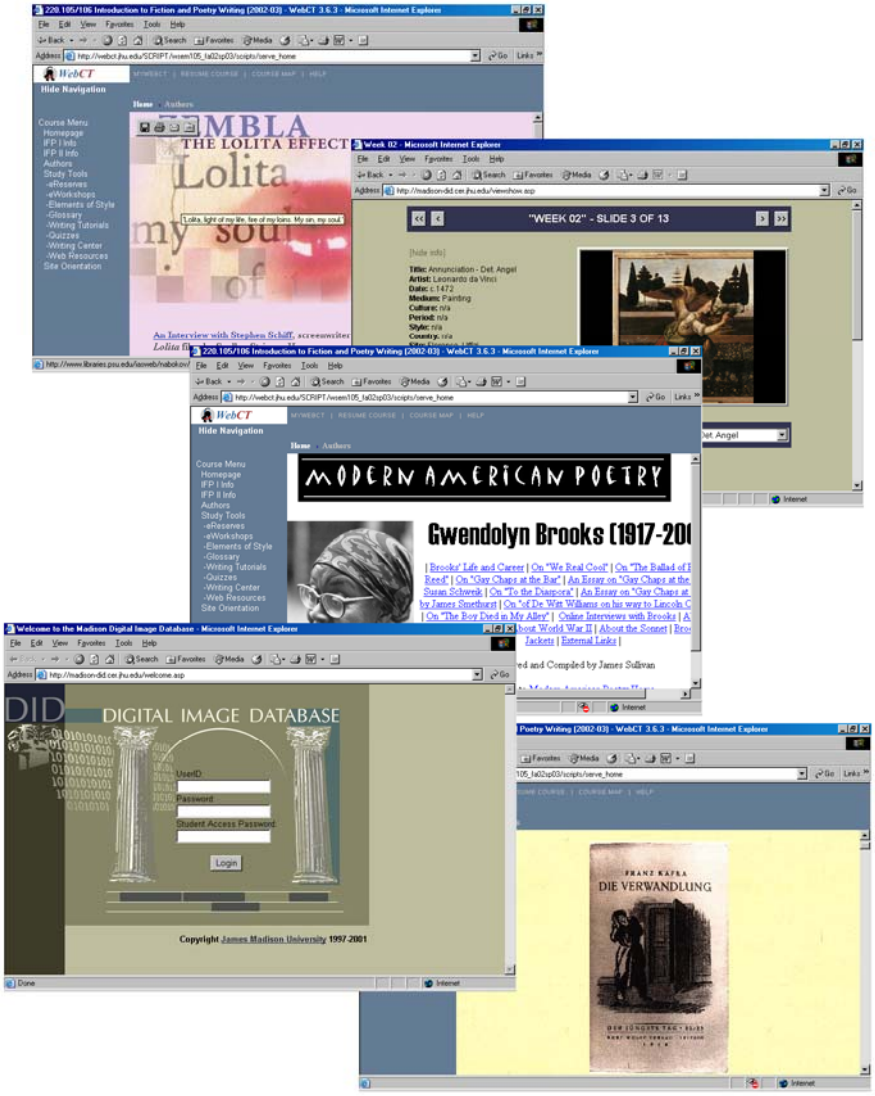
# Humanities Education in the Digital Age




## Final Report to the Arthur Vining Davis Foundations

## The Sheridan Libraries of the Johns Hopkins University

**March 31, 2006**

## Table of Contents

Introduction ..... 3

Summary of Program Goals and Activities ..... 3
- Critical Thinking ..... 4
- Sustainability ..... 5
- Re-use and Dissemination ..... 6

Conclusion ..... 7

Appendix A - Budget Summary ..... 8

Appendix B – Humanities Education in the Digital Age Program ..... 9

Appendix C – Project Descriptions ..... 10
- Introduction to the History of Western European Art I and II ..... 11
- Introduction to Fiction and Poetry I & II ..... 16
- The American West ..... 20
- The Interactive Florence Map ..... 24
- Art Museum Policy and Practice: Information in the Art Museum ..... 26
- Great Books: The Western Tradition ..... 29
- Introduction to the Study of Film and Media ..... 33
- The Documentary Tradition ..... 36
- Introduction to the History of Early Modern Philosophy ..... 41
- The City: A Multidisciplinary Perspective ..... 45
- Rise of Modern Science ..... 49
- Spanish Through the Eyes ..... 51
- Europe and the Wider World: 1492-1776 ..... 55
- Exploring the Museum: History, Theory, Practice ..... 57
- Tablet PCs in the Humanities ..... 58

Appendix D – Conference Presentations on Grant-funded Projects ..... 60

## Introduction

This report documents completion of the Arthur Vining Davis Foundations' (AVD) 2001 grant to Johns Hopkins University to enhance undergraduate critical thinking skills by introducing interactive and collaborative digital technologies into the humanities curriculum.

To fulfill the grant's objectives, the Center for Educational Resources (CER) in the Sheridan Libraries partnered with faculty to develop a variety of course enhancement resources. CER staff, trained in instructional design, educational theory, technology implementation, and project management, offered a skill set well matched to the goals of the AVD grant.

While the original proposal called for development of resources for four to five courses, the CER was able to broaden the grant's impact, ultimately working with 22 faculty, drawn from 10 humanities disciplines, on 17 different course projects. In turn, faculty shared the resources developed through this project with colleagues at Hopkins and at other institutions, further extending the grant's reach and influence. Indeed, several thousand students have benefited as a result of the AVD humanities course enhancement program.

## Summary of Program Goals and Activities

The critical thinking skills of many undergraduates are underdeveloped when they matriculate to university study. Moreover, though a wide variety of instructional technologies have facilitated pedagogical innovation, humanities faculty, as a group, have not rushed to embrace technology.

The AVD Critical Thinking in the Humanities Program incorporated three overarching goals:

- *Enhance critical thinking* − improve critical thinking skills of humanities students through the innovative use of digital technologies and pedagogical strategies;
- *Create sustainable resources and assess impact* – ensure that implementation of each project includes a strategy for sustainability, an efficient use of resources, and a strategy for evaluating impact; and
- *Re-use and disseminate* − pilot new pedagogical strategies and educational technologies as models for other courses. Encourage resource sharing and promote best practices with other faculty at Johns Hopkins and beyond.

Because the number of courses impacted by the AVD grant is extensive, this summary concentrates on highlights that illustrate implementation of program goals. Appendices contain analyses of all projects; a narrative of expenditures; and a list of participating faculty and course enrollments. Also included is a sample program from the symposium, "Enriching Undergraduate Humanities Courses in the Digital Age," held at Johns Hopkins University in November, 2004, for humanities faculty of colleges and universities in the Baltimore region.

## Critical Thinking

Critical thinking – the ability to analyze, evaluate, and conceptualize information and to see its relationship to previously acquired knowledge – is an essential, yet underdeveloped, skill in both high school and undergraduate students. Teachers dedicated to cultivating this skill through humanities curricula have found traditional pedagogical tools adequate, but limited. While lectures, printed reserve readings, and writing assignments provide a satisfactory learning environment, digital technologies in a web environment permit nonlinear access to course resources and offer exciting opportunities for students to explore information upon which knowledge is formed.

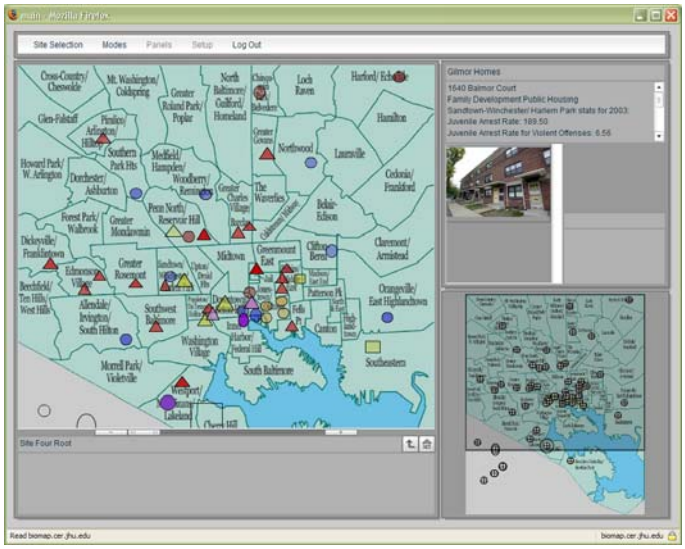
Online peer review of writing. Writing and rewriting are required to develop students' written communication skills. But in a large lecture course, the professor (even with a fleet of TAs) is limited in the amount of constructive feedback that s/he can provide to each student. Through the AVD program, faculty and TAs explored the impact of student peer review in a structured and monitored environment. In *Introduction to the History of European Art*, the faculty developed a series of short-answer essay questions through which students analyzed works of art not discussed in class. Students posted responses to the course website; short essays were randomly distributed to classmates (anonymously); fellow students were asked to read their colleagues' essays and post comments according to an assessment rubric provided by the faculty. Thus, all students were both writers and critical reviewers of one another's essays. One professor commented that students' final papers in this course were the best he had read in 30 years.

Online peer review of photography. The value of technology-enhanced feedback is not limited to writing environments. Students in a documentary photography class shared their weekly photography assignments with classmates and secured online criticism. This process allowed students to receive more frequent, in-depth feedback than when they critiqued their peers' work only during class. The online system allowed students to take their time with the analysis before commenting. Often students photographed their assignments a second time, based on peer reviews, essentially rendering the submitted assignments as second drafts. Faculty noted that "the online submission enabled us to establish an archive of images and comments. We could see who was taking advice and putting it into practice, and who wasn't. We could detect increasingly sophisticated commentary over the course of the semester."

*Walker Evans - FSA Photograph*

Enhancing film criticism. Films almost always exceed class time, and their components are difficult to criticize and debate during real time screening. Film faculty digitized movie clips and posted them in a password-protected website for students to examine and discuss in response to guided questions. Students debated film themes, framing, and directors' styles in an online discussion board housed on the course website.

Digital field assignments. One manifestation of critical thinking is the creation of knowledge. Johns Hopkins was founded on the idea that research and teaching should be integrated so that students learn and contribute to the world's knowledge simultaneously. In the course, *The City: A Multidisciplinary Perspective*, professors from different disciplines (art history, archaeology, sociology, engineering, public health) lectured on the nature of the urban environment from the perspectives of their individual disciplines. Student teams investigated urban issues (public health, public art, crime), with each person on each team assuming the role of a different discipline expert. The AVD grant funded digital equipment − cameras, iPods with microphones, video cameras – that students used to capture images, conduct interviews, and shoot video. Students reported on their investigations through multimedia analyses that incorporated audio and video. These multimedia assignments augmented traditional research papers.




*Student Multimedia Project on Public Housing*

Digital criticism in Great Books seminar. Four senior faculty from different humanities departments – Romance Languages, German, Classics, and Philosophy – created a new freshman course, *Great Books: The Western Tradition*. The course offers a firm grounding in reading, discussing, analyzing, and writing about themes embodied in classic humanities works. Faculty rotate responsibility for lecturing the entire class, but all lead small discussion groups weekly, a responsibility typically delegated to a teaching assistant. The course is writing-intensive; assignments are submitted electronically; and faculty criticism is delivered online. The process encourages higher quality student-faculty interaction on papers and improved analysis in final versions of each assignment. *Great Books* represents a significant enhancement of the Hopkins undergraduate curriculum because small, discussion- and writing-intense seminars led by senior faculty have not generally been available to freshmen.

## Sustainability

Leveraging existing resources. As stewards of the grant, CER staff were keenly aware that grant projects had to be sustainable beyond the AVD funding period. The CER developed a project management process and team structure that engaged appropriate individuals from each academic department and the library staff to ensure post-project support. Teams typically included the faculty's departmental librarian and IT support staff, CER professional staff, and student developers. This team structure also helped identify existing university resources to expand the impact of AVD funding. CER staff presented on this project management process at three professional conferences. Two institutions subsequently contacted CER for help in adopting this model.

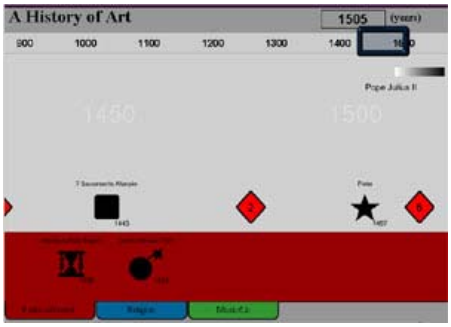
## Re-use and Dissemination

Identifying open source tools. CER identified a free, open source, digital image database developed at James Madison (*MDID* – Madison Digital Image Database) for the art history courses. This tool allows faculty to teach with digital images instead of slides, to select on the fly any slide from the department's collection to illustrate points that arise in class discussions, and to make all class images available on the web. The MDID's ease of use and ability to share content led humanities faculty from other departments, including history, the humanities center, and archaeology, to share their slide collections with the history of art department for digitization and inclusion in a common digital image library. For the documentary photography course, Johns Hopkins partnered with the Maryland Institute College of Art (MICA) to digitize slides from its documentary photography collection to augment the Hopkins image library and to initiate development of a digital image library at MICA.

*MDID – Comparing Detail to Original*

Beta testing and helping to shape ARTstor. Work on the introductory art history project led to selection of Johns Hopkins as one of 14 institutions to beta test ARTstor's web-based fine arts image database. In creating a repository of hundreds of thousands of digital images, ARTstor's mission is to use digital technology to enhance scholarship, teaching and learning in the arts and associated fields. The opportunity to beta test the ARTstor tools permitted JHU faculty to use this digital image database without cost for a year and to offer suggestions for enhancing the toolset before its broad release.

Disseminating audio and cultural resources. In the *Spanish Through the Eyes* project, a Spanish language instructor replaced out-dated, overly-staged video scenarios that accompany typical course textbooks with digitized videos of native Spanish speakers discussing their perspectives about living and working in Baltimore. Students were asked to analyze the distinctions in pronunciation and idiomatic expression as part of listening comprehension exercises. The instructor presented a summary of her project to the American Council on the Teaching of Foreign Languages, prompting several institutions to request the materials for their own Spanish language programs and a major publisher to inquire about creating a new textbook. Anthropologists have expressed interest in using the videos to research and illustrate the growth of distinct Hispanic communities in Baltimore.




*Example Timeline*

Developing and shaping original software. The CER developed an application, *Timeline Creator*, to enable faculty with no multimedia development skills to create interactive, web-based, media-rich timelines. Several AVD projects used *Timeline Creator* to illustrate the

relationship of simultaneous events in several disciplinary fields. Based on this interest, the CER made the tool freely available to other educators through its website. To date, over 4,000 individuals from around the world have downloaded the AVD-funded *Timeline Creator* software underwritten by the AVD grant. The application won first place in Macromedia's 2003 Innovation Award competition for higher education. (http://timeline.cer.jhu.edu)

Results of projects funded by the AVD grant have been presented at ten conferences by CER staff and Johns Hopkins faculty. A full list appears in Appendix D.

## Conclusion

The Johns Hopkins University and the Sheridan Libraries wish to express sincere gratitude for the generous grant from the Arthur Vining Davis Foundations. Details on the educational resources developed, pedagogical strategies adopted, and evaluation of the impact on students' critical thinking for each project are available in Appendix C.

## Appendix A - Budget Summary

| Project | Expenditure |
|---|---|
| Introduction to the History of Western European Art I and II<br>*Professor Herb Kessler* | $38,744.23 |
| Introduction to Fiction and Poetry I and II<br>*Professor Jean McGarry* | $23,892.73 |
| The American West<br>*Professor Ron Walters* | $5,977.93 |
| The Interactive Florence Map<br>*Professor Stephen Campbell* | $4,307.54 |
| Art Museum Policy & Practice: Information in the Art Museum<br>*Professor Eunice Maguire* | $9,799.50 |
| Great Books: The Western Tradition<br>*Professor Ruedigar Campe*<br>*Professor Matt Roller*<br>*Professor Walter Stephens*<br>*Professor Meredith Williams* | $20,165.00 |
| Introduction to the Study of Film and Media<br>*Professor Linda Delibero* | $18,984.39 |
| The Documentary Tradition<br>*Professor Phyllis Berger*<br>*Professor Stuart W. Leslie* | $6,793.20 |
| Introduction to the History of Early Modern Philosophy<br>*Professor Sean Greenberg* | $10,313.43 |
| The City: A Multidisciplinary Perspective<br>*Professor Matthew Crenson*<br>*Professor Robert Kargon* | $7,728.06 |
| Rise of Modern Science *(evaluation still in progress)*<br>*Professor Sharon Kingsland* | $2,686.00 |
| Spanish Through the Eyes *(development still in progress)*<br>*Professor Citlali Miranda-Aldaco* | *$22,000.00* |
| Europe and the Wider World, 1492-1776 *(evaluation still in progress)*<br>*Professor Richard Kagan* | $816.00 |
| Exploring the Museum *(development still in progress)*<br>*Professor Stuart W. Leslie*<br>*Professor Elibeth Rodini* | *$2,000.00* |
| Tablet PCs in the Humanities *(evaluation still in progress)*<br>*Professor Peggy Beauvois*<br>*Professor Mar Encinas*<br>*Professor Ivette Gonzalez*<br>*Professor Citlali Miranda-Aldaco* | $7,859.45 |
| Miscellaneous (AVD Symposium, hardware and software shared by all projects) | $17,932.54 |
| | |
| **Total** | **$200000.00** |

## Appendix B – Humanities Education in the Digital Age Program

## Appendix C – Project Descriptions

Appendix C documents the details of the 18 course projects funded through the AVD grant. These descriptions include background information on each course, the critical thinking skills addressed, the pedagogical challenges identified, and solutions implemented. For completed projects, the descriptions include a summary of impact – an overview of the project evaluation findings – and additional benefits identified.

Each project description is labeled with a color-coded summary of the types of activities undertaken. These include the following.

**New Educational Technologies Developed**

Project integrated new educational technologies developed by the project team (e.g., Interactive Florence Map) and/or existing technologies piloted for the first time at Johns Hopkins University (e.g., Madison Digital Image Database).

**New Student Communication Techniques Integrated**

Project implemented student-faculty or student-student communications not previously used in the course (e.g., online discussion boards, peer-review writing activities).

**Curriculum Redesigned or Created**

Project focused on instructional design of new course (e.g., Great Books) or existing course curriculum (e.g., The City).

**New Student Assessment Methods Implemented**

Project implemented new student assignments or new course learning objectives based on digital technologies employed to enhance critical thinking skills (e.g., Spanish Through the Eyes).

## Introduction to the History of Western European Art I and II

**New Educational Technologies Developed**
**New Student Communication Techniques Integrated**

**Department**: History of Art
**Typical Enrollment**: 80 students/semester
**Course Type**: Introductory Survey (2 courses)
**Number of Faculty**: 1 faculty (rotates yearly)
**Cost**: $38,750

### Course Description

*Introduction to the History of Western European Art* is comprised of two semester-long courses that survey painting, sculpture, and architecture from the Egyptian, Greek, Roman, Medieval, and Renaissance periods to the present. The weekly course format consists of two 1 ¼ hour lectures and one 50-minute discussion section.

### Critical Thinking Skills Addressed

***Ability to magnify and highlight details***

Students will be able to:

- look critically at works of art and think analytically about stylistic characteristics, subject matter, and technique;
- describe stylistic characteristics and interpret works of art within relevant artistic, historical, and cultural context;
- critically interpret works of art using clear and concise language and historically appropriate vocabulary; and
- identify core paintings, sculpture, and architecture of the European experience.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Using traditional 35 mm slides limits access to course materials.<br>▪ Students have limited access to course images outside of lectures.<br>▪ Using conventional slides, faculty can display only those images assembled for each individual lecture. | ▪ Digitize all course slides and catalog them in a web-accessible digital image library that also contains related scholarly data.<br>▪ Post each lecture's slides online. | ▪ High-resolution scanning.<br>▪ Madison Digital Image Database (MDID) – a software application that archives digital images and catalogs accompanying scholarly data. | ▪ Students can review any lecture image at any time from any Internet-connected computer.<br>▪ Students create study groups that use the MDID's slideshow capability to review images and accompanying scholarly data.<br>▪ Faculty show any image cataloged in any class, including images from past lectures.<br>▪ Faculty can magnify image details in response to student questions. |
| ▪ Students have insufficient resources to practice identifying the paintings, sculptures, and architecture of European art and culture discussed in class.<br>▪ Students have insufficient resources to practice analyzing *unknown* images in preparation for exams. | Develop automated image identification and analysis quizzes for images *not shown or discussed* in lectures. | Image identification quizzes were developed in a WebCT course site. Pre-populated feedback communicated a range of acceptable responses. Questions about related images encouraged students to extend their image analysis through compare and contrast exercises. | ▪ Students refined identification and analysis skills by answering automatically-scored questions.<br>▪ Students practiced analyzing unfamiliar images and comparing and contrasting them with other works of art in a monitored environment.<br>▪ The pre-populated, acceptable responses minimally impacted the faculty and teaching assistants' time. |

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| ▪ Limited class time and large class enrollment restricts writing and review opportunities for students.<br>▪ Students have inadequate resources for practicing short-answer essay questions. | Integrate an automated peer-review writing tool in which students write essays and submit them for review by peers who provide constructive criticism in accordance with grading standards provided by faculty. | Bilnex's Web-based *Peer-review Writing Tool* facilitated a multi-week writing assignment. During week 1, students responded to a short-answer essay question. During week 2, students provided feedback to classmates. The system randomly assigned essays, and faculty provided guided questions to assist students in crafting feedback to classmates. | Students benefited from reading and commenting on other students' essays in addition to obtaining feedback from peers on their own writing. |
| Limited class time and students' self-consciousness inhibit discussions and questions. | Integrate online communication tools into course website. | Added a chat room and discussion board to the course website. | ▪ Students post questions to faculty and teaching assistants.<br>▪ Faculty respond once to the same question raised by multiple students. |
| Undergraduate students have limited experience in using library resources for research. | ▪ Compile a list of library databases and web resources relevant to art history topics.<br>▪ Publish the contact information for the subject-area resource librarian.<br>▪ Develop an illustrated glossary of art history-specific terms.<br>▪ Develop online tutorials for using library art history resources to conduct scholarly research. | ▪ All library information was posted in the Research section of the WebCT course site.<br>▪ Online tutorials guided students through initial experience with library databases. | ▪ Students introduced to relevant library research resources in a central location.<br>▪ Number of students seeking face-to-face contact and consultation with art history librarian expanded dramatically (10-fold) as a result of the course website. |

## Summary of Impact

Publishing and cataloging lecture images provided more flexible and convenient access to images, which in turn, prompted formation of small study groups to review and analyze images. Online quizzes with guided feedback allowed students to practice critical thinking skills with images not shown or discussed in class. Student surveys indicated that 84% of students agreed or strongly agreed that the quizzes were helpful, and 94% agreed or strongly agreed that the digital image library was helpful. These two resources directly impacted students' ability to prepare for exams.

The peer-review writing tool provided additional writing opportunities and feedback on their interpretations and analyses of images using proper art history vocabulary. This extra practice positively impacted students' writing skills. Professor Herbert Kessler, the first faculty member to use these resources, stated that the quality of student papers and exams were the best he had read in over 30 years of teaching the art history survey.

The art history resource librarian posted his contact information on the course website so that students could consult him when researching content for their course papers. Before development of the course website, the resource librarian typically consulted with 2-3 students per semester in this course. After publishing his contact information in the research section of the website, he consulted with 20-25 students per semester. This is significant because many students enrolled in this course are freshman or sophomores. Research skills learned in this course are highly relevant to those needed in future courses.

Student survey and interview comments included the following.

- "Overall this is by far one of the most comprehensive WebCT sites that I have experienced. I believe that it has proved invaluable to not only my studies, but also to those of numerous classmates of mine! Thanks!"
- "…the art history site is the most effective site offered by any of my classes."
- "I thought it was a great resource and very helpful in keeping up with class and preparing for exams"
- "It's very helpful, especially all of the quizzes"
- "The quizzes were so helpful. I don't know how I would have managed without them. It's great to have all the information right in one place."
- "This is the best website of any of my classes. I'm not sure if it can be improved."

## Future Plans and Leveraged Benefits of AVD Support

The team worked with the art history department during project development to ensure the sustainability of these resources. The department redefined a teaching assistant position and dedicated it annually to support expansion of the resources developed for each year's introductory survey course. This administrative decision will enable new faculty to use digital resources to teach the course and will provide a professional development opportunity to acquire technology skills for one art history graduate student each year.

Because of its leadership in using digital images for teaching and learning, Johns Hopkins University was invited to be one of 14 beta-testers of ARTstor. ARTstor is an initiative founded by the Andrew W. Mellon Foundation that is developing a community-based digital library of images and their accompanying scholarly data for use in teaching and research. ARTstor also provides software for accessing those collections. Johns Hopkins has since become one of the charter partners for ARTstor.

Based on student feedback during a formative evaluation focus group, the project team identified the need for a timeline creation software to enable instructors without web-development experience to create an interactive, web-based timeline. That idea evolved into a software application that was developed by the Center for Educational Resources and is freely available for download at http://timeline.cer.jhu.edu. As of March, 2006, this software had been downloaded over 4,000 times by individuals worldwide and had been designated the winner of Macromedia's 2003 Innovation Award in Higher Education.

The teaching assistants created a film series based on topics covered in class (e.g., *The Agony and the Ecstasy*, *Pollock*) and advertised the series on the website. The TAs scheduled five films over the course of the semester that were shown on artists discussed in class.

## Introduction to Fiction and Poetry I & II

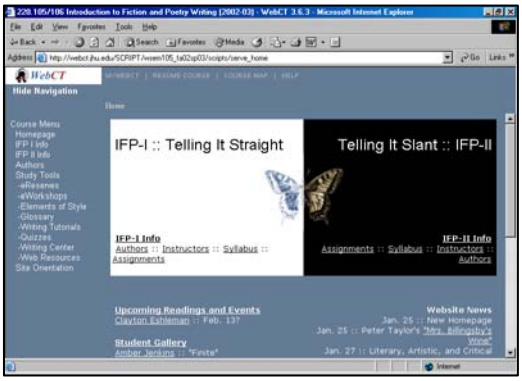
**New Educational Technologies Developed**
**New Student Communication Techniques Integrated**
**Curriculum Redesigned or Created**

**Department**: Writing Seminars
**Typical Enrollment**: 300 students/semester
**Course Type**: Introductory Writing (2 courses)
**Number of Faculty**: 1 faculty – 15 teaching assistants
**Cost**: $24,000

### Course Description

*Introduction to Fiction and Poetry (IFP)* is comprised of two semester-long courses. *IFP 1: Telling it Straight* covers the genres of realist fiction and traditional verse in American Literature. *IFP 2: Telling it Slant* covers the genres of anti-realist prose and free-verse poetry. The class is divided into 15-20 sections of 15 students each. The overall curriculum is managed by a rotating senior faculty member who oversees individual sections taught by lecturers. Sections meet two times a week with an additional day set aside for a writing workshop.

***Introduction to Fiction and Poetry Website***




### Critical Thinking Skills Addressed

Students will be able to:

- read from the perspective of established writers;
- identify the qualities of, and analyze forms in, short fiction and metered verse; and
- compose short stories and poems.

## Project Analysis and Solutions

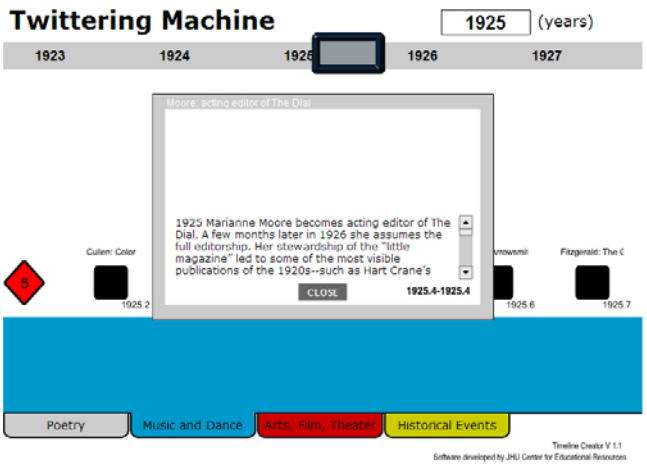
| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| ▪ Large number of sections (10-15) make it difficult to standardize the curriculum. Instructors tend to steer the curriculum of their sections towards their individual expertise – poetry or fiction.<br><br>▪ Many instructors are also graduate students with little teaching experience. | ▪ Create a standardized syllabus for the program.<br><br>▪ Provide instructor training on how to teach the broad curricular content. | A robust course website to support both instructors and students. Syllabus is cross-referenced to common instructor notes, curriculum materials, and suggested teaching strategies. The instructor notes and teaching tips are not accessible by students. | ▪ Content standardized and assessment strategies are defined across sections.<br><br>▪ Instructors enjoy equal access to teaching materials.<br><br>▪ New instructor tutorials are provided on how to teach the course content, particularly in areas outside individual instructors' expertise. |
| ▪ In an intensive writing course, the focus is on editing and revision.<br><br>▪ Students requested comprehensive feedback on their writing through out-of-class workshopping (critiquing) opportunities. | ▪ Create an online environment that allows students to 'workshop' their papers with other students online between class meetings.<br><br>▪ Post contact information for the University's Writing Center. | ▪ eWorkshops – a WebCT discussion board is used to solicit feedback on draft writing assignments.<br><br>▪ Hyperlink to the JHU Writing Center posted in the course website. | ▪ Students receive peer and instructor feedback on drafts through the eWorkshops section.<br><br>▪ Students encouraged to contact writing consultants in the Writing Center to help them with their drafts. |
| Insufficient background information on authors' lives available to students. | Provide biographies on the major authors covered in the class. | Biography section developed includes a short biographical narrative, photographs of the author, and additional web resources. | Students empowered to learn more about course authors, which informs their interpretation and analysis of course writings. |
| Understanding meter and reading poetry with the proper stresses and rhythms is new to many students. | Provide audio clips of poets reading their works. | For selected poets, the biographies included streaming audio of the poets reading their works. | Students learn how to read poetry and develop a natural sense of meter with the proper rhythms and stresses, in several instances, directly from the author. |

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Students requested supplementary information on writing techniques. | Post supplemental information on concepts covered in class. | Supplemental information posted in course website.<br>▪ *Elements of Style* section provides lengthy descriptions and examples of stylistic writing techniques (e.g., rhythm & meter).<br>▪ Glossary developed with discipline-specific, brief definitions of key writing terms.<br>▪ Movements section provides definitions and examples of writing from various writing movements (e.g., Modernism). | Students encouraged to consult the website for out-of-class guidance and additional examples of key writing techniques and styles without requiring time consuming research to locate resources. |
| Students lack historical knowledge about the eras in which the authors wrote. Students need access to contextual material in relation to the texts being studied. | Develop a timeline that includes background on literature published and information on historical events of the same period. | CER's Timeline Creator software developed. The Writing Seminars version of Timeline named the *Twittering Machine* after a the 1922 Paul Klee Painting. | Students acquire contextual background on the period during which course authors wrote. |

## Summary of Impact

To help students meet learning objectives listed above, a number of supplemental resources were posted online. (See previous table.) As students composed short stories and poems, they posted drafts and received peer feedback outside of class through the eWorkshops section. Students also contacted writing consultants in the Writing Center through the course website.

Jean McGarry, chair of the Department of Writing Seminars, comments on the benefit of these resources.




***The Twittering Machine***

"When students are learning to read critically and to write fiction and poetry for the first time, they need to immerse themselves in literature. And they need to write and rewrite. The website provides out-of-class guidance:

> extra poems and stories to read, author biographies and photographs to study; literary terms defined and exemplified. …the site provides students with a rich, accessible library."

By standardizing the syllabus and providing instructor materials, instructors benefited from these resources as much as students. New teaching assistants with little teaching experience can now reference the website for resources and instructional tips in areas outside their comfort level. Even seasoned instructors now access materials for topics outside their specialty. In summary, Professor McGarry writes,

> "The website has proven a wonderful tool both for teachers and students of IFP. The enterprising (and digitally astute) student can acquire a broad literary education through the site alone. The average or struggling student can access the site for extra help in writing and literary analysis. The teachers can rely on the site when they are teaching works outside of their specialties (as) the course asks fiction-writers to teach poetry, and poets to teach fiction."

## Future Plans and Leveraged Benefits of AVD Support

Several strategies were employed to ensure that the Department of Writing Seminars would assume ownership of the course website once the AVD grant support ended. First, the project team included a lead instructor who had taught and would continue to teach the course. This person was hired initially as an AVD Fellow to develop content for the first IFP course. The continuing role of this lead instructor (and his facility with web development technologies) provides consistency in web-based course leadership of the project beyond the funding cycle.

Second, the project team identified an undergraduate student with web development expertise to handle site maintenance and content posting. The Writing Seminars department hired the student to establish a foundation for continuing course site development. The department is budgeting for this continuing function. The student staff worked with the project team during the implementation semester to ensure adequate training before AVD funding was complete. The project team also introduced her to instructors to establish the student web developer as the first point of contact for the website issues. The student became sufficiently comfortable and competent in her role and helped with the instructor training for the second IFP course.

A successful handoff of the course resource to the department was ensured when the department chair assumed an active role in improving instructor training and assigning departmental resources for continued content development.

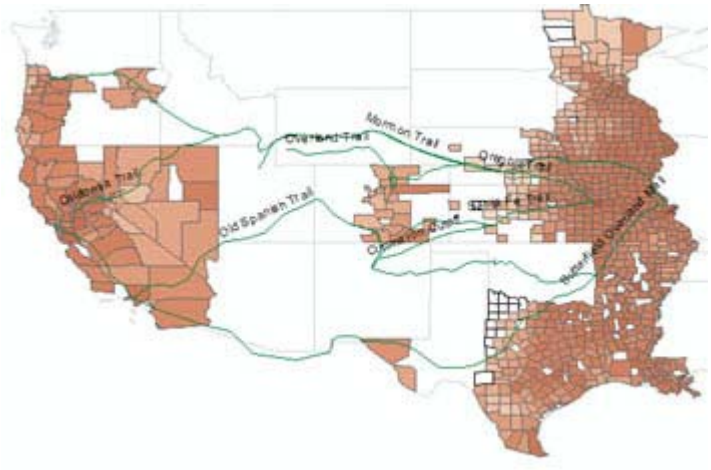
## The American West

**New Educational Technologies Developed**
**New Student Communication Techniques Integrated**

**Department**: History
**Typical Enrollment**: 60 students/year
**Course Type**: Introductory Survey
**Number of Faculty**: 1 faculty
**Cost**: $6,000

### Course Description

*Interactive Map Showing Settlement Patterns vs. Settler Trails*




*The American West* course explores the many definitions of the American West. Students explore the settlement of the West and the factors that influenced the migration process during the 19th century. The weekly course format consists of two 1-hour lectures and one 50-minute discussion section.

### Critical Thinking Skills Addressed

Students will be able to:

- analyze and articulate the role of the West in US History;
- describe the significance of the West and of "frontiers" in American culture;
- analyze the West from multiple perspectives;
- investigate diversity in American life through examples in the West (e.g., region, race, ethnicity); and
- use the West to explore the importance of the physical environment (along with transportation and communications) in shaping settlement patterns in American history.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Students have limited access to primary sources relevant to the evolution of the West. Primary resources include historical documents, photographs, and other artifacts in their original context. | Link to web-accessible collections that include primary sources. | Use Web Resources section in the WebCT course site to link online collections that include primary sources available through the Library of Congress, other universities, and museums. | Students access a large number of primary sources for research assignments. Primary sources enable students to develop their own interpretations and conclusions without influence from secondary analysis. |
| Students have difficulty comprehending the multiple factors that influenced the settlement of the American West. | Develop an interactive map that allows students to explore the many factors that influenced the development of the West | ESRI's *ArcView* software – a Geographic Information System (GIS) Application – used to develop interactive map. Populate with census data, other numerical datasets, and geographic maps. | Students choose from over 100 data sources to highlight relationships among the economic, geographic, and political developments that influenced western migration in the 19th century. |
| Younger students are not familiar with how the West has been historically represented in popular culture. | Develop a gallery of images, audio, and movie clips that purport to describe or represent the West. | Streaming audio and video technologies and digital images were integrated into the gallery section using WebCT. | ▪ Students review songs, view photos and artwork, and watch movie clips that depict the West from a variety of perspectives in society over several decades.<br>▪ Students contribute materials to a course gallery from resources identified through their own research assignments. This allows the course gallery to evolve into a course repository that will benefit future students who take this course. |
| ▪ Students requested 24/7 access to course resources.<br>▪ Course data must be easily reusable with slight modifications from semester to semester.<br>▪ Printed course materials are often lost and re-issued. | Develop a course website that provides centralized access to all resources. | Created a course website in WebCT that includes course syllabus, requirements, calendar of events, announcements, writing examples, and research resources. | Centralized "one-stop" shop for all course information and resources that is available 24/7. |

## Summary of Impact

A web resources page linked students to numerous websites related to the West, including web-accessible collections of primary sources. Students studied Lewis and Clark's expedition by viewing digitized illustrations originally contained in their journals. Students researched US-Indian relations through an electronic copy of the treaty between the US government and the Lakota that followed the Wounded Knee Massacre of 1868. These resources are represented in their original context, unencumbered by interpretations about key historical events and trends. Thus, students rely on their own critical thinking capabilities to identify relationships and analyze these resources.

Many students in this class are unfamiliar with the representations of the West in popular culture. While this course focuses on the West of the 1800's, representations of the West from this period continue into the 20th century and reflect changing values in American society. Students can access video clips of John Wayne films, audio recordings of classic Western tunes such as "Oh! Susanna," or photographs of President Theodore Roosevelt as a cowboy. Streaming technology is used to make copyrighted material available under Fair Use guidelines. These materials introduce students to classic representations of the West and allow them to investigate diversity in American life through different perspectives.

***Teddy Roosevelt as Rough Rider***

The most challenging objective was creating tools through which students analyze how the "idea" of the West shaped settlement patterns, along with transportation, communications, politics, and economic development. An interactive map created with Geographic Information Systems (GIS) technologies provided a tool to explore the evolving definition of the West over the 19th century. In brief, GIS is a powerful mapping tool that can create customized maps based on numerical data and allow users to display those data graphically. Students can select from over 100 data sources to analyze how economic, geographic, and political factors influenced the migration of the US population across the 19th century. For example, students can see how geographic characteristics (mountains, rivers) influenced the establishment of frontier trails (Sante Fe, Oregon Trail), which ultimately affected farming patterns and population settlement. The power of this map is that students control the variables they want to view as they try to discover the relationships among a variety of developmental forces.

## Future Plans and Leveraged Benefits of AVD Support

The professor plans to use and expand these resources when he teaches this course again. The resources were designed for modularity so they can be easily used in other courses per faculty request. The graduate students who worked on this project plan to take

advantage of these resources for courses they teach. Faculty in the Masters of Liberal Arts Program have also expressed interest in using these resources.

Because the audio clips, video files, and images are housed in WebCT, students who take the course will be able to contribute resources they identify for the benefit of future students.

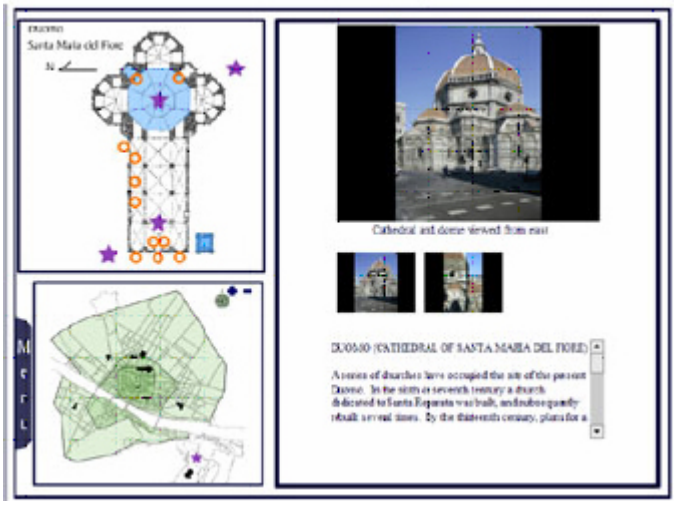
# The Interactive Florence Map

**New Educational Technologies Developed**

**Department**: History of Art
**Course Type**: Multiple Art History Courses
**Number of Faculty**: 1 faculty
**Cost**: $4,300

## Course Description

This resource is designed to be used by students and faculty of any art history course that includes works produced in Florence during 1285-1500. The content can be easily updated to serve other art history courses (based on other cities or time periods) as well.



*Screenshot of Florence Map*

## Pedagogical Issue

Works of art both influence, and are influenced by, settings in which they are created: they are encountered as part of the sensory continuum of urban space; they function within specific environments that charge objects with meaning; and they provide a focus for memory, social identity and devotional attention for individuals and groups. The problem was to link a sense of this multilayered contextual meaning with perception of the original spatial and physical context of Florentine objects. Much of the art originally designed for churches and homes in Florence now reside in museums, divorced from their intended locations. Teaching with slides in a classroom can provide context only to a limited extent. The faculty sought a teaching resource that offered a sense of the spatial milieu for which the objects were originally created and through which they were initially experienced. The resource should suggest how the objects functioned as part of the urban topography of the late medieval/early modern city.

## Solution

Using Macromedia Flash, the project team produced an interactive, web-based map of the city of Florence to be used both by an instructor within the classroom and by students for personal study. The interactive map of Florence communicates the layout of the town and key architectural monuments. Clicking on a building reveals its original floor plan and the location of major works of art originally housed in the structures. Users can 'tour' the buildings, viewing art such as paintings, sculptures, and frescoes. A narrative accompanies each work to supplement the visual cues of the map. Students explore and

analyze information about the environment of Renaissance Florence. They draw conclusions about the meaning and relevance of the architecture and objects to the individuals and groups who sponsored and experienced them. Students perceive the relationship between site location and the relative political and social importance of objects created for the same structure. For instance, a series of paintings in the same church might cumulatively reinforce the religious experience of one kind of viewer, or, given the fact that such paintings are often marked with the identities of the family or group interests for whom they were produced, they might reinforce a sense of competition for another kind of beholder. The Florence interactive map was designed as a general template that can be applied to other cities as well.

## Summary of Impact

Professor Stephen Campbell planned to use the Interactive Florence Map in his course, *Early Renaissance: From Giotto to Leonardo,* scheduled to be taught in Spring 2005. However, Professor Campbell was invited to be the faculty-in-residence at the Johns Hopkins Villa Spelman in Florence that semester. The Villa Spelman houses the university's Italian Studies program in Europe and is widely regarded as an important research institution by humanities scholars worldwide.

Due to the change in schedule, Professor Campbell made the tool available to the students residing at the Villa Spelman. This was an excellent opportunity for students to use the map in Florence itself. Macie Hall, President of the Visual Resources Association and lead technology developer on the project, commented on how students could take advantage of the map.

> "Before students toured churches and palaces, they could familiarize themselves with the floor plans and original works of art housed in those locations. This allowed the students to preview areas that the professor would highlight onsite. The map also provides an excellent tool for reviewing the sites visited. In addition, after visiting museums, students could view the original sites that housed works of art before they were relocated. This enables students to recontextualize those objects. With so much to see in Florence, the map helped students focus on the works of art that are significant to the courses they are taking at the Villa."

## Future Plans and Leveraged Benefits of AVD Support

The content of the Interactive Florence Map will be imported into the CER's Interactive Map application to take advantage of the extended functionality provided by the software.

The Florence Map tool was presented at the 2006 Art History Resource Librarian Conference in Banff, Alberta, and the 2005 Visual Resources Association conference in Miami, Florida.

## Art Museum Policy and Practice: Information in the Art Museum

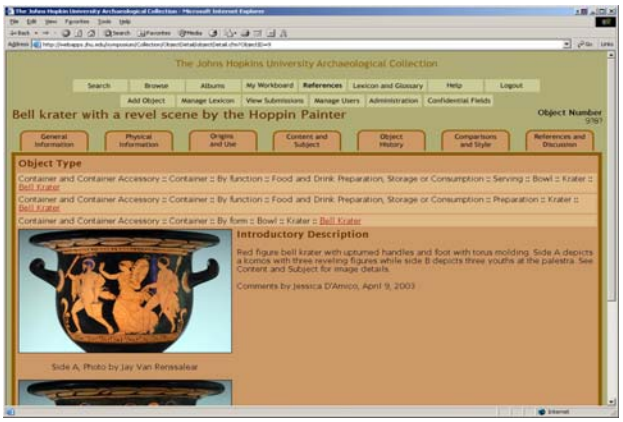
**New Educational Technologies Developed**
**New Student Communication Techniques Integrated**

**Department**: History of Art
**Typical Enrollment**: 12 students/semester
**Course Type**: Upper level seminar
**Number of Faculty**: 1 faculty
**Cost**: $9,800

### Course Description

*Art Museum Policy and Practice: Information in the Art Museum* introduces students to the issues facing modern museum professionals: collecting, analyzing, filtering, and presenting information to the variety of individuals who use museum collections. Using the Johns Hopkins Archaeological Collection, students develop and contribute to an interactive database that provides information on each object's content, origin, significance, and use, as well as reference resources about the objects. The class meets once a week for three hours.

***Screenshot of catalog database***




The course addressed two challenges. First, students and scholars require varied information to effectively study works of art or ancient objects. Second, museum collections must do more than display the collections as physical objects or images; they must enhance display with relevant supplementary information.

### Critical Thinking Skills Addressed

Students will be able to:

- develop an analytical framework for gathering physical and scholarly information about museum artifacts in the Johns Hopkins Archeological collection; and
- present information about specific objects and their physical and historical contexts to advance collection management, collection scholarship, and public understanding.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| ▪ Students researching objects in the JHU Archeological Collection encountered<br>▪ inadequate information about the objects they studied − an outdated database contained inaccuracies and differing interpretations of objects and it lacked standardized vocabulary across entries and fields for bibliographical references.<br>▪ insufficient opportunities to interpret objects in a peer-reviewed environment.<br>▪ absence of repository to archive research upon which future students and scholars could build.<br><br>▪ Existing software available to museum professionals is primarily an inventory management application, with little pedagogical implications. | Create a web-accessible database to store information about objects in the collection and archive high-quality digital images of the objects. | Web-accessible databases in MS Access and Cold Fusion were developed to allow students to enter archaeologically-appropriate and standardized information about objects (dimensions, material, origin, bibliographic references) and participate in discussion forums about the objects. | ▪ Students experience real-world challenges of researching, analyzing, and recording information about museum objects.<br><br>▪ Students' entries are vetted by experts in the field, improving students' critical thinking skills by requiring them to revise their work based on scholarly standards. Final entries resemble an ongoing scholarly exchange rather than static, one-time "data" entry.<br><br>▪ Databases allow students to easily modify their entries as continued research prompts revised thinking about objects and their significance.<br><br>▪ Controlled vocabulary helps standardize information entered about each object.<br><br>▪ Future students can review and enhance entries for previously cataloged objects as they conduct further research.<br><br>▪ JHU Archeological Collection benefited from the development of a web-accessible catalog of the Collection's objects. |

## Summary of Impact

This web-accessible database stimulates critical evaluation of each object of the archaeological collection and requires each user to become an interactive participant in contributing to the research on objects in the collection. Objects are photographed and sketched. Descriptive titles, measurements, and material descriptions are entered along with in-depth historical and inscription information. A controlled-vocabulary characterized by a hierarchically ordered lexicon and a geographical atlas molds user-submitted text to international standards for museum nomenclature. The software offers a cumulative guide to interpretation of each object in scholarly publications and in new research − including research by students in this course.

By including a discussion board, the system establishes a forum for scholarly exchange. The database invites questions, comments, and new interpretations from its users. It also elicits critical response to the information, creating, in effect, an evolving electronic symposium. Through contributions of research questions, identification of objects for comparison, and development of informed opinions, students in the course participate in intense critical thinking about the protocols for subtle interpretation of objects.

This project benefits students taking Museum Studies courses and the JHU Archeological Collection. As students select collection objects to research and analyze, they hone their critical thinking skills and contribute to improved information about the collection itself. The skills required for database work mirror challenges that students will face as future museum professionals.

Macie Hall, a senior staff member in the History of Art department, who supported the development of this project and trained students to use it, said, "Students found the tool easy to use and they liked its image archiving capability. More importantly, they appreciated the ability to add their research to the database over time and to experience scholarly collaboration and review."

## Future Plans and Leveraged Benefits of AVD Support

In part because of excitement about this database, a Johns Hopkins donor contributed over 50 items of pre-Columbian art to the JHU Archeological Collection in 2003. Professor Lisa Deleonardis, who teaches Ancient Art, has expressed interest in entering those items into the database. The CER will provide initial training and consultations to any professor who wishes to integrate this tool into his or her curriculum.

## Great Books: The Western Tradition

New Educational Technologies Developed
New Student Communication Techniques Integrated
Curriculum Redesigned or Created
New Student Assessment Methods Implemented

**Department**: Multiple Departments
**Typical Enrollment**: 80 students/year
**Course Type**: Introductory Humanities Course
**Number of Faculty**: 4 faculty members– 1 teaching assistant
**Cost**: $20,200

### Course Description


***The Great Books Course Website***

A course developed specifically in response to the AVD challenge, *Great Books: The Western Tradition* is an undergraduate course in which students read, analyze, write about, and discuss themes embodied in classic humanities works. Organized around a hybrid lecture-seminar format, the course is team-taught by four senior faculty, who share lecture responsibilities for the class of approximately 80 students. In addition, each senior faculty leads a small, 20-student discussion section twice a week for the entire semester. *Great Books: The Western Tradition* constitutes a significant addition to Hopkins undergraduate education because small, discussion- and writing-intense seminars have not been readily available.

### Critical Thinking Skills Addressed

Students will be able to:

- read and analyze multiple texts;
- write focused, concise, and original analyses of texts;
- refine and edit analyses in response to frequent practice and feedback; and
- critically discuss texts in small and large group settings.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Course content is revised from semester-to-semester because of rotating faculty assignments; students often lose printed course materials, which must be re-issued. | Develop a robust course website that contains all course content and annotations and is accessible to students 24/7 from the desktop. | ▪ Created a course website in WebCT.<br>▪ Website included course syllabus, requirements, calendar of events, announcements, writing, and research resources. | ▪ Centralize "one-stop" shop for all course information and resources and enhance communication among students and between students and faculty.<br>▪ The site re-uses the majority of course content, requiring only partial content revision with faculty rotation. |
| Students require feedback and constructive criticism of their analyses between class sessions. | Facilitate feedback through the course website. | ▪ Integrated threaded online discussion forum.<br>▪ Structure online discussions through weekly questions posted by instructors and monitored by TAs.<br>▪ Require students to post contributions weekly. | ▪ Students are guided through structured discussions about weekly readings in small groups.<br>▪ Students reflect on the readings and peers' responses to the readings. Discussions extend beyond the physical classroom. |
| ▪ Students require timely, feedback on writing assignments.<br>▪ Grading, commenting, and returning papers is time consuming, and difficult to track. Handwritten comments are often illegible. | Online submission, grading, and redistribution of assignments encourages refined analysis through frequent practice and feedback. | ▪ Assignments are submitted, evaluated, graded, and returned to students in electronic format via the course website.<br>▪ Grades for all assignments are available to each student via the course website. | Instructors save time and provide more robust feedback to students. Student evaluations are archived in a digital format. |

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Team-taught course involved 4 faculty grading 4 sections of students. | Create a standard grading rubric for all faculty to follow when grading assignments. | Post grading rubric with assignments on the course website to inform students of common faculty expectations. | Instructors adopt a common grading standard. Students can view all assignments and faculty comments cumulatively over course duration. |

## Summary of Impact

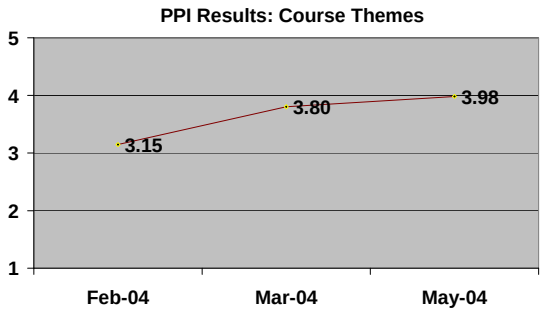
The online discussion board extended classroom discussion between meetings. Structured questions helped students to 1) focus their reading, 2) refine their analyses based on peer and instructor feedback, and 3) sharpen their writing. Information gathered in the student focus group and faculty feedback indicated that instructors and students alike valued the discussion board. The discussion board also enhanced a sense of community for small group sections and a strengthened connections between faculty and students.

Online assignment submission was a boon for both instructors and students. One instructor commented:

> In these two respects, (online) discussion and (electronic submission of) writing assignments, the project not only enhanced, but shaped, the atmosphere of the course. In both areas the actual performance and the written expression of critical thinking was greatly supported.

Instructors found the online submission and electronic grading of assignments transformative and timesaving. They produced higher quality feedback and interaction with students. Students appreciated the generous, highly legible, and digitally archived comments from faculty. Digital assignment submission and comments were especially helpful in tracking student progress from draft to final paper.

A Participant Perception Indicator survey – an evaluation tool to measure change in self-perceived student growth − was conducted at the beginning and end of the semester to evaluate students' growth in critical thinking skills in five areas. Surveys suggested a significant increase in students' self-perceived abilities in the types of analytical skills the Great Book course sought to improve. Course specific PPI results rose by over 20% in both fall '03, and spring '04 semesters. This increase indicates a variety of secondary benefits to the use of the course resources developed for this project.



## Future Plans and Leveraged Benefits of AVD Support

The Great Books course was so successful in its first year that it is now offered annually with continuing funding from the Krieger School of Arts and Sciences Dean's Office. The course is open to all levels of undergraduate students.

Student and faculty feedback led to several modifications. The instructors have modified the discussion board requirement to facilitate student-initiated development of conversations and to extend in-class meetings. In addition, instructors increased their use of the web site and other electronic resources during lectures**.** They display more images and media from the website, and they make direct references to material on the website during lectures. This creates a more powerful link between website content and course lectures.

The digital resources used in this course impacted faculty as well as students. The faculty agreed that online grading would be useful in their other courses, and most participating faculty expressed an eagerness to share the course website resources beyond the course itself. One of them commented:

> Even outside this particular course I will grade online from now on. As long as the website remains up, I will recommend its resources even to students in other courses, including younger grad students.

The CER views the digital resources created for *The Great Books* course as exemplary of good teaching practice at JHU. Course instructors and CER staff have presented these resources in multiple workshops to disseminate information about the advantages to both students and faculty.

# Introduction to the Study of Film and Media

**New Educational Technologies Developed**
**New Student Communication Techniques Integrated**

**Department**: Film and Media Studies
**Typical Enrollment**: 40 students in 1 section/semester
**Course Type**: Introductory Survey
**Number of Faculty**: 1 faculty
**Cost**: $19,900

## Course Description

*Introduction to the Study of Film and Media* provides an historical overview of major film movements and grounds students in cinematic nomenclature and filming techniques.

***Screenshot of the annotated film database***

## Critical Thinking Skills Addressed

Students will be able to:

- acquire a working knowledge of, and use terms and concepts associated with, film aesthetics; and
- analyze elements used by filmmakers to communicate meaning.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| A static textbook cannot sufficiently convey the visual and auditory nature of film elements and techniques. | Develop a robust repository of online film supplements, using clips that depict film theory and vocabulary, to convey core concepts to students. | Digitized video clips into Windows streaming media format. These clips were posted on the course website with supplemental annotations that further explain the relevance of the clip to the specific topic. | ▪ Students can 'freeze' film clips on specific images to isolate, identify, and discuss formal elements of film language.<br>▪ Students can review course material before and after class. |

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Constricted class time limits adequate exploration of the intricacies of film, conceptualization of key film theories and techniques, and the clarification of any misconceptions or misunderstandings. | Facilitate continued discussion of course topics outside of formal class time. | WebCT discussion board and chat sites developed. TAs pose questions, discuss ideas, and critique student drafts before students submit their writing assignments. | Students gain opportunities outside of class to articulate terms and concepts associated with film aesthetics in a monitored environment. |
| Class time restrictions prevent adequate writing and review opportunities for students. | Develop a means for students to share written assignments to peers in a structured format, facilitating thoughtful peer review, reflection, critique, and improvement of draft essays prior to final submission. | Students post drafts on the WebCT discussion board so that peers can provide comments. | ▪ Rather than waiting until assignments are graded, students gain early feedback on initial interpretation of the material and the clarity of their expression.<br>▪ Discussion board enables students to sharpen their ability to critique the ideas of others and to articulate responses opposed to their own ideas. |
| Abundance of course materials available through multiple sources with different access points. | Consolidate course materials into an easily accessible resource that is available 24/7. | Course website developed in WebCT. | ▪ Students access course resources through one location.<br>▪ Limited access to video clips meets copyright regulations. |

## Summary of Impact

The faculty posted supplemental content in the course website as a reference for students after class. The website also presented opportunities for students to practice articulating these concepts and terms beyond class discussion. TAs facilitated and guided online conversation through WebCT's discussion board and chat tool. TAs encouraged students to participate by posing questions to students and offering comments on drafts of writing assignments. Students also participated in a peer-review writing assignment.

Providing students expanded access to film clips through the course website was key. Students can review film clips online at any time and as often as necessary. Streaming technology also allows them to freeze clips to analyze static images.

Student course evaluations suggest that the ability to access the film clips database was the most valuable element of the resources developed for the course. The next most useful element perceived by the students was the ability to draft essays for critical review by others before final submission. The faculty wrote:

> "I don't think there is any course in the film program that *couldn't* benefit from the kinds of resources we developed this semester. Because film is a visual medium, its adaptability to web resources is obvious. Students in our production classes, for example, can share each others' work online. Students in history-oriented classes can benefit from the timeline component. And all classes can benefit from the ability to view film clips and post ideas and discussions on the web."

## Future Plans and Leveraged Benefits of AVD Support

To ensure the project's continued evolution, the Film and Media Studies department will offer internships and work-study opportunities to attract student staff to maintain content development and, with input from other faculty, to design new web sites for other film courses.

## The Documentary Tradition

New Educational Technologies Developed
New Student Communication Techniques Integrated
Curriculum Redesigned or Created
New Student Assessment Methods Implemented

**Department**: Art Workshops/History of Science, Medicine, and Technology
**Typical Enrollment**: 20 students/year
**Course Type**: Introductory Survey
**Number of Faculty**: 2 faculty
**Cost**: $6,800

### Course Description

*Dorothea Lange Photograph*

Co-taught by a photographer and a historian, this course explores the documentary tradition in photography. Students analyze the works of classic and recent documentary photographers and practice the art of documentary photography through a series of short assignments and a semester-long documentary project inspired by the masters. The course meets for 1 three-hour session each week.

### Critical Thinking Skills Addressed

Students will be able to:

- use the Feldman Theory of Analysis to describe, analyze, interpret, and evaluate photographs;
- identify major genres in the history of photography, including details about photographers, their work, and the technology of cameras and developing techniques;
- manipulate features on their own cameras to produce photographic effects similar to those illustrated in class; and
- gain a working knowledge of Photoshop to adjust images as well as add text.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| In earlier photography courses, students had insufficient time to review and provide feedback on their peers' photographs because of the limited class time and the lengthy process required to develop print photography. | Replace print photography with digital photography and allow students to post images online before class. | ▪ Digital cameras available for students to borrow to complete course assignments.<br>▪ "Gallery" software incorporated into course website. Gallery is an open-source application that allows students to upload and share digital photographs online. | ▪ Adoption of digital photography and incorporation of *Gallery* allowed students to publish weekly assignments before class so faculty and students could analyze photos before class meetings. This facilitated more lively discussion and critical analysis during class because everyone had adequate time to preview images.<br>▪ Cost of purchasing film and darkroom materials reduced. |
| Because this was a new course at Johns Hopkins, faculty had limited access to relevant images for teaching. | ▪ Partner with the Maryland Institute College of Art (MICA) - a highly regarded fine arts college - to digitize images from its documentary photography collection.<br>▪ Compile a list of web resources to supplement course content. | ▪ Scanning technology<br>▪ Develop a web resource compendium in the WebCT course site. | ▪ Faculty at Johns Hopkins widened their access to a range of digitized documentary photographs through partnership with MICA.<br>▪ MICA obtained digital copies of their slides to initiate development of a digital image library. |
| With traditional 35 mm slides,<br>▪ Students have limited access to course images outside of lectures.<br>▪ Faculty can display only those images assembled for each individual lecture. | Digitize all course slides and catalog them in a web-accessible digital image library with accompanying scholarly data. | ▪ High-resolution scanning<br>▪ Introduce Madison Digital Image Database (MDID) – a software application that archives digital images and catalogs accompanying scholarly information along with faculty remarks. | ▪ Students can review any lecture image at any time from any Internet-connected computer.<br>▪ Faculty can show any image cataloged in any class, including images from past lectures.<br>▪ Faculty can magnify image details at will in response to student questions. |

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Faculty wanted to sustain class discussions beyond weekly meetings. | Integrate an online discussion board within the course website. | WebCT's discussion board. | ▪ Faculty initiate discussions on course readings before class by posting readings and questions to the class online.<br>▪ Students provide constructive feedback on peers' photography assignments using the discussion board. |
| Many students required fundamental training on digital photography and image editing. | ▪ Create tutorials on editing photographs using Photoshop.<br>▪ Provide training on digital photography. | ▪ Tutorials posted online in the course WebCT site.<br>▪ The professor provided extra training sessions outside of scheduled class time.<br>▪ The project team partnered with the Digital Media Center (DMC) – a student multimedia lab support center – to provide additional training sessions and consultation services. | ▪ Students access just-in-time training using the online tutorial.<br>▪ Students consult with professional staff and attended training sessions through the DMC. |

## Summary of Impact

"Images, like poetry, repay repeated reading, which simply isn't possible if you're working with slides," stated one faculty in the project evaluation. The Madison Digital Image Database provided 24/7 access to images shown during lecture. This made practicing the Feldman Theory of Analysis and identifying major genres in the history of photography more convenient. Student confidence level in identifying major genres in documentary photography rose form 2.6 to 3.8 on a scale of 5 on the Participant Perception Indicator (PPI) survey, an evaluation tool to measure change in self-perceived student growth that was conducted in the course.

By eliminating the time to develop print photography, students spent more time composing photographs, which translated to more time modeling the documentary photographers they were studying.

Creating digital photographs and posting them in the Gallery tool directly impacted students' ability to analyze, interpret and judge their peer's photographs. *Gallery* permits students to post photographs online so their peers can review images before class. Time traditionally spent reviewing photographs in class is now dedicated to discussion, enabling more students to benefit from critiques of their photographs. Peer reviewers provide more meaningful feedback because they have more time to review images.

In some cases, the amount of time required for the cycle of taking a photograph, eliciting feedback, and then integrating suggestions in revised photographic compositions actually decreased. In earlier photography courses, students had to wait until class to secure critiques of their photographs – a week long process. Students now provide feedback before class through *Gallery* and the course discussion board. The photographer uses that feedback to compose another photograph before showing it in class.

The Gallery tool also helped the faculty evaluate how students responded to feedback.

> "Having the images online enabled us to establish an archive of images and comments. We could see who was taking advice and putting it into practice, and who wasn't. We could watch the commentary become increasingly sophisticated over the course of the semester."

Students' overall response to the course resources was positive. Examples of student comments include the following.

- "I mostly use Gallery and discussion board. The result is incredible. The stuff does what it should."
- "There are more resources than we need. You guys covered all the bases."

The faculty commented that the final photographic essays were an order of magnitude better than those submitted in other photography courses they have taught. Students' perception of their experience level in creating a photographic essay rose from 1.9 to 3.6 on a scale of 5 on the PPI survey.

## Future Plans and Leveraged Benefits of AVD Support

Both faculty expressed their pleasure with how well the resources helped them refine this course and they plan to offer the course again each fall. The faculty have also begun to adopt the resources in other courses they teach. Prof. Phyllis Berger of the Art Workshops department now uses the digital cameras and *Gallery* in her introductory photography courses. Prof. Bill Leslie of the History of Science, Medicine, and Technology Department is using the Madison Digital Image Database to teach with digital images in his "Seven Wonders of the World" course.

The success of this project encouraged an anonymous individual to donate funds to upgrade a classroom in the Art Workshops department to a "smart classroom" − a technology-enhanced teaching facility. Demand for "smart" classrooms on campus exceeds supply. Johns Hopkins' plan to upgrade traditional classrooms is incremental and limited by information technology budgets. This project-inspired donation eases the financial pressure in at least one facility and creates a new smart classroom that will benefit many faculty and students beyond this course.

A welcome added benefit outcome of this project is the strengthened relationship between the Johns Hopkins and the Maryland Institute College of Art (MICA), a Baltimore fine arts college with a national reputation. Johns Hopkins benefited from this relationship by adding documentary photographs to its visual resource collection. MICA

benefited by receiving digital copies of the slides they loaned to Johns Hopkins, thus allowing them to begin a digital conversion of their visual resource collection.

Professor Leslie presented his work from The Documentary Tradition at an invited lecture at the Rochester Institute of Technology in December, 2003. RIT posed the question of how to teach humanities to science and engineering students, and Professor Leslie took advantage of the opportunity to showcase the class in a lecture on "Why the Civilizing Mission is the Wrong Mission for the Humanities."

# Introduction to the History of Early Modern Philosophy

**New Educational Technologies Developed**
**New Student Communication Techniques Integrated**

**Department**: Philosophy
**Typical Enrollment**: 50 students/year
**Course Type**: Introductory Course
**Number of Faculty**: 1 faculty (rotating each year)
**Cost**: $10,300

## Course Description

This course introduces students to the works of the early modern period in Western philosophy – approximately 1600-1800 – with special emphasis on Descartes, Locke, Hume and Kant.

***René Descartes***

## Critical Thinking Skills Addressed

Students will be able to:

- identify the philosophical question(s) addressed in the works assigned in the course;
- explain (in their own words) the arguments advanced in each work;
- discuss the influences (philosophical, historical, cultural) that impacted the arguments and subsequent criticisms of them; and
- critically evaluate arguments in their historical context.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| ▪ Students have insufficient historical background for analyzing and evaluating works of philosophy.<br><br>▪ Course time constraints allow faculty to only provide a thumbnail sketch of the important historical foundations of the works. | Create a timeline that communicates information about historical events occurring during the period in which early modern philosophers wrote. | Created a web-based, interactive timeline using the CER's Timeline Creator software to provide background information on historical events relevant to the lives of philosophers along with writings by early modern philosophers (including supplementary texts not covered on the syllabus). | ▪ Professor refers to the timeline during lectures to highlight important historical events that influenced the writings of philosophers.<br><br>▪ Students can explore the timeline after class to learn more about targeted historical events on their own time. |
| The boundaries of class time limits discussion on the course readings. | Extend class discussions on the week's reading through the course website. | Post guiding questions on the week's readings in the WebCT discussion board. Discussions begin before students come to class. | ▪ Professor evaluates topics causing most difficulty and addresses these issues during class.<br><br>▪ Student discussions in class are richer.<br><br>▪ Students are encouraged to complete readings on time. |
| Students need remedial instruction on philosophical concepts and topics. | Make library subscriptions conveniently available to students including the Routledge Encyclopedia of Philosophy, Stanford Encyclopedia of Philosophy, and Oxford Companion to Philosophy. | Provide direct links to library resources through the course WebCT site. | Students can consult library resources for background information on key topics related to the readings. |

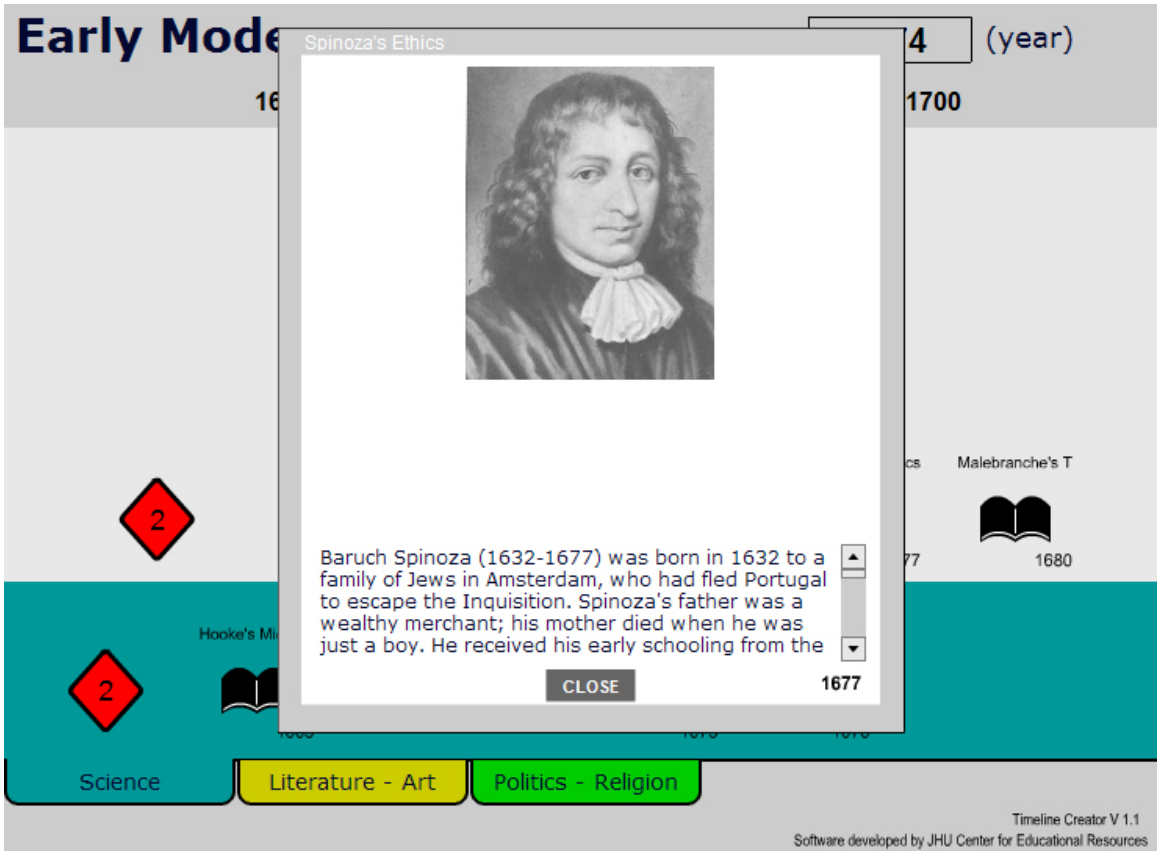
## Summary of Impact

Students found the timeline helpful with one student humorously quipping that it was a tool that tempted him to procrastinate on other projects. Students provided excellent feedback in the project evaluation for improving and expanding the timeline for future semesters. Leveraging the impact of the AVD funding, one professor used student feedback as the foundation for a Technology Fellowship grant proposal to expand course resources after AVD funding concluded.

Students commented that the discussion board fostered discussions of the readings outside class meetings. Feedback from the project evaluation activities included the following sample comments:

- "The discussion board helped me know what I didn't know."
- "The discussion board was easy to use and helped focus my reading."
- "The discussion board helped create a framework in which to analyze the text."
- "It was very good to have an extra question throughout the week that made me evaluate on my own."
- "The discussion board forced students to start thinking about the reading before coming to class."

Regarding his lecture style, the faculty member stated: "I've begun to include more discussion board questions in the lecture to break up the 'straight' lecture format. I've also been able to make more allusions to historical context because students can refer to the timeline."




***History of Early Modern Philosophy Timeline***

Finally, students appreciated having the library resources available through the course website. Although several students began to access the resources directly from the

library website once they knew they existed. One student commented that he "accessed the Routledge Encyclopedia before each new reading to learn more about authors and to obtain additional historical background. I also used it to define difficult terms or concepts related to the course."

A Participant Perception Indicator survey – an evaluation tool to measure change in self-perceived student growth − was conducted at the beginning and end of the semester to evaluate students' perceptions of their development of critical thinking skills in seven areas. Students' perception of their experience in three critical thinking areas rose substantially in three areas on the scale of 1-5.

- 2.9 to 3.4 (17% increase) − Identify the philosophical question(s) addressed in the works discussed in this course.
- 2.8 to 3.6 (29% increase) − Discuss the influences (philosophical, historical, cultural) that impacted the arguments and subsequent criticisms of each work discussed in this class.
- 2.7 to 3.4 (26% increase) − Perform close examination and analysis of course materials and articulate your conclusions to others.

## Future Plans and Leveraged Benefits of AVD Support

Based on the success of this project, the lead faculty member secured a $5,000 Technology Fellowship grant to supplement text and image content with audio and video files. The professor also submitted a grant proposal to the National Endowment for the Humanities to expand the content and functionality of the timeline.

The professor plans to use the resources developed and pedagogical strategies in additional courses, including:

- History of Modern Philosophy: Renaissance through Kant
- British Empiricism: Locke, Berkeley, and Hume
- The Rationalists
- Hermeneutics and Critical Theory
- Seminar in Continental Rationalism
- Topics in Philosophy

## The City: A Multidisciplinary Perspective

New Educational Technologies Developed
New Student Communication Techniques Integrated
Curriculum Redesigned or Created
New Student Assessment Methods Implemented

**Department**: Multi-Disciplinary
**Typical Enrollment**: 30 students/year
**Course Type**: Introductory Survey
**Number of Faculty**: 10-15 faculty
**Cost**: $7,750

### Course Description

This seminar course offers an interdisciplinary approach to the study of urban issues. The primary instructional goal is to enable students to understand how a common topic − the city − can be examined through the lens of a variety of disciplines and appreciate each discipline's contribution to the analysis. The secondary goal is for students to gain a clearer understanding of the character of urban living. Each week students attend a lecture by a faculty member from a different discipline or an individual who works on urban issues. The two faculty sponsors for the course then lead a discussion to connect key ideas and themes between lectures.

***The City***

### Critical Thinking Skills Addressed

Students will be able to:

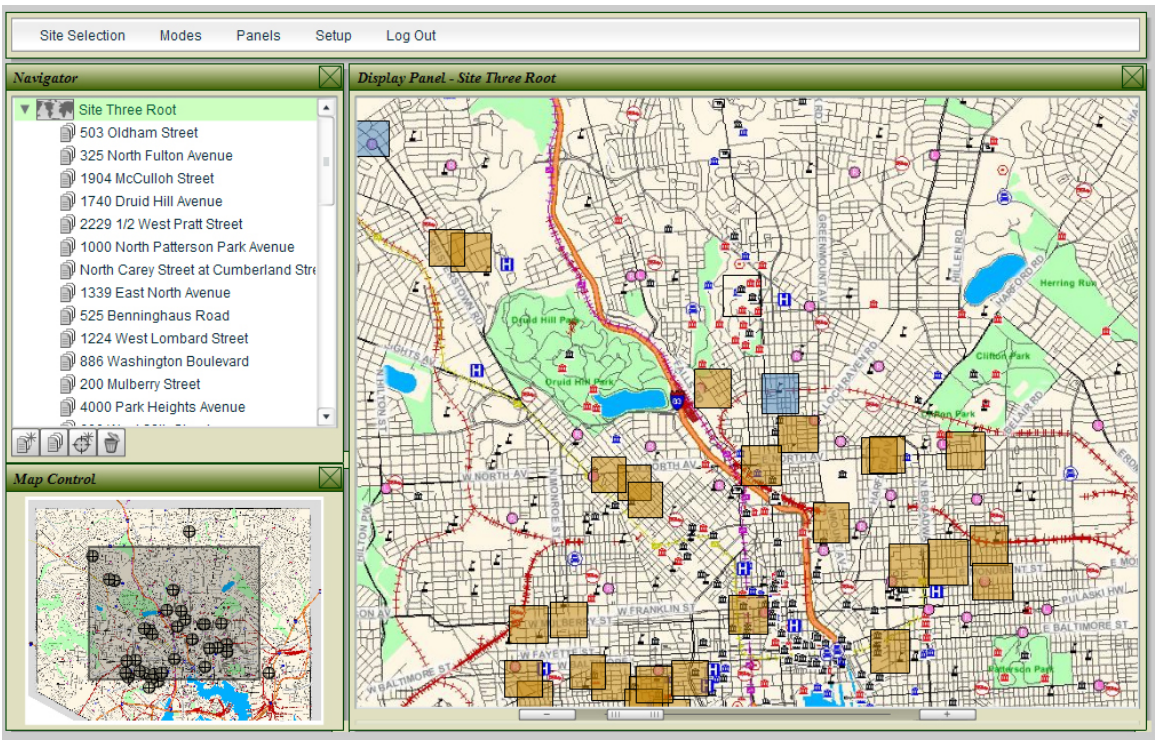
- analyze the differences and similarities of discipline-related research and approaches to urban problems;
- conduct an investigation of an urban issue from the perspective of a particular discipline; and
- identify and discuss key issues and interconnecting forces that influence the development of cities.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| Expose students to the similarities and distinctions between research methods of various disciplines. | Lecturers from different disciplines address facets of a common topic – the city – each week from the perspective of their distinct knowledge base. | Faculty and urban experts from Johns Hopkins and beyond present a one hour lecture each week. The two faculty course directors conduct weekly discussions of the guest lecturers' presentations. | Through the expertise of visiting experts from a variety of fields, students are exposed to a broad range of urban problems and the proficiencies needed to address them. |
| ▪ Content of guest lectures should be accessible for more than one year.<br>▪ Faculty course directors require an efficient vehicle for capturing and showing clips of videotaped lectures in class.<br>▪ Students seek convenient access to course materials. | ▪ Videotape lecturers as they present; then digitize and post them online.<br>▪ Burn lectures to DVD and add chapters to make navigation more efficient in class. | ▪ Digital Audio/Video<br>▪ Streaming Media and WebCT<br>▪ DVD Pro | ▪ Students can review lectures after class.<br>▪ Faculty build an archive of expert lectures for continuing use in future semesters.<br>▪ Faculty can use DVD chapters to navigate quickly to key points made during guest lectures to guide class discussions effectively. |
| Lectures videotaped in the 1990's (when the course was first taught) exist as audio files with static headshots of guest experts; they are not interactive. | Edit videotapes to add supporting images and supplementary video footage to demonstrate specific concepts discussed in lecture. | ▪ Final Cut Pro<br>▪ Digital Video<br>▪ Scanned Images | Key concepts are explained verbally and reinforced through visual illustrations. |
| Create opportunities for students to conduct research that applies concepts raised during lectures or class discussions. | Create "field" assignments in which student teams investigate and report on urban issues. Each team member assumes the role of a researcher from a different discipline (e.g., sociologist, educator, civil engineer). Students report their findings in a media-rich presentation that can be archived for future semesters. | Students use digital technologies to interview professionals who work in the city (e.g., teachers, police, politicians) and then build media-rich presentations of their interviews and conclusions using CER's interactive map software. | ▪ Students apply the concepts learned through lectures to contemporary urban analysis.<br>▪ Student materials are archived and can be used as course content in future semesters. |

## Summary of Impact

Students completed digital field assignments for their final projects to assess their mastery of the learning objectives described above. Student teams investigated urban issues in broad categories such as public health, public art, or public safety by collecting data in situ. Each student on a team assumed the role of a different type of researcher (e.g., economist, criminologist, art historian). In these roles, students conducted interviews with public health experts and teachers using iPods equipped with microphones. They recorded video of needle exchange truck workers on the job. They photographed life on the streets of Baltimore and public murals around the city. Each team assembled its digital images, sound, and video into an interactive, multimedia map using CER's interactive map tool. The tool enabled students to analyze their data spatially and to also present multi-faceted reports to the class.


***Sample Interactive Map Project on Public Art***

Student teams completed their reports by creating digital news articles. Students recorded narratives of their analyses and spliced them with audio recordings, video, and photographs downloaded from the map. Each student was also required to write a final research paper.

This assignment combined creative use of technology with good pedagogy. Students critically analyzed current urban issues and presented their findings through multimedia supplements to traditional research papers. In a focus group conducted as part of the project evaluation, 4 out of 5 students said they preferred the map exercises to writing papers. One student planned to continue her assignment as an independent research study using the interactive map tool.

The CER partnered with the Johns Hopkins Digital Media Center – the campus student multimedia lab – to ensure students had access to the hardware, software, and training necessary to complete their projects.

Students also learned how different disciplines conduct research on urban issues by participating in lectures and discussions with experts from various fields including sociology, art history, and engineering. Several presenters traveled from other institutions so their lectures were recorded for future use. In addition, students watched previously videotaped lectures by urban researchers from Hopkins and beyond who had presented in earlier versions of this course. After each pre-recorded lecture, the two primary faculty engaged students in discussions on how disciplines approach common topics from different perspectives.

To make pre-recorded lectures more visually engaging and easy to navigate, past lectures were digitized, updated with new visual materials from sources such as the Library of Congress, and burned to DVD. Several lectures were also posted on the course website. Posting lectures online allowed the faculty to dedicate class time to discussion and analysis, while enabling students to absorb lecture content at their own pace and on their schedule. Repeated viewing facilitates student analysis of discipline-related research.

A Participant Perception Indicator survey – an evaluation tool to measure change in self-perceived student growth − was conducted at the beginning and end of the semester to evaluate students' perceptions of their growth in critical thinking skills in five areas. The most relevant of these five were students' perceptions related to the statement, "I can discuss similarities and differences of different disciplines' orientations toward posing questions and conducting research." Students' perception of their experience in completing this activity rose from 2.7 to 3.5 (30% increase) on a scale of 5 while their confidence in completing this activity rose from 3.1 to 3.6 (16 % increase).

## Future Plans and Leveraged Benefits of AVD Support

The course assignment was described in the 2006 Horizon Report published by the New Media Consortium - http://www.nmc.org/horizon. This nationally-distributed report analyzes emerging trends in teaching with technology.

## Rise of Modern Science

New Educational Technologies Developed
Curriculum Redesigned or Created
New Student Assessment Methods Implemented

**Department**: History of Science
**Typical Enrollment**: 40 students/year
**Course Type**: Introductory Survey
**Number of Faculty**: 1 faculty
**Cost**: $2,700

### Course Description

The course surveys modern science from 1750 to the present, with 2 lectures and one discussion class per week. Faculty from the History of Science and Technology Department rotate responsibility for teaching this course each year.

*Hubble telescope*

### Critical Thinking Skills Addressed

Students will be able to:

- interpret and analyze key texts from the history of science;
- evaluate how science shapes our world and our worldview, and what happens during periods of change when new ideas or discoveries arise that have the potential to transform our world;
- evaluate how scientific advances relate to economic change and new technologies; and
- analyze how the political context affects science and the roles played by scientists as activists and intellectual leaders.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| ▪ Lack of integration of history of science and related history of technology content.<br><br>▪ Course topics cover events that occurred over 200 years ago, and students have difficulty realizing the impact these discoveries and innovations continue to have today.<br><br>▪ Faculty want students to read and analyze primary texts.<br><br>▪ There is no standard textbook for the course.<br><br>▪ Course is taught by a different faculty each year. Instructional continuity is facilitated by developing an ever-evolving resource archive. | ▪ Develop curriculum that integrates the history of science and technology.<br><br>▪ Provide a set of content modules that can be used and enhanced by faculty (e.g., Newtonian Physics, Maxwell's Equations, Manhattan Project). The modules will follow a common template to facilitate revision by new faculty. | Electronic Textbook created in WebCT with 13 modules for each week of the semester. Each module contains:<br><br>▪ Lecture Summary – general overview of each unit and lecture PowerPoint files.<br>▪ In the News – current news article relating to module content.<br>▪ Signs of the Times – historical background of the time period covered by the module.<br>▪ Instruments and Experiments – explanation of how experiments or instruments worked.<br>▪ Science Applied – examples of technologies that illustrate applications of scientific ideas.<br>▪ Weekly Readings – readings made available through library eReserves.<br>▪ Assignments – instructions on weekly course assignments.<br>▪ Further Study – list of supplemental readings and content. | ▪ Faculty members assigned this course in future semesters have course materials available for teaching.<br><br>▪ Students identify and analyze the connection between scientific discoveries and technological innovations.<br><br>▪ Students assess the roles played by scientists in the political sphere and evaluate the impact of political activity on the evolution of science.<br><br>▪ Students have convenient access to all course materials from a fully-developed course website. |
| ▪ Faculty want students to apply the concepts learned in class to other scientific and technological advances.<br><br>▪ Course is taught by a different faculty each year. Instructional continuity is facilitated by developing an evolving resource archive. | Engage students in creation of new content modules on topics not included in the course website. | For their final course assignments, students use templates to create content modules on topics not currently developed in WebCT.<br><br>Current faculty member chooses the best student work to be added to the WebCT course modules. | ▪ Students apply knowledge learned during class to create new modules that can be used in future semesters.<br><br>▪ Faculty members assigned this course in future semesters have course materials available for teaching. |

## Summary of Impact

This course is currently in the design and development phase. A full evaluation will be reported after the Spring 2006 implementation.

## Spanish Through the Eyes

New Educational Technologies Developed
New Student Communication Techniques Integrated
Curriculum Redesigned or Created
New Student Assessment Methods Implemented

**Department**: Romance Languages and Literatures
**Course Type**: Multiple Courses - Lecture and Web-Enhanced (Hybrid)
**Number of Faculty**: Multiple faculty
**Cost**: $22,000

### Course Description

This project provides audio-visual resources to help students improve their speaking and listening comprehension skills in a cluster of Spanish courses.

- **Spanish Elements I and II**– designed to develop students' basic skills in reading, writing, and speaking, with emphasis on good pronunciation and aural comprehension.
- **Intermediate Spanish I and II** – designed for students to complete basic training in language skills, with an emphasis on reading and composition.
- **Advanced Intermediate Spanish** – designed for students with a solid grammatical foundation and an interest in literature, this course aims to develop oral and written skills through readings, discussions, and compositions based on a variety of texts by well-known Spanish and Latin American authors.
- **Advanced Spanish** - designed for students who have attained a high-to-intermediate level of proficiency and wish to improve their grammar and vocabulary in oral and written expressions, this course exposes students to a deeper understanding of the cultures of the Spanish-speaking world.

In addition, students enrolled in Business Spanish, Medical Spanish, Legal Spanish, and translation courses will benefit from these real-life audio segments to increase their vocabulary and practice grammar structures common to business, international, and trade practices; medical and health professions; and judicial services.

## Critical Thinking Skills Addressed

In developing audio-visual resources for the courses listed above, students will:

- increase their awareness of, and their ability to discuss, cultural topics from multiple contexts and viewpoints; and
- develop listening and comprehension skills through video segments by Spanish-speaking people.

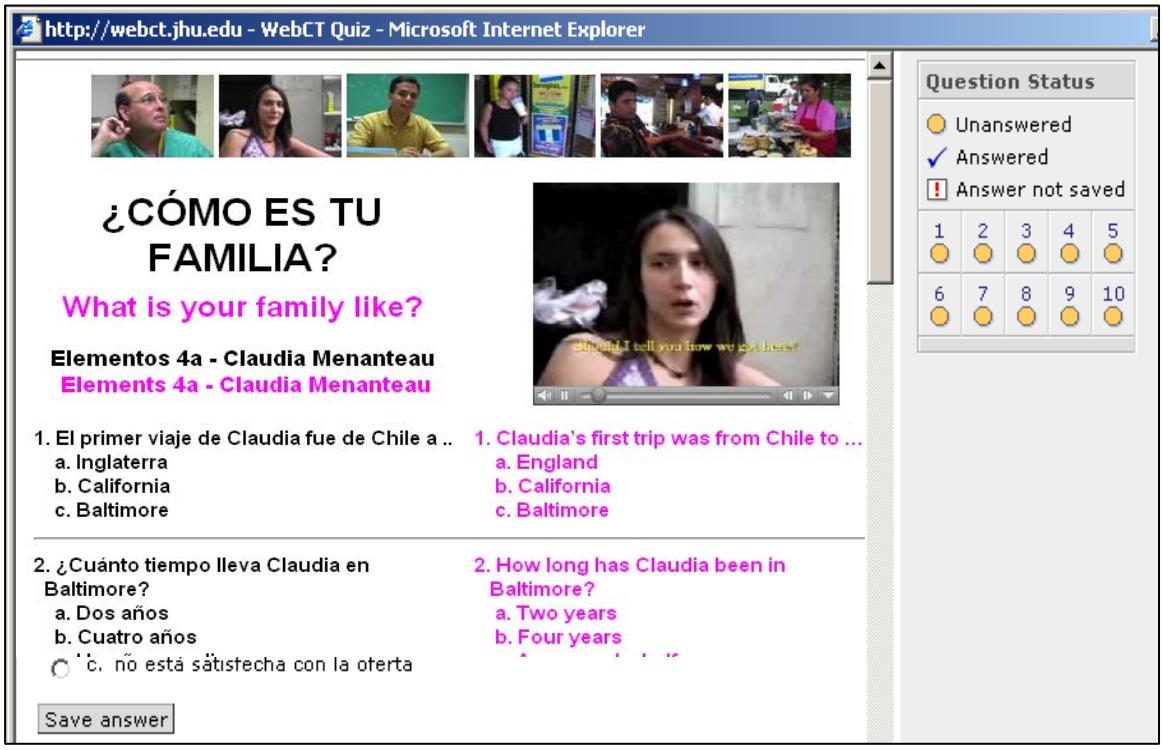
## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| ▪ Students have inadequate exposure to Spanish speakers living in the USA.<br><br>▪ Current course materials consist of scripted, artificial dialogues filmed in a studio or outside the United States with little relationship to students' reality.<br><br>▪ Little connection between the commercially-available instructional video series and the course content, which hinders students' critical analysis of the course content. | ▪ Interview local Spanish speaking populations in Baltimore (i.e., people of all walks of life, such as construction workers, neurosurgeons, high school students, PhD candidates, orchestra conductors).<br><br>▪ Design course curriculum and assessment around archived interviews of local Spanish speakers. | ▪ Videotape interviews with local Spanish speaking populations and stream videos on a public course website.<br><br>▪ Correlate videotaped interviews with textbook themes, allowing for intellectually stimulating discussions based upon critical issues addressed by local speakers.<br><br>▪ Develop series of questions as part of homework assignments to evaluate listening comprehension. | ▪ Students see the Spanish language class in a holistic way, not only as a place where they learn Spanish as a tool for communication, but also as a place where they become culturally aware of more than twenty Spanish speaking cultures living within the local community.<br><br>▪ Enhance listening and comprehension skills in Spanish-language classrooms.<br><br>▪ Provide increased opportunities for students to practice their listening comprehension skills.<br><br>▪ Spanish language, humanities, and social science faculty at Johns Hopkins and other institutions can access archived interviews through the public website. |

## Summary of Impact

The video interviews and revised curricula are being implemented in the courses listed above during the 2005-06 academic year; therefore, the project evaluation is currently in progress. During the semester, students will write three essays as part of the process to evaluate their writing skills. Throughout the semester, students will engage in continuing dialogue regarding the issues presented in the video clips and have an opportunity to:

- Reflect upon these topics during in-class discussions
- Improve listening skills by completing homework assignments to test their listening comprehension (see example below)




Fall 2005 survey results indicate:

- 88% of students agreed/strongly agreed that the videos exposed them to a wide variety of native Spanish-speakers, while 68% agreed/strongly agreed that their listening comprehension had improved.
- 15 of 24 students stated that in-class discussions based on the video series were the strongest aspect of the class.

A full report of the summary of impact will be written at the completion of the 2005-06 academic year.

## Future Plans and Leveraged Benefits of AVD Support

As a result of the rich issues raised during the interviews, Spanish faculty have received requests from professors in other disciplines who wish to use the video clips in their classes (e.g., Sociology, International Relations, Philosophy of the U.S. and Latin America). This video series documents interviewees discussing their perspectives on technology and progress, human rights, healthcare, arts and entertainment, economy and the work place, culinary arts, war, leisure time, freedom of speech, gender issues, immigration, identity, and Hispanic life in the USA.

The project team presented the video series at the 2005 American Council of the Teaching of Foreign Language Conference. Based on this exposure, several professors from other universities have adopted the video series at their institution (The Covenant School, University of Maryland Baltimore County, Goucher College, and Richard Bland College). As a result, the project team is collaborating with faculty at Johns Hopkins and beyond about using the video archive in the following ways.

- Comparing and contrasting how the Spanish-speaking population in Baltimore has changed over time.
- Mapping the changing geographical locations of Spanish speakers in Baltimore.
- Creating new interdisciplinary courses based on topics presented in the video interviews.
- Encouraging other universities to create locally-based digitization projects for in-classroom use and in consultation with Johns Hopkins.
- Creating a Hispanic Outreach Program called “Puertas Abiertas,” a program in which undergraduate and graduate students offer skills training to the Hispanic community.

## Europe and the Wider World: 1492-1776

**New Educational Technologies Developed**
**Curriculum Redesigned or Created**

**Department**: History
**Typical Enrollment**: Approximately 180 students
**Course Type**: Introductory History Course
**Number of Faculty**: 1 faculty member– 6 teaching assistants
**Cost**: $1,000

### Course Description

The History Department recently revamped its multi-semester introductory survey in the History of Occidental Civilization, according new emphasis to Europe's relations with the wider world. The *History of Occidental Civilization: Europe and the Wider World* examines principal developments in early modern European history with special attention to the expansion of Europe and European interaction with other cultures in Africa, Asia, and the Americas, north and south.

The goal is to explore Europe's vision of what might be termed the "Other," but also to illustrate the "Other's" view of the Europeans who came to their doorstep and transformed their institutions and way of life. This series of illustrated lectures focuses on the theme of the "Encounter." It is designed to introduce the complex and changing relationship between Europeans and the peoples they encountered in Africa, Asia, and the New World.


***Picture from El Primer Nueva Corónica y Buen Gobierno – Guaman Poma's critique of Spanish invasion of Peru.***

### Critical Thinking Skills Addressed

Students will be able to:

- decode pictorial messages; and
- discuss historical topics in multiple aspects, contexts, and viewpoints.

## Project Analysis and Solutions

| Pedagogical Challenges | Proposed Solutions | Technologies/ Pedagogical Strategies Selected | Benefits Realized |
|---|---|---|---|
| The JHU slide collection, while rich in materials pertaining to European art and architecture, is relatively weak on *non-European materials* (i.e., precisely the kind of visual materials needed to illustrate different – and often opposing – facets of Europe's "encounter" with the wider world). | Identify and digitally capture materials that exist in a variety of JHU library books, cartographic resources of other institutions such as the Library of Congress, and other online repositories. Subjects include:<br>▪ religious developments in Europe<br>▪ military technology<br>▪ scientific revolution<br>▪ voyages of exploration<br>▪ the Enlightenment | ▪ Scan visual materials for incorporation into a series of in-class PowerPoint presentations.<br>▪ Post visual materials on a special website linked to the course. | ▪ Organize materials into electronic teaching modules through ARTstor and make them available to other instructors who are assigned this course in the future.<br>▪ Incorporate copies of documents and other primary materials pertinent to the main themes of the course.<br>▪ Incorporate questions pertaining to visual culture in both papers and examinations. |

## Summary of Impact

The lesson plans, lectures, and images are ready for presentation during the first revised course offering in the Spring 2006 semester. A full report of the summary of impact will be written at the completion of this implementation.

# Exploring the Museum: History, Theory, Practice

**New Educational Technologies Developed**
**Curriculum Redesigned or Created**

**Department**: History of Art
**Typical Enrollment**: 50-60 students/year
**Course Type**: Introductory Survey
**Number of Faculty**: 2 faculty
**Cost**: $2,000

*Girl with a Pearl Earring – Johannes Vermeer*

## Course Description

This new course takes an interdisciplinary approach to the study of museums. Faculty from a range of departments and professionals from Baltimore and Washington, D.C. museums lecture on the power, relevance, and value of museums today. This is the first course in a new minor in museum studies program recently established at Johns Hopkins University. Two primary faculty members coordinate the lectures and lead student discussions. Students attend two lectures and one small group discussion section every week.

## Pedagogical Issue

Numerous guest lectures address topics that are relevant to future iterations of the "Exploring the Museum" course and upper level courses taught in the Museum Studies Program. Lecturers are practicing experts in the field and are limited in the number of presentations they can offer.

## Solution

AVD funds enabled the training of a student worker to video record all guest lectures using the CER's professional-grade video camera. The lectures are archived and constitute a resource base for future offerings.

## Summary of Impact

The course lectures are currently being recorded during the 2006 Spring semester. Therefore, the project evaluation will be conducted during the 2006-07 academic year when the recorded lectures will be shown to future classes.

## Tablet PCs in the Humanities

**New Educational Technologies Developed**

**Department**: Multiple Humanities Departments
**Number of Faculty**: 4 faculty
**Cost**: $8,000

### Pedagogical Issue

Tablet PCs offer the functionality of a traditional laptop computer with a key-added value: the ability to "write" on a touch sensitive screen. This functionality can replicate writing on the chalkboard or overhead, enabling instructors to save and share their notes with students after class. Tablet PCs can also be used to annotate presentation slides or to take notes during classroom observations.

*Tablet PC*

Through another CER grant program, two faculty teaching an introductory science course piloted the use of Tablet PCs for classroom presentation. Faculty identified several benefits. They could annotate and highlight text in their presentations; they created a record of everything discussed and written in class; and they did not have to switch between a digital projection and the chalkboard (which is frustrating in classrooms where the presentation screen is in front of the chalkboard). In several focus groups, students stated that when a professor uses the Tablet for annotation, the process captured their attention and underscored their comprehension of key points

The success of the initial pilot led to additional faculty interest in using Tablet PCs in the classroom. In 2005, the CER purchased an additional Tablet PC for use by faculty in other disciplines, but this did not meet the growing demand from instructors.

### Solution

The CER purchased four Tablet PCs dedicated exclusively to Humanities faculty to address three project goals.

- expose humanities instructors (faculty) to the potential of the Tablet PC;
- explore instructional support of Tablet PCs; and
- influence future purchasing decisions by departments and faculty members.

To ensure faculty interest before purchasing the equipment, the CER distributed a request for proposal through which faculty described how they would use the Table PC. In addition to guaranteeing that faculty would use the technology, the RFP also allowed the

CER to communicate the faculty's responsibilities for participating in the Tablet PC project. Faculty were expected to attend mandatory training, write a final evaluation of their experience using the Tablet, and allow CER staff to observe classroom uses of the Tablet PC to collect qualitative data.

Several faculty applied to use the Tablet PC in their courses that run in the Spring and Fall 2006 semesters. These include the following.

- A language instructor will use the Tablet to grade and annotate students' work and then return it to them electronically. Students will receive richer feedback than they traditionally received on course assignments.
- A History of Science and Technology faculty will use the tool to share annotations of the images he presents in his course on the automobile age and the urban dynamics that shaped the development of Las Vegas. The annotated slides made available to students will provide additional resources students can critically analyze as part of their course assignments.
- A language instructor will take notes during her students' oral exams. In the past, the professor took these notes on paper because using a keyboard was distracting to students. Therefore, the professor had to transcribe the notes after class before distributing the notes to students.

## Summary of Impact

The four Tablet PCs were purchased in Spring 2006 and will be used by Humanities faculty in the late Spring and Fall 2006 semester. Faculty are required to participate in a formal evaluation process and write an assessment of their experience using the Tablet PC as a requirement of participating in this project. A report on the use of the Tablet PCs by humanities faculty will be available upon completion of the project implementation.

## Appendix D – Conference Presentations on Grant-funded Projects

Miranda-Aldaco, C., Deleon, A., Galasso, R. (2005). *Spanish Through the Eyes: An Exploration of Hispanic Language Life and Culture in Baltimore*. American Council on the Teaching of Foreign Languages. Baltimore, MD.

Feist, T., Reese, M., & Brosnan, J.R. (2004). *Digitizing the Humanities*. Educause. Mid-Atlantic Conference. Baltimore, MD.

Leslie, Stuart W. (2003). *Why the Civilizing Mission is the Wrong Mission for the Humanities*. Invited Lecture. Rochester Institute of Technology. Rochester, NY.

Juedes, D., Woodward, A., Reese, M., & Hall, V. (2006). *Visual Resources, Educational Technologies, & Teaching: A Collaborative Faculty Support Model*. Art History Resource Librarian Society National Conference. Banff, Alberta.

Hall, Virginia M. (2005). *Beyond the Slide Show: New Tools for Teaching and Learning*. Visual Resources Association National Conference. Miami, FL.

Reese, Michael J. (2003). *Enhancing Critical Thinking Skills for Humanities Students: An Art History Model*. Educause Mid-Atlantic Conference. Baltimore, MD.

Reese, M., Juedes, D., & Brosnan, J.R. (2005). *Shared Mission, Sharing Resources: Librarians and Instructional Technologists Supporting Faculty Together*. Educause Mid-Atlantic Conference. Baltimore, MD.

Reese, Michael J. (2005). *The Timeline Creator*. New Media Consortium National Conference. Vancouver, British Columbia.

Reese, M., & Feist, T. (2005). *Ensuring Success: A Process for Transforming Teaching with Technology*. Academic Technology Conference. Goucher University. Baltimore, MD.

Schulman, J., & Reese, M. (2004). *ARTstor: Building a Community Digital Library.* Educause National Conference. Denver, CO.