of e-textiles, there is so much that we can learn from individuals who practice textile crafts. For example, in recent work we interviewed folks who practice visible mending to better understand how we can adapt and add on to textiles we already own [2, 3], interviewed punch-needle artists to explore how we can more easily iterate with e-textiles [10], and interviewed goldwork embroidery practitioners to better understand how these practices that have developed over hundreds of years could inform our work today with metal threads for e-textiles [7].

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[1]https://istudio.cs.queensu.ca/

Figure 1: We often start our e-textile research projects by interviewing craft practitioners. For example, recent publications interviewing visible menders [3], goldwork embroidery practitioners [7], and punch-needle artists [10].
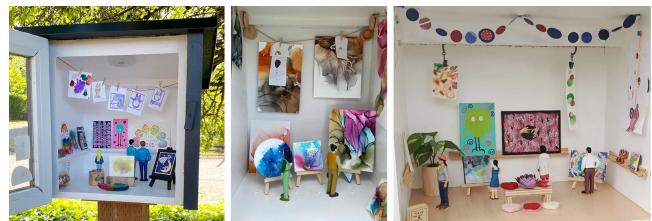

Figure 2: Three of our participants' Free Little Art Galleries (FLAGs) [9], which are small boxes for exchanging art and featuring art made by their community. The FLAGs have similarities including places to hang art and miniature patrons to look at the art. Images courtesy of Katrina Lyon, participant opted not to self-disclose, and Sarah Jerger.

We have also interviewed more DIY projects to learn from the arts for expanding participatory research in HCI. During the pandemic, we interviewed individuals who started up Free Little Art Galleries (FLAGs), which are boxes posted on the edges of an individual's lawn for the community to exchange miniature art pieces [9]. From these interviews we developed recommendations for how HCI can leverages these practice to bring creative making activities outside of the lab and to the people we want to engage in our research.

In these projects we've had to balance HCI's tendency to anonymize participants, and maintain participant confidentiality, with also allowing individuals to get credit for their creative work and creative contributions. Currently the way that we do so is providing the option for individuals to self-disclose for creative credit on submitted images and artwork examples. We are also interested in expanding on this and learning from other researchers on how they provide credit for participants' submissions to research studies.

Figure 3: The E-textile Stitch Sampler [4] being used for a workshop with artists at Union Gallery at Queen's University (Photo credit: Niki Boytchuk Hale).

2.2 Creative Workshops with Artists

Expanding upon interviewing individuals about their artistic practices, art institutions are also an interesting way of bringing the research back to the people who will use it, and exploring how artists would like to use these technologies in innovative ways. Over the past three years (though less so during the pandemic), Lee has run workshops at art galleries and arts organizations. Many of the research toolkits from her thesis on e-textiles scaffolds, for example, sketching ideation activities [8], e-textile constructive assemblies [8], and e-textile learning activities [4], have gone on to become workshops at art galleries across Canada. Though we haven't run studies on this yet, we enjoy seeing the ways that artists get creative with these technologies and really push what is possible! Overall we have found that arts institutions and artists are a receptive audience for creative hybrid crafts.

2.3 Researcher/Artist

Lee has exhibited several artworks in recent years with her collaborator Greta Grip [2]. Greta Grip is a textile artist who uses a hacked knitting machine, and Lee works with e-textiles and textile fabrication - so starting a collaboration seemed obvious! In our collaborations, we have focused on the ways that textile fabrication can be used to create textile data physicalizations. For example, using sensor data to knit a row on a knitting machine every time someone walks into the the Ottawa Art Gallery during the pandemic recovery year (2021-2022) [5], and another project where we created wearable knitted shrugs that visualized participants' heart rates during moments during the pandemic [6]. These interactive artworks using textile digital fabrication have been an interesting way to also explore how individuals make sense of them. During the exhibition of these works we have conducted user studies of individuals viewing the works for the first time, and have analyzed them for HCI publications [6]. In this way our role as researcher/artists overlap completely, and in discussions with Greta she also appreciates the value of documenting the work

²http://www.gretagrip.com/

Figure 4: Installation view of *The Life of a Building* [5], a commission of the Ottawa Art Gallery (July 2021-July 2022) (Photo credit: Justin Wonnacott).
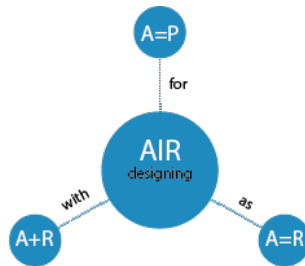

Figure 5: During the pandemic we gathered participant heart rates for *Wear Your Heart on Your Sleeve* [6], where we transformed their heart rates into wearable shrugs for machine knitting. This work was exhibited at the Mississippi Valley Textile Museum in Almonte, Ontario.

in archival ways, and we often submit these pdf publications as a way of sharing the story of past artworks in applications. The archival nature of our publications in HCI is increasingly of value due to the varying nature of gallery documentation, which is not always accessible, or at times taken offline once an exhibition has completed. We have also found that galleries appreciate learning about how viewers have received and interpreted the artworks, and they have so far always expressed interest in the research results and publications.

3 CONCLUSION

In our work at the iStudio Lab our research has overlapped with the arts in three main ways. The first is by recruiting artists as research participants, especially in the area of hybrid crafts where there is so much technical knowledge to learn from artists and craft practitioners. The second is is running workshops with artists and at arts institutions - this is an area we want to expand on in future work. The third is in merging the role of researcher/artist by developing an art/research practice where the work is interlinked with the research study that will be done on it. At the workshop we are interested in learning from other artists and researchers on how we can deepen and expand upon these practices.

Figure 6: Our perspective on working with artists in residence and designing things 'for' them (artists are participants), designing 'with' them (artists are collaborators with researchers), and designing 'as' them (researchers also identify as artists).

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