



NATIONAL ENDOWMENT FOR THE

Humanities

DIVISION OF EDUCATION PROGRAMS

Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Humanities Initiatives at Tribal Colleges and Universities application guidelines at <http://www.neh.gov/grants/guidelines/HTCU.html> for instructions. Applicants are also strongly encouraged to consult with the NEH Division of Education Programs staff well before a grant deadline.

Note: The attachment only contains the grant narrative and selected portions, not the entire funded application. In addition, certain portions may have been redacted to protect the privacy interests of an individual and/or to protect confidential commercial and financial information and/or to protect copyrighted materials.

Project Title: The IAIA Digital Curation Project

Institution: The Institute of American Indian Arts

Project Director: J. Carlos Peinado

Grant Program: Humanities Initiatives at Tribal Colleges and Universities

The IAIA Digital Cultural Curation Project

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The IAIA Digital Cultural Curation Project: Summary

The IAIA Digital Cultural Curation Project will engage IAIA’s faculty, staff, and students, along with the expertise of key partnering institutions and scholars, in the timely discussions among cultural heritage organizations and museums about the digital shifts that are changing the ways we present, share, and engage cultural knowledge. This 18-month project is envisioned as the pilot of a 3-year project that aims to further the innovative application of digital technology toward the understanding of Native American arts and culture.

Through two symposia and supporting activities, the project will create an opportunity for faculty members across IAIA departments, with the expert knowledge of collaborating institutions, to learn new ways to apply digital humanities resources in their curriculum. In concert with this interdisciplinary study, IAIA’s New Media Arts and Museum Studies departments will collaborate in the development of a “3D Viewing Tool” to engage IAIA students, tribal communities, and a wider audience in a virtual interaction with IAIA’s Collection of Contemporary Native American Art. Project Directors, with a team of “Student Technology Scholars,” will employ recently acquired technologies at IAIA to create high-definition 3D scans of objects from this collection. The result will be a highly interactive web-browser wrapper through which users can view, manipulate, and learn about these Native American cultural objects in a virtual, browser-based experience. This digital humanities resource will be utilized in two interdisciplinary courses to be developed during the project year.

This 18-month humanities study project will examine the applications of digital technologies to the research, preservation, collections management, interpretation, and representation of cultural heritage. The larger goal of the 3-year project is the development and dissemination of the 3D Viewing Tool to other museums and cultural heritage institutions as a viable and innovative method to archive, teach, and potentially share their own collections.

Established in 1962 in Santa Fe, New Mexico, the Institute of American Indian Arts (IAIA) is a fully accredited four-year college whose mission is to empower creativity and leadership in Native arts and cultures through higher education, lifelong learning, and outreach. Through the advanced technological capacity of IAIA’s New Media Arts program, and the Museum Studies program—the *only* program among tribal colleges and North American universities that specializes in tribal museum management and collections care—IAIA is uniquely positioned to become a leader in the research and application of emerging digital technologies to humanities preservation, education, and access.

IAIA Faculty members J. Carlos Peinado (Mandan/Hidatsa/Arikara) and Jessie Ryker-Crawford (White Earth Chippewa) will co-direct this project in collaboration with a range of expert scholars and partnering institutions, including the Indian Pueblo Cultural Center, Los Alamos Visual Analytics (LAVA), Dartmouth College Native American Studies Department and Hood Museum, Fort Collins Museum & Discovery Science Center, Organic Motion, Inc., and the University of New Mexico Arts Research Technology and Science (ARTS) Lab.

The IAIA Digital Cultural Curation Project: Narrative

i. Intellectual Rationale

Emerging digital technologies present complex issues relevant to the future of humanities preservation, education, and access, especially for the cultural sector and Indigenous peoples. IAIA is uniquely positioned to become a leader in the digital technologies research and humanities scholarship evolving around these issues. Through the advanced technological capacity of IAIA's New Media Arts program, and the Museum Studies program—the *only* program among tribal colleges and North American universities that specializes in tribal museum management and collections care—IAIA provides a vision of how technology can be utilized to sustain, grow, and share Native culture and wisdom, while training our students to serve as cultural and tribal heritage custodians.

This 18-month project is envisioned as the pilot of a 3-year project that aims to further the innovative application of digital technology that will aid in the understanding of Native American cultural objects. During the pilot year, IAIA's faculty and students, along with the expertise of key partnering institutions and scholars, will engage in the following core topic: the implications of digital technology innovation to the fields of cultural heritage preservation and development. The project will synthesize efforts and resources of IAIA's New Media Arts and Museum Studies departments to guide this humanities discussion. Simultaneously, faculty members from these respective departments will develop a highly interactive database of select objects from IAIA's Collection of Contemporary Native American Art. This 3D Viewing Tool will involve a web-browser "wrapper" through which this database of digitized objects can be shared and viewed.

In concert with creating this digital resource, IAIA and key partners will be reviewing, as an interdisciplinary team, the ethics, intellectual property issues, and responsibilities surrounding the digital dissemination of cultural objects and their knowledge bases. Symposia will be held to create

an opportunity for faculty members across other IAIA departments to collaboratively imagine, interactively engage, and develop applications for digital humanities in their curriculum. These symposiums will improve the quality and breadth of humanities teaching and learning at IAIA. Two cross-disciplinary digital humanities courses will also be developed and offered through the New Media Arts and Museum Studies departments during the Pilot Year. A team of “Student Technology Scholars” will be engaged in the 3D scanning, object research, and development of the digital application. In subsequent phases of this 3-year project, IAIA’s “Student Technology Scholars” will conduct outreach to train tribal museums in the use of this 3D Viewing Tool.

Students in the New Media Arts and Museum Studies departments participating in the project will directly benefit from this innovative digital application, and will be provided with unique research and technology skills training, aiding them in their future professional and academic endeavors. The project will strengthen IAIA’s partnerships with faculty at other universities and tribal colleges, leaders in museums, historical and cultural organizations, and experts in the fields of virtual technologies, digital media arts, and museum curation. These partnerships will expand the potential audience for the project.

The Digital Cultural Curation Project will contribute to the timely discussions among cultural heritage organizations and museums about the digital shifts that are changing the ways we present, share, and engage cultural knowledge. IAIA is a leading tribal college training students from over 75 tribes each year in museum curatorial methods, collections care, and cutting-edge digital technologies for art and humanities preservation. As such, we are committed to developing resources across Indian country, and supporting Native people in re-claiming and re-imagining digital technology innovations for their respective cultural, political, and economic developments.

ii. Content and Design

The humanities content of this project will address the application of digital technologies to the research, preservation, collections management, interpretation, and representation of cultural heritage. We will examine the changing roles and definitions of museums and curators in light of emerging interactive digital platforms, and explore complications of traditional authenticity and cultural exploitation that can arise from the digitization of Indigenous knowledge.

This discourse will be framed by two themes: **1. Digital technologies are cultural constructs** and therefore can be purposefully used to transform our methods of relating and transmitting humanities content and culture to our audiences and to future generations. Instead of allowing digital technologies to shape our cultures and identity, we can shape our digital tools to better preserve, present, inform, and sustain our cultural heritages; **2. “New Media is culture encoded in digital form”** (Manovich, 2001). Emerging digital technologies have the potential to not just record and replicate cultural material, but can activate this material information and transform the way we engage with it. Digital multimedia is not only a tool for interpretation and presentation but can be a material and cultural expression in its own right.

The proposed project is designed according to four overlapping phases:¹

Phase I – Research and Development of Digital Tool

The IAIA Museum of Contemporary Native Art (MoCNA) stewards one of the largest collections of contemporary Native American art in the country, which is now housed on the IAIA campus, and accessible to students, faculty and the wider public for research and educational purposes. The project will employ recently acquired technologies at IAIA to create high-definition 3D scans of objects from this collection, including pottery, sculpture, and other material culture. The interactive digitization of these objects will allow IAIA students, faculty, and a wider audience to learn about culturally relevant objects in a virtual, web browser-based experience.

¹ See Appendix 1. Work Plan for Project Activities and Timeline
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For the summer 2012, three students will be selected as “Student Technology Scholars” to work with the Project Director and IAIA Museum staff to select and digitize 15 to 20 objects from IAIA’s permanent collection using the NextEngine 3D scanner, which captures complex and organic shapes and objects in full color with multi-laser projection. Simultaneously, interns will work with Project Director in developing a browser-based wrapper in which to view and interact with these objects in real-time. Once the wrapper is developed, scanned objects will be “dropped in” and organized. Students will research and generate educational content and context for each object. The outcome of Phase I will be the piloted wrapper with an initial archive of cultural objects.

Ultimately, as the 3-year research goal, this project will develop an interactive experience set in a gaming environment tailored to the Xbox and Kinect Bar, whereby the end-user can virtually grab, hold, and turn these objects. Throughout a 12-month internship, Student Technology Scholars will first learn how to 3D scan and manipulate the object in a web-based environment, and then be challenged to increase the interactivity of these objects using IAIA’s advanced digital resources (the motion capture facility, 3D laser cutter, and 24’ Digital Dome). Students will be able to use existing 3D objects and motion-capture data to make animated interfaces, or “docents,” to deliver culturally relevant humanities content. Our Year One goals will inform our larger outcome, which is to make available to a broad audience a virtual experience of Native American cultural objects.

The Student Technology Scholars involved in the digital tool development will be critically engaged in complex issues relating to the preservation and interpretation of material and cultural heritage through real-time immersive and interactive technologies. Selected literature from the project bibliography² will be provided as curricular context for this in-depth study.

Phase II – Curricular Applications

² See Appendix 2. List of Readings
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To supplement Phase I Research and Tool Development, Project Director and Co-Director will develop and jointly teach one 300 and one 400-level cross-listed course. These courses—NMAD/MUSM 376: *Software Applications for the Digital Humanities* and NMAD/MUSM 476: *Cultural Representation in the Digital Humanities*—will introduce students from both disciplines to the use of emerging digital technologies in the archiving and presentation/display of cultural, visual, material, and intellectual property. Students will explore innovative ways in which digital technologies can be adapted to interact with cultural objects, such as creating conditions reports of the objects. They will also examine how various media forms challenge the traditional, object-based displays and offer opportunities for viewer interaction. These two interdisciplinary courses will engage key humanities content areas, including conservation, archives, Native American studies, and museum history.

Phase III – Institutional Humanities Enrichment

The 18-month initiative will stimulate a cross-disciplinary discussion among IAIA faculty and engage several partners who will contribute expert knowledge as members of the Advisory Council.³ Two one-day symposia will facilitate this discourse and address the following guiding question: How can Native American-serving institutions and tribal museums symbiotically adapt and incorporate emerging digital technologies to build and sustain Native communities and culture for future generations? The first symposium will create opportunities for IAIA faculty to consider digital humanities resources in a multidisciplinary context, and investigate ways to take advantage of these resources to enhance the humanities content of their curricula. The second symposium will build on discussions established in the first, and invite a range of scholars, museum professionals, and tribal community members to provide a larger contextualization and to consider applications of digital technologies in their own communities. Symposia will involve presentations by Project Directors, Student Technology Scholars, and Advisory Council members, and afternoon breakout group

³ See Appendix 3. Letters of Commitment
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discussions among faculty. A number of texts⁴ will be engaged throughout this discourse and in the curriculum that examine the intersection of cultural heritage and digital technology. From these texts, the Project Director and Co-Director will create an institution-wide “reader” that will provide the intellectual framework for the symposiums.

Phase IV – Outreach and Return

The Outreach and Return Phase IV will take place after the completion of the proposed project, and will specifically involve the sharing and distribution of the IAIA-developed 3D Viewing Tool to other schools, tribal museums, and cultural heritage institutions. Student Technology Scholars who participated in the project will be trained to train their own tribal museum staff in the use of the 3D Viewing Tool as an ancillary means of cultural collections interaction, display, and education.

iii. Institutional Context⁵

The mission of IAIA is to empower creativity and leadership Native arts and cultures through higher education, lifelong learning, and outreach. Our primary mission objective is to serve as a national center of excellence in contemporary Native arts and cultures through exhibitions, research, and Indigenous exchange. As this project will make digital humanities resources more accessible for use in cultural preservation and education, it directly supports this mission objective.

This project will develop stronger humanities content at IAIA by bridging our existing resources: our powerful new digital instrumentation through the Science and Technology Center, our New Media Arts and Museum Studies programs, and our museum’s large collection of contemporary Native American art. The project will strengthen the New Media Arts’ humanities content by encouraging students to recognize their roles as “digitally-enabled storytellers” of cultural material;

⁴ See Appendix 2. List of Readings

⁵ See Appendix 5. Institutional History

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and will advance the Museum Studies program's humanities discussions regarding cultural property and protocol in digital collections care, and digital media forms of presentation.

IAIA's Science & Technology Center, which opened in November 2010, houses both of these departments, along with IAIA's National Collection of Contemporary Native American Art and its supporting teaching laboratories. Previously stored at the MoCNA in downtown Santa Fe, this now on-campus collection features 7,500 pieces of Native art in all media created in 1962 or later by Native American artists. Of these pieces, there are approximately 1,300 3D objects, including traditional regalia, sculpture, ethnographic pieces, and ceramics.

The New Media Arts Center's advanced digital technologies supporting this project include: 1) the motion analysis lab featuring the Stage Real-Time Markerless Motion Capture System by Organic Motion, Inc.; 2) NextEngine 3D scanner complete with CAD software tools; 3) Digital Fabrication and Rapid Prototyping lab; 4) Macintosh labs containing 66 up-to-date computers, as well as professional video, audio, and lighting equipment; and 4) the newly installed 24-foot Digital Dome—a new generation of digital planetariums which creates hemispheric immersion in computer-generated and real imagery. With these resources, IAIA is uniquely positioned to provide scholarly and practical contributions to the fields of digital cultural heritage preservation and presentation.

Staff and Participants⁶

Project Director J. Carlos Peinado (Mandan/Hidatsa/Arikara), faculty member in the New Media Arts Department, and Co-Project Director Jessie Ryker-Crawford (White Earth Chippewa), faculty chair of the Museum Studies Department, will co-direct and oversee this project.⁷ Gregg Weiss, adjunct New Media faculty and experienced web-developer, will provide technical assistance.

Serving in an advisory capacity are: Michelle McGeough (Metis), faculty member in the Museum Studies Department; Ryan Rice (Mohawk), Curator of Exhibitions and Programs at the IAIA

⁶ See Appendix 4. Resumes/Bios of Project Staff

⁷ See Budget Narrative for Scope of Work for Project Director and Co-Director National Endowment for the Humanities (NEH) Humanities Initiatives at Tribal Colleges & Universities 2011

MCNA; and Tatiana Lomahaftewa Singer (Hopi/Choctaw), Curator of the IAIA Collection. These faculty/staff members will assist the Student Technology Scholars in the selection, handling, and research of content and metadata of objects from the IAIA Collection. Ann Filemyr, PhD, Academic Dean and Laurie Logan Brayshaw, MPH, Director of Sponsored Programs and Institutional Research, will oversee project evaluation and budget expenditures, and ensure all timeline benchmarks are met.

The Advisory Council will consist of the following **collaborating institutions**:⁸

David Beining, Associate Director of Immersive Media University of New Mexico Art, Research, Technology and Science Laboratory (ARTS Lab), Albuquerque, NM	The UNM ARTS Lab has a 10-year history of developing immersive media tools for cultural and educational applications, and is currently partnering with IAIA in an NSF grant to develop educational applications for the Digital Dome.
Steve Smith, President Los Alamos Visual Analytics (LAVA) and Director of the Santa Fe Complex (SF_x), Santa Fe, NM	LAVA and SF_x are both leaders in the research and development of visualization technologies. LAVA has significant expertise in 3D scanning and 3D digital tool development and is interested in engaging these technologies in humanities applications.
Jonathan Rand, President Organic Motion, Inc. New York, NY	Jonathan Rand has worked with IAIA and numerous other educational organizations in the installation of the Markerless Motion Capture System. Rand will offer expertise in the application of emerging digital technologies for interactive and educational use.
Marth B. Beckett, Museum Director Indian Pueblo Cultural Center Albuquerque, NM	The Indian Pueblo Cultural Center (IPCC) is dedicated to the presentation and celebration of the 19 New Mexico pueblos, and houses a permanent collection, archive, and library. Having recently launched an intergenerational digital storytelling project, the IPCC will be strong collaborator in the development of a digital resource for cultural preservation.
Ms. Terry Burton, Digital Media Coordinator Fort Collins Museum & Discovery Science Center Fort Collins, CO	Fort Collins Museum is working to research and develop new media tools for museums. With a new 36-foot digital dome, the museum is interested in collaborating with IAIA in virtualization projects for cultural heritage presentation.
N. Bruce Duthu, Samson Occom Professor and Chair Native American Studies Department Dartmouth College	Dartmouth's Native American Studies Department offers critical inquiry and insight on matters of Tribalism, intellectual property, and sovereignty. This expert collaboration will strengthen and inform IAIA's

⁸ See Appendix 3. Letters of Commitment
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Hanover, NH	humanities curriculum development.
Katherine Hart, Interim Director Hood Museum of Art Dartmouth College Hanover, NH	The Hood Museum is a recognized leader in object-based curriculum learning outcomes, and houses over 65,000 objects, many of which are Native American in origin. The Hood Museum will represent a key museum partnership for this project.

iv. Follow-Up and Dissemination

The goal of the pilot year of this three-year project is to engage IAIA faculty in exploring new horizons where technology and humanities programs intersect. This interdisciplinary humanities study will support the development of a unique 3D Viewing Tool that can be used to engage IAIA students, tribal communities, and a wider audience in a virtual interaction with Native American cultural materials. The tool will involve a digitized database of cultural objects, a wrapper through which one can view and interact with these objects, and applications for “hands-on” virtual learning. This 3D scanning application can be widely shared with museums and cultural heritage institutions.

Outreach with the wider Native American community will inform IAIA’s ongoing work in the development of widely accessible digital humanities tools and content to increase the preservation and understanding of Native American arts and culture. The final month of the proposed project will involve the pilot project evaluation, dissemination, and collaboration with partners, so as to formalize next-steps of Phase IV Outreach and Return.

With IAIA’s already available technology resources, and the research, partnerships, and student training supported through the pilot project, IAIA will have a strong foundation from which to successfully carry out the full 3-year project. Advisory Council members offer strategic networks that will support IAIA in this outreach endeavor. Activities in Years 2 and 3 of the project will involve the following objectives: 1) ongoing digitization of objects from the IAIA Collection; 2) modification and enhancement of the 3D Viewing Tool for wide use; and 3) outreach training to offer tribal museums simplified and affordable access to a digital tool that can enhance the way they

present and engage their collections.

Long-term sustainability for this initiative is ensured by IAIA's partnerships and its institutional investment in a high-end, high-cost Science and Technology facility designed to serve as an incubator of ideas, or "digital sandbox," with the expressed goals of scaling these tools to real-world access and educational application.

Pilot project research findings and educational developments will be formalized into a report that will be disseminated, to start, through the following venues: American Indian Higher Education Conference; the World Archaeological Congress; and the New Media Caucus at the College Arts Association conference. The Advisory Council will help generate other dissemination opportunities.

v. Evaluation

The Advisory Council will participate with Project Directors, IAIA Academic Dean, and IAIA Director of Sponsored Programs in an end-of-project evaluation. Evaluation methods will include formal course assessments, written feedback from participating students and faculty, post-symposium reports, and community feedback on the usability and potential applications of the 3D Viewing Tool. After Symposium II, faculty will present digital humanities curricular enhancements to the IAIA Curriculum Committee for evaluation, and will collaborate in producing a vision statement for interdisciplinary digital humanities at IAIA. Advisory Council members will offer strategies for future direction of the project. Evaluation methods include a log of grant-related activities, Classroom Assessment Techniques (CATS) currently employed at IAIA, and two post-symposium reports. Working with the Project Directors, Student Technology Scholars will create progress presentations for each symposium highlighting their work on the interactive database and web-wrapper. These presentations will indicate challenges and successes that will inform the project evaluation, and set the course for ongoing project objectives and outreach activities.

Appendix 1. Work Plan – Timeline of Activities

Activity	Description
January – May 2012	
Convening Planning Meeting 1	Project Directors and Advisory Council (local members to attend; out-of-state members present via conference call) to discuss project benchmarks and objectives and to share expertise.
Material Selection	Two meetings will be held with Project Directors and IAIA Museum staff to determine objects to be included in the 3D Viewing Tool pilot and to discuss issues of permissions and suitability to project purpose.
Curriculum Development	Project Directors to develop and pass through Curriculum Committee NMAD/MUSM 376: <i>Software Applications for the Digital Humanities</i> and NMAD/MUSM 476: <i>Cultural Representation in the Digital Humanities</i> for fall and spring 2012-2013 semesters.
Summer Internship Development Student Technology Scholar Selection	Students will apply for three “Student Technology Scholar” positions. Once accepted, the position will involve a paid six-week summer research internship. Scholars will be trained in 3D modeling theory, application, and technology, as well as digital curation and research skills. In Phase IV, Student Technology Scholars will serve as liaisons to their tribal communities and/or museums to train community in use of the 3D Viewing Tool.
June – August 2012	
Summer Research Internship:	<p>This internship will be supervised by the Project Director and Curator of Collections:</p> <p>Working with the NextEngine 3D Laser Scanner, students will engage in curricular projects to learn the technology skills and then apply these skills to capturing chosen collections objects.</p> <p>Students will begin to develop wrapper to view and interact with these objects in real-time.</p> <p>Students will research and generate content/context for each object.</p> <p>Students will engage in readings/discussion with selected literature.</p>
Evaluation	Evaluation of Summer Internship and digital product (3D Viewing Tool).
September – December 2012	

Project Directors will prepare inter-disciplinary reader for all IAIA faculty	This reader will contain selected literature relevant to various disciplines, and will be presented at Faculty Council meeting to form the basis for discussions during the Faculty Symposium.
Convening Planning Meeting 2	Project Directors and Advisory Council (local members to attend; out-of-state members present via conference call) to discuss project benchmarks, outcomes of summer research, and symposium topics. Goal: share expertise and cultivate broader partnerships.
Course: NMAD/MUSM 376: Software Applications for the Digital Humanities	This cross-disciplinary course will be co-taught by Project Directors. Student Technology Scholars will serve as teaching assistants.
Product Development	Student Technology Scholars will receive course credit to serve in leadership positions to continue to develop 3D Viewing Tool for increased interactivity and to expand content and context of selected objects for educational application.
	With support from students in NMAD/MUSM 376: continued digitization of 30 more objects from the IAIA Collection.
	Student Technology Scholars will give a presentation of 3D Viewing Tool at Symposium I.
	Web Developer and Project Director will provide leadership, expertise, and oversight of 3D Viewing Tool development. Curator of Collections and Museum Studies faculty will continue to provide oversight of object digitization.
Symposium I	Faculty from all IAIA departments, IAIA Museum staff, and Advisory Council members will participate in reading and discussion, and will explore ways in which digital technologies at IAIA can enhance the humanities content of their discipline. This full-day symposium will be comprised of presentations in the morning and small breakout groups in the afternoon.
Evaluation	Mid-Year Evaluation of Symposium I, Course, and Product Development.
January – May 2013	
Course: NMAD/MUSM 476: Cultural Representation in the Digital Humanities	This cross-disciplinary course will be co-taught by Project Directors. Student Technology Scholars will serve as teaching assistants.

Product Development	With support from students in NMAD/MUSM 476: continued digitization of 30 more objects from the IAIA Collection.
	Student Technology Scholars, Web Developer and Project Director will continue to develop 3D Viewing Tool for increased interactivity.
	Expand content and context of selected objects.
	Student Technology Scholars will give a presentation of product developments at the Symposium II.
	Completion and launching of the pilot 3D Viewing Tool.
Symposium II	With the addition of cultural partners, tribal museum leaders, technical experts in relevant media fields, and external university faculty involved in indigenous issues—faculty from all IAIA departments, IAIA Museum staff, and Advisory Council members will participate in a continued reading and discussion about wider implications for tribal communities and cultural heritage institutions. 3D Viewing Tool pilot will be demonstrated. The outcome of Symposium II will be a vision statement for interdisciplinary digital humanities at IAIA, and an outline of future cross-disciplinary projects engaging digital humanities resources.
Convening Planning Meeting 3	Project Directors and Advisory Council (local members to attend; out-of-state members present via conference call) to discuss project benchmarks, outcomes of symposiums, product development, and objectives for Years 2 and 3. Goal: share expertise, cultivate broader partnerships, evaluate 3D Viewing Tool, and develop outreach plan for Year 2.
Evaluation	Surveys will be conducted during and after Symposium II. Gather course and faculty/student evaluations, refine curriculum, and prepare the final report to include the vision statement for interdisciplinary digital humanities at IAIA. Project evaluation will inform objectives and benchmarks for Year 2 (Phase IV: Outreach and Return).
June 2013	
Dissemination and Final Report	Project Director and Co-Project Director: Demonstrate 3D Viewing Tool and project outcomes among local, regional, and tribal networks. Complete Final Report.

Appendix 2. List of Readings

The proposed project is informed by the following texts. These texts will also be used to develop curricular materials as well as a faculty reader. Each text has been chosen for its potential to engage cross-disciplinary and scholarly dialogue around the project topic area.

Benjamin, Walter. 1968. Illuminations: The Works of Art in the Age of Mechanical Reproduction. London: Fontana Press.

Baudillard, Jean. 1994. Simulacra and Simulation. Trans. Sheila Faria Glaser. Ann Arbor: University of Michigan Press.

- Benjamin and Baudillard are proponents of early theories of mechanical reproduction and simulation and the potential threat posed to “real” objects and works of art. Benjamin offers a definition of “aura” for cultural and material objects, and argues that reproductions of works of art can never re-create this aura.

Cameron, Fiona and Sarah Kenderdine, editors. 2007. Theorizing Digital Cultural Heritage: A Critical Discourse. Cambridge, Mass: MIT Press.

- This collection of essays explores the use of digital media by cultural heritage institutions and the implications for research, preservation, management, interpretation, and representation of cultural heritage. This collection presents a range of perspectives for students/scholars in all fields of cultural heritage, as well as those in education and information technology.

Chakrabarty, D. 2002. “Museums in Late Democracies.” *Humanities Research* IX, no. 1: 5-12.

- Discusses the political implications of the way in which multimedia installation can enhance the “affective” possibilities of the object. The author discusses an experiential model of democracy that privileges the experience rather than the analysis of knowledge.

Brown, Deidre. 2007. “Te Ahua Hiko: Digital Cultural Heritage and Indigenous Objects, People, and Environments.” In Theorizing Digital Cultural Heritage: A Critical Discourse. Cambridge, Mass: MIT Press.

Brown, Deidre. 2001. “Navigating Te Kore.” In Techno Maori: Maori Art in the Digital Age. Ed. D. Brown and J. Maine-Wheokie, CD-ROM. Wellington: City Gallery Wellington and Pataka Porirua.

- Deirdre Brown, in both of these essays, discusses various pilot projects to digitize, through virtual reality applications, Maori cultural objects, performances, and narratives, and the issues that arose through these pilot projects related to cultural values, appropriation, legal and moral protections, authenticity of virtual replications of people and environments, and issues facing indigenous people and knowledge in building a global digital library.

Gitelman, Lisa and Geoffrey B. Pingree, editors. 2003. New Media, 1740-1915. Cambridge, Mass: MIT Press.

- Examines a variety of media in their historic contexts, considers emergent media as sites of ongoing cultural engagement, and can serve to deepen one’s historical understanding of media.

Gurian, Elaine Heumann. 1999. "What is the object of this exercise? A meandering exploration of the many meanings of objects in museums." *Daedalus*, Vol. 128, No. 3, America's Museums (Summer, 1999), pp. 163-183.

Hayles, N. Katherine. 1999. "The Condition of Virtuality." In *The Digital Dialectic: New Essays on New Media*. 1999. Cambridge, Mass: MIT Press.

- Hayles argues that technologies are cultural constructs and their meaning and imaginative uses are dependent on the cultural values and meanings attributed to them.

Hazan, Susan. 2001. "The Virtual Aura: Is there Space for Enchantment in a Technological World?" Paper presented at Museums and the Web Conference, March 14-17, Seattle, Washington. Available at <http://www.archimuse.com/mw2001/papers/hazan/hazan.html>

- Material authenticity as a cultural concept: does the value, meaning, or potency of the "real" object increase or decrease when digitized. How do we apply this argument to earlier reproductive technologies such as photography and line engravings, and then to recent interactive, immersive methods of replication/reproduction?

Hooper-Greenhill, Eileen. 2000. *Museums and the Interpretation of Visual Culture*. London: Routledge.

Hughes, Lorna. 2008. "Virtual Representations of the Past – New Research Methods, Tools and Communities of Practice." Pp. 191-202. *The Virtual Representations of the Past (Digital Research in the Arts and Humanities)*. Mark Greengrass & Lorna Hughes, editors. Surrey, England: Ashgate Publishing Ltd.

Jenkins, Henry and David Thorburn, editors. 2003. *Rethinking Media Change: The Aesthetics of Transition*. Cambridge, Mass: MIT Press.

- This series of essays discusses patterns of cultural development alongside history shifts in media, and includes a section of essays regarding aspects of visual culture in the evolving museum and virtual presentation spaces.

Lunenfield, Peter, ed. 1999. *The Digital Dialectic: New Essays on New Media*. Cambridge, Mass: MIT Press.

Macdonald, S.J. "Interactivity: Thinking Beyond." Pp. 352-261. In *Blackwell Companion to Museum Studies*. London: Blackwell.

- Discusses how museums are moving away from a referent in a reality constructed by objects.

Manovich, Lev. 2002. "The Languages of Cultural Interfaces." Pp. 69-72. *The Language of New Media*. Cambridge, Mass: MIT Press.

- Manovich: "New Media is culture encoded in digital form."

McDonald, George. "Change and Challenge: Museums in the Information Society." Pp. 158-181. In *Museums and Communities: The Politics of Public Culture*. Ed. I. Karp, C. Mullen Kreamer, and S.D. Lavine, Washington, D.C.: Smithsonian Institution Press.

- Explores the introduction of digital media into the museum as a means to bring multi-cultural audiences together, giving shape to the “global village.” Written two decades ago, this book lays the foundation for questions of cultural presentation and heritage through emerging media forms, which have since advanced further and pose even more complex issues to cultural heritage preservation.

National Research Council. 2000. *The Digital Dilemma: Intellectual Property in the Information Age*. Washington, D.C.: National Academy Press. Available at http://www.nap.edu/html/digital_dilemma/ch1.html

Niezen, Ronald. 2005. “Digital identity: the construction of virtual selfhood in the Indigenous Peoples’ Movement.” *Comparative Studies in Society and History*, Vol. 47, No. 3 (Jul., 2005), pp. 532-551.

O’Gorman, Marcel. 2006. “The Canon, the Archive and the Remainder: Reimagining Scholarly Discourse.” Pp. 3-16. In *E-crit: Digital Media, Critical Theory, and the Humanities*. Toronto, Canada: University of Toronto Press.

Sullivan, Robert. 2002. “Indigenous Cultural and Intellectual Property Rights: A Digital Library Context.” *D-Lib Magazine* 8, no. 3. Available at <http://www.dlib.org/dlib/may02/sullivan/05sullivan.html>

- Digital multimedia installations offer new interpretive possibilities for the presentation of cultural narratives that may work across cultural divides by engaging emotions such as empathy and memory, and creating shared experiences. Excerpts from this text will engage faculty in an examination of various methods necessary to maintain cultural integrity and control.

Thomas, Selma, and Anna Mintz, editors. 1998. *The Virtual and the Real: Media in Museums*. Washington D.C.: American Association of Museums.

Witcomb, A. 2003. *Reimagining the Museum: Beyond the Mausoleum*. New York: Routledge.

Worcman, Karen. 2002. “Digital Division is Cultural Exclusion. But is Digital Inclusion Cultural Inclusion?” *D-Lib Magazine* 8, no. 3. Available at <http://www.dlib.org/dlib/march02/worcman/03worcman.html>

- Worcman: “It may be that the most important factor of the digitization project is not the creation of the ‘digital collection’ as such, but the group’s engagement in the process that motivates new generations to value their history.” This concept informs the proposed project, which seeks to engage interdisciplinary faculty participation in the digitization process and the development of a 3D Viewing Tool for humanities applications.

Appendix 5. Institutional History

Established in 1962 in Santa Fe, New Mexico, the Institute of American Indian Arts (IAIA) is a fully accredited four-year college whose mission is to empower creativity and leadership in Native arts and cultures through higher education, lifelong learning, and outreach.

Originally established as a high school under the Department of Interior's Bureau of Indian Affairs in 1962, IAIA is now one of 36 Tribal Colleges, a member of the American Indian Higher Education Consortium (AIHEC), and a Native American Land Grant Institution. In 1986, IAIA become one of three congressionally chartered colleges in the nation, and was charged with the study, preservation, and dissemination of traditional and contemporary expressions of Native American language, literature, history, oral traditions, and the visual and performing arts.

In 2000, IAIA moved to its permanent 140-acre campus, and within two years expanded its academic programs to include baccalaureate degrees. IAIA now offers two-year associate degrees and four-year baccalaureate degrees in Creative Writing, Studio Arts, New Media Arts, Museum Studies, and Indigenous Liberal Studies. IAIA is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (NCACS) and by the National Association of Schools of Art and Design (NASAD).

Through IAIA, The College of Contemporary Native Arts, IAIA houses 7 departments and 55 faculty (22 full-time and 33 part-time). Departments include the degree-granting programs of Creative Writing, Studio Arts, New Media Arts, Museum Studies, and Indigenous Liberal Studies, as well as the Essential Studies and Health and Wellness Departments. In the spring 2011 semester, the student body was 343 students (325 full-time equivalent), representing 87 federally recognized tribes and 29 U.S. states. Of these students, 87 are first-generation college students. In 2010, IAIA awarded 22 Bachelors and 3 Associate's Degrees.

As one of the few Tribal Colleges with a national mandate to serve all Native tribes, IAIA is unique among Tribal Colleges because of its multi-tribal student population. We are also unique as the only multi-tribal Native American institute of higher education focused on contemporary arts and culture. In addition to our national constituency, IAIA's immediate service area includes the 19 sovereign New Mexico Pueblos, the Jicarilla and Mescalero Apache Tribes, the portion of the Navajo Nation in New Mexico, and the Native Americans who reside in the urban areas of Albuquerque, Bernalillo, and Santa Fe counties.

In addition to the College of Contemporary Native Arts, IAIA is also represented by: the Museum of Contemporary Native Arts (MoCNA) located in downtown Santa Fe—the only museum in the world devoted exclusively to the display of diverse art practices representative of Native North America; and the Center for Lifelong Education (CLE), which provides outreach services for local and national tribes through distance education, training, technical assistance, and capacity development.