

WELLESLEY COLLEGE

AALAC Workshop Proposal

Digital Fabrication and Making in a Liberal Arts Context

Workshop Summary:

Our workshop, hosted at Wellesley College, will bring together faculty and staff of AALAC member institutions to discuss the integration of Digital Fabrication & Making in the Liberal Arts, showcasing the range of disciplines and applications for which these tools are used and developing an understanding of the best, sustainable practices for their use.

Workshop Description:

Use of Digital Fabrication and Making tools at Liberal Arts Colleges is growing rapidly and creating great interest amongst faculty, students, and staff alike. Spaces with some combination of 3D printers; VR headsets; laser cutters; and computer-controlled mills, lathes, and routers are rapidly being created, expanded, and/or seeing increased use from a wide variety of disciplines. Often these spaces have emerged idiosyncratically as the result of individual faculty or staff interest. This workshop aims to engage in a broader conversation about the pedagogical and strategic aspects to these emerging technologies and their educational applications.

This workshop will have two broad areas of focus around Digital Fabrication and Making. Throughout the workshop, presenters and participants will engage with the subject through a variety of formats: talks, hands-on activities, poster/product gallery, and structured discussion.

The first centers on the variety of applications, curricular roles, and pedagogical effectiveness of digital fabrication/making for liberal arts colleges. These sessions will give participants the opportunity to share their experiences, ideas, and results from their own utilization of fabrication/making at their institutions, helping to generate ideas for new approaches and opportunities for cross-campus collaboration.

The second focus addresses the sustainability and best practices surrounding these endeavors for liberal arts colleges. Given the resource constraints of liberal arts institutions (size, staffing, etc.), how can these technologies be maintained, shared, and built upon for program and curricular development? We will explore different models for digital fabrication and making ownership (within a department, campus-wide resources, hybrid models), access, maintenance, training, and cost management.

One element that we feel is essential for the successful integration of these tools/technologies/approaches within a liberal arts context is close interaction between faculty (coming from a wide range of backgrounds and specializations) and learning and technology support staff. While AALAC traditionally funds faculty participation in these kinds of events, we argue for the essential importance of partnerships between faculty and non-faculty and, as such, seek to

create a workshop that involves at least one faculty member and at least one staff member who supports learning and technology from each institution in attendance. We believe this collaborative approach to the meeting will greatly enhance the ability for attendees to make meaningful, informed contributions to the meeting and to be more effective in applying the lessons from the meeting at their home institutions.

Follow-up and Workshop Goals:

- Produce documentation on the best practices for evaluating student and faculty scholarship in areas of digital fabrication and making
- Highlight the range of pedagogical and research applications currently in use at participating institutions via a central website
- Create a master list and system for coordinating collaboration possibilities on digital fabrication and making resources at AALAC institutions
- Immediate, 6-month, and 18-month follow-up surveys on student and faculty utilization of digital fabrication and making experiences on campus

Designated Workshop Liaison: Adam Van Arsdale (avanarsd@wellesley.edu)

AALAC Workshop Co-Organizers (8):

Condensed curriculum vitae for each of the following are included with this proposal.

Institution	Name	Title	Role
Wellesley College	Amy Banzaert	Director and Lecturer, Engineering Studies	faculty
Wellesley College	Adam Van Arsdale	Chair, Anthropology Department	faculty
Wellesley College	Jordan Tynes	Manager, Scholarly Innovation	staff
Mt. Holyoke College	Kathy Aidala	Chair and Associate Professor of Physics, Chair of Engineering	faculty
Vassar	Zachary Cofran	Assistant Professor, Anthropology	faculty
Oberlin	Taylor Allen	Associate Professor of Biology	faculty
Bryn Mawr	Xuemei May Cheng	Chair and Associate Professor of Physics	faculty
Wesleyan	Kate Birney	Assistant Professor of Classical Studies	faculty