Project Title: The ArtiFACT Project: building bridges across cultures through digitally-enhanced, multimodal storytelling

Description & Goals

Across cultures, humans make, buy, find, share, or gift objects. While some objects are unique, mass production allows us to purchase indistinguishable objects to satisfy whims or fulfill needs. Over time, all objects take on new meanings as they remind us of moments, people, or places. ArtiFACT is a collaborative exhibit in which visitors scan barcodes affixed to 3D printed object replicas to hear the story of each item, as told by the person to whom it belongs. The ArtiFACT Project begins with workshops that pair communities across cultures to seed ArtiFACT exhibits with stories and objects. Participants bring a meaningful object to photograph and use 3D printers to create replicas in the form of lithophanes. They interview each other and record descriptions of their object's physical appearance, its personal and cultural significance, and a related memory. Initially conceived of by Aresty as a collaborative sound exhibit designed to build community through storytelling and making, with Fekete's and Reshad's investment of time, resources, and pedagogical innovation, the project has grown into an authentic language learning experience. In sum, the project uses digital tools to support experiential learning through community-based workshops that culminate in the collaborative creation of a multimodal storytelling display. The digital tools are therefore central to the language learning and relationship building as students and community partners are tasked to 'make something together'.

While digital technologies are already central to this project, we believe that enhanced digital resources could help to grow the project across iterations (for example, by creating a web archive that would allow students to become part of a community of past and future ArtiFACT project participants, and incorporating archival listening into the course design). We also can imagine a web resource that would allow educators at other institutions to participate in the project with limited investment of time and resources; for example, by embedding project code into an interactive website. Our goal for the CODEX institute would be to evaluate past project iterations and explore the possibility of development of enhanced digital resources to support the growth of the project across iterations and institutions.

Relevance to Curriculum

A key component of this project is providing a context for ESOL students from the Conservatory to engage in authentic language practice, make connections with native English speakers within Oberlin College and the surrounding community, and provide a platform for ESOL students to share their own stories and culture. The first iterations of the ArtiFACT Project replaced Fekete's pre-existing course module for ESOL 120 on interviewing native English speakers. Prior to the ArtiFACT project, students found someone on campus, conducted and recorded a 30 minute interview, and composed an essay report based on what they learned. By incorporating several different types of digital technologies to support the development of a collaborative, multimodal, storytelling exhibit, the ArtiFACT Project has elevated this course module into an experiential and collaborative learning project. The ArtiFACT Project provides opportunities for authentic language learning as students learn and then help to teach new technical skills, practice sharing stories, asking questions, and listening. The digital technology

we use supports language learning -- as students listen to their own recordings and those of their partners. The technology also facilitates the concluding exhibit, which helps to motivate students in their language learning activities since the outcome will be part of a public display or presentation.

This project is also aligned with broader institutional goals around inclusivity in STEM education (related to the recent Howard Hughes Medical Institute grant received by the College), as it introduces new student populations (ESOL students majoring in music in the Conservatory) to topics in technology and engineering. The development of a more fully formed version of this project will have a much broader impact in the context of a broader emphasis on hybrid technologies and multimodal storytelling that Aresty, in particular is pursuing as part of experiential learning opportunities in curricular, co-curricular, and extra-curricular contexts similarly aligned with HHMI goals. For example, like the ArtiFACT Project, Aresty's *What I Didn't Say* and *Hospital Bracelet* projects are both community-based creative projects that involve the creation of collaborative exhibits through collective storytelling, listening, and various forms of making. Any infrastructure built to support ArtiFACT would be highly relevant to these related projects and could help to inform their future development.

Team Members
Abby Aresty: Technical Director and Lecturer, Technology in Music and Related Arts (TIMARA): Duties include managing research assistants, assisting with fundraising, assisting with workshop development, teaching audio recording and editing skills, exhibit design and implementation
Larissa Fekete: Director, English for Speakers of Other Languages Duties include pre-workshop linguistic preparation for student participants whose first language is not English, post-workshop linguistic reflection, cognitive academic language proficiency, and co-presenting about this project at conferences.
Abraham Reshad: Director, Cooper International Learning Center (CILC): Duties will include, helping to facilitate all workshops both in planning and implementation, leading 3d printer related sessions, hosting some of the workshops in the CILC, coordinating the 3d printing of all of the personal objects, and looking for venues to present this project at conferences.

Timeline
1. Spring 2019 to present
    a. During Spring 2019, we completed the first iteration of the ArtiFACT Project with ESOL students at Oberlin College and OC student volunteers studying the native languages of the ESOL students. We have just launched the second workshop series, this time in collaboration with a local retirement community. This project iteration will conclude at the end of the Spring Semester.
2. Summer 2020
    a. Evaluate outcomes of first ArtiFACT Project iterations
    b. Define goals for future project iterations (project scope, potential for growth and continuity between iterations, online presence/archive, improve assessment)
    c. Evaluate effectiveness of ESOL 190 course and define learning and project objectives for second course iteration.

d.   Final Prep for the ESOL 190 Course
   3.   Fall Semester 2020
        a.   Sept-Oct ESOL 190: ArtiFACT course
        b.   Nov-Dec:
             i.   Make arrangements with our community partner
             ii.   Submit minor alterations to IRB, if any
   4.   Winter term 2021
        a.   Iron out Spring schedule for Artifact projects
        b.   Advertise to community partner
        c.   IRB presentation to participants
   5.   Spring term 2021
        a.   Carryout workshops and collect data from participants
        b.   Open the Exhibit and collect data on exhibit participants
   6.   Summer 2021
        a.   Analysis and reflection

Experience with the Digital Technology or Method Proposed
Abraham Reshad is an Educational Technologist with an emphasis on pedagogy relevant to language learning. He has supported the use 3d printers in educational contexts for 3 years. With 18 years of English teaching experience, he is an avid proponent of project based learning among other students centered practices that empower learners.
Larissa Fekete: Since 2010, Larissa Fekete has taught English as a Second language both abroad and in the U. S.   She started at the University of Alicante, Spain while completing her master's degree from the University of Jaen. She has worked as the Director of the ESOL program at Oberlin College since 2016. The program offers language and academic support to international students as well as opportunities to immerse in the American culture through a book and cinema club. Larissa combines language instruction with digital technology to provide opportunities for authentic language learning.
Abby Aresty: As Technical Director of the Technology in Music and Related Arts department, Aresty has extensive experience in teaching audio recording and editing skills in workshop settings like those we have developed for the ArtiFACT project. She also supervised the development of the project code and is fluent in the visual programming language (Max/MSP) in which the project was originally developed.

Ethical Considerations
There are concerns for privacy and in conducting research on Fekete's students:
   ●   Personal stories told in a person's identifiable voice
   ●   Pictures of personal items which are then 3d printed
   ●   Pictures of community interactions are part of the exhibit
   ●   Pre and post anonymous surveys regarding their overall experience of this project
   ●   Surveys for participants of the exhibit
   ●   Students receive course credit for project participation
Our team has applied and been approved as exempt by Oberlin's IRB. Every effort is made to protect project participants:

- Participant names are removed from personal items and stories presented in the exhibit. Participants can opt to have their stories recorded by a volunteer if they would like to further limit the possibility of identification
- Surveys for project and exhibit participants are confidential.
- Participants can join the project (the workshop series), yet choose not to be a part of the exhibit.
- All participants (including ESOL students) can choose to skip project components or to withdraw from the project at any time.
- Fekete's students may opt to complete other projects in lieu of the ArtiFACT workshops for the same credit.

Sustainability
In the short term, the ArtiFACT team has applied for grants to offset the costs of research assistants, audio recorders, 3d printing materials, printing services, web development, guest speakers, transportation to workshops, exhibit, and other related costs. While some of these costs are not renewable, many of them have served to build a firm infrastructure for this project upon which to build. At the current scale, our team is able to effectively manage project needs including developing grant proposals for funding, supervising research assistants, program development, and related tasks. If the project were to grow beyond our campus, there are several potential areas for growth and for the addition of new project partners. Our weakest link at the current scale is perhaps in study design, and assessment, as some of the questions we would like to address fall outside of our core team members areas of expertise, and because of our small sample size. Web development and archival maintenance are also critical, and it could be that partnering with a digital librarian, with a CS course, or with individuals in relevant areas on other campuses might be a useful step forward. Currently, our web presence is stored as a google site and is maintained by Aresty and her research assistants. This is sustainable at our current scale however, as we would like to make the technical aspect of this project more accessible to others on Oberlin campus and beyond by automating certain steps of the process, we would like to explore other models going forward.

Assessment
As approved by the IRB, data will be collected via surveys and observations of students and community partners throughout the workshops series and after its conclusion. Students also complete reflection assignments that address their workshop experiences. Participants of the ArtiFACT Exhibit's opening will also be surveyed. Effectiveness will be gauged in terms of community building and authentic language learning outcomes. At CODEX, we aim to revise and improve our assessment processes.

Accessibility
The end result of this project is multimodal in nature. Participants will record a personal story connected to an object. This object will be rendered as a 3d image that will be 3D printed. In the exhibit, guests and participants will have access to an audio recording to a story connected to a 3d printed object. This object can be seen with proper lighting and also held by anyone visiting the exhibit. An online project archive would make the project accessible to those who might not

be able to attend a project exhibit and is one of the goals we would like to explore, tentatively as part of the institute. We hope to enhance the accessibility of the project for educators outside of Oberlin and plan to begin to address this at CODEX. For example, the current project design cannot support most ESOL or other language educators unless they have extensive technical knowledge; we would like to find a way to support others who would like to participate.

Why CODEX?
We believe that being a part of a community of practitioners within a liberal arts college context will help us move forward will help us develop this project as we make decisions based on participant feedback. In addition, as we seek to make this type of experience accessible to all, partnering with the Ohio Five could serve as an important step in that direction.
Furthermore, while we have successfully implemented early project iterations, we feel that the project would benefit from feedback from others with more experience with managing projects on a larger scale and in the digital realm. We have compiled several resources for teaching audio recording and editing, 3D printing, and for building the exhibit, including complete project code. However, in its current form, due to the use of proprietary software (like the audiovisual programming language Max/MSP) the project is difficult to grow beyond Oberlin. Growing the project would be ideal for assessment purposes; in its current form, it is difficult to make any generalizations about project effectiveness because our sample size is so small. We also have no mechanism for growing an online collection of ArtiFACTs that could make participants feel like they are part of a broader community. We see participation in this workshop as a critical time for refining the project and exploring models for growth beyond our existing capacity. We are particularly seeking advice for a platform to create an archive of ArtiFACTs and to build a website that would invite participation from educators at other institutions. We also would benefit from feedback on study design and implementation. We are also eager to have time dedicated solely to improving this project since it is difficult to carve out time to work closely together to improve project materials during the academic year.