



Innovation Project Application

Library: Florida State University

Project Manager: Matthew E. Hunter

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Name of Project: Mobile 3D Scanner Workstation for High-Resolution Cultural Heritage Digitization

Project Amount requested: **\$2,500**

Scope of the Project: FSU Libraries' Office of Digital Research and Scholarship recently partnered with faculty members in the Classics and Anthropology departments to successfully secure a grant to purchase an ultra-high resolution 3D scanner to be used for the digitization of cultural heritage materials in various contexts. However, the computer being used to run the resource-intensive scanner is currently a desktop unit. This project, namely the purchase of a powerful laptop computer, will allow for 3D digitization of cultural heritage materials on various archaeological digs (library partner projects) and the digitization of non-documentary materials held in FSU's Special Collections, University Archives, and more, while maintaining the safety and preservation measures enforced by the archivists. Once digitized, materials that would otherwise be highly restricted due to fragility can be utilized by patrons and audiences much farther afield than previously before utilizing various 3D technologies such as Virtual, Augmented, and Mixed Reality, as well as 3D printing of faithful replicas that can be handled in ways that the originals cannot.

What need in the library/community will this project address? Currently, digitization activities at FSU's Special Collections and University Archives units are done via 2D photographic capture. This works well for materials such as documents and photographs, but certain objects would be far better served through more representative documentation that represents the physicality of the object. By using technology such as the 3D scanner on objects in these collections, the discovery and use of the materials will be possible by a much larger audience. Once digitized, the materials can be shared digitally through websites, blogs, and can be virtually "brought to" patron populations that cannot physically interact with the materials in the controlled environments (rightly) required by preservation specialists and archivists. 3D digitization would also allow for sturdy replicas to be created through techniques such as 3D printing, allowing for tactile learners (or the visually impaired) to also experience the materials in new ways!

Resources required and budget (NOTE: for items whose unit price exceeds \$500, 3 quotes are required or an indication that the vendor is sole source.):

- **\$2,500** -- One high-end gaming laptop or multimedia workstation laptop (minimum spec: Windows 10 64bit, 16GB RAM, NVIDIA GeForce GTX1080, 802.11ac WiFi, 1TB HD
FSU has an IT purchasing contract with both Dell and B&H Photo and Video, and would be required to use Dell products for continuity of IT support. The gaming laptop brand Alienware is a Dell product and provides good performance for money. One currently-available example of hardware that would perform admirably is listed below, but specific technical specifications should be confirmed with project director at time of purchase to ensure suitability:
- Dell 17.3" Alienware 17 R5 Laptop w/ Intel i9 processor, 32GB Ram ,NVIDIA GeForce GTX1080 graphics, 1.25 TB storage (B&H Photo and Video price: \$2190, item number "BH #DEA17R58950S")

Activities/Timeline (include estimated completion date): Upon purchase and delivery of the workstation laptop, the Digital Scholarship Technologist will partner with Special Collections to begin coordinating high-priority materials to be scanned and begin developing best-practice workflows for selecting and scanning materials, then depositing them in accessible digital repositories. A proposed timeline of activities is:

- By May of 2020, several high-profile materials will be scanned to provide examples of various types of materials that would make good candidates for digitization.
- Over the month of June, 2020 the scanner will be used in Cosa, Ansedonia, Italy, on an archaeological dig to document small, highly-detailed find objects for scholarly use.
- By December of 2020 the Digital Scholarship Technologist and representatives of Special Collections will have developed a digitization schedule and workflow, and digitized other high-profile materials to begin displaying and using in instruction and research contexts.

How will the library sustain this project? The University Libraries will maintain this workstation laptop in the course of its other IT-related services. It will remain with the 3D scanner to be the dedicated 3D modelling/scanning/editing workstation, and will be supervised while in the library by the Digital Scholarship Technologist or their representative.

Library Director's signature: *Gale S. Etchmeier* Date: 10/19/19

Signature of agent, office, or board to whom the Director reports Date: _____

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Approved _____ Not Approved _____

PLAN Executive Director _____