The Working Group in Digital and New Media emerged as the result of funding awarded from the President’s call for collaborative and transdisciplinary white papers in his New Initiative funding program. The Working Group is dedicated to the support and development of digital and new media projects across the disciplines on campus. Beginning in the spring of 2009, the Working Group has created a laboratory space uniquely suited to collaborative digital and new projects developed across campus. To date these projects have brought together contributors from the departments of Art and Design, Music, History, English, and Computer Science, as well as the Chester Fritz Library and the ITSS High Performance Computing Cluster. Faculty and students have produced a dynamic and diverse group of projects ranging from video shorts, musical compositions, to online and gallery museum exhibitions and collections, and blogs. Statistically, the Working Group projects accounted for over 2500 person/hours of work, over 15 faculty and student collaborators, and close to 20 major creative and research projects. The Working Group created the intellectual and technological infrastructure necessary for over $35,000 of internal and external grants in its first year alone. In the hyper-competitive realm of non-STEM funding, the collaborative infrastructure Working Group in Digital and New Media gives faculty in the arts and humanities a significant edge. The transdisciplinary research, creative activities, and teaching of the Working Group’s members will continue to leverage the common space of the Working Group Laboratory to expand collaborative research and creative activities on campus.

The Working Group in Digital and New Media by the Numbers

Some numbers to support the role that the Working Group in Digital and New Media played in my research this past year:

- Approximate amount of grant money supported by Working Group members and infrastructure: $35,000
- Number of page views of web pages developed in collaboration with the Working Group: approx. 15,000
- Number of hours the Working Group lab was in use: 2607.5 (87 hours per week)
- Number of images processed and published: 750
- Number of blog posts either referring to the Working Group or produced in collaboration: 94
- Total number of years of fieldwork documented by on Working Group Omeka site, maps, and plans: 20
- Projects supported by the Working Group: 15
- Number of students working in the lab over the Fall and Spring Semesters: 17.
- Number of Digital History interns who worked in the Working Group Laboratory: 4
- Number of Gigabites of data made available for viewing on the web: approx. 3 GB
Overview of the Working Group’s Activities

The Working Group in Digital and New Media is the newest collaborative, transdisciplinary research group on campus. Funded by the President’s New Initiatives program, the Working Group supports collaborative research and creative activities in the fields of digital and new media. The work of the Working Group keeps the University in line with national trends. Over the last decade, digital and new media studies have expanded across the arts and humanities exerting a tremendous influence on such basic features of academic life as the constructing narratives, composing music, presenting and curating research, and the documenting of historical and archaeological analyses. New and digital media are particular suited for transdisciplinary collaboration as digital formats can accommodate audio (music, voice), visual media (graphics and video), text, data. Moreover, these formats are increasingly combined in fluid ways. The dynamic environment created by these formats, the requirements of sophisticated technical and theoretical abilities, and the increasingly interactive aspect of digital media have fostered and promoted collaborative work. In fact, much of the “Web 2.0” movement depends upon on this kind of co-produced, collaborative content that is inherent to digital and new media technologies.

The Faculty

The major collaborators in the Working Group at its inception reflect the dynamic and transdisciplinary nature of digital and new media studies. The group included Crystal Alberts and Kathleen Coudle-King (Department of English), Joel Jonientz (Department of Art and Design), Michael Wittgraf (Department of Music), William Caraher (Department of History), Tom Stokke (Department of Computer Science), and Wilbur Stolt (Chester Fritz Library). Technical support came from Aaron Bergstrom of ITSS. The Working Group benefited greatly from the contributions of these collaborators who brought their disciplinary competences to transdisciplinary teaching and research. At the same time, the Working Group both enhanced existing departmental programs and provided an opportunity for disciplinary knowledge to expand laterally into new areas. The UND Writers Conference, for example, is a project of the Department of English, but this year, its focus on digital and new media was able to enrich and leverage the activities taking place in the Working Group lab and the creative activities of the lab’s collaborators to bring together multiple departments, programs, and projects across campus.
The Lab

The lab space has provided infrastructure for a whole range of creative activities and research. After only one year, the lab has provided key infrastructural support for members of the Working Group as they applied for external grants in the ultra-competitive world of non-STEM related funding. Kathleen Coudle-King received major funding from a Bush Dakota Creative Connections grant to support her work with the Working Group. Caraher received both competitive external funding from the Institute for Aegean Prehistory and private donor contributions to support the processing of archaeological data in the lab-space. The Lab has also supported the grants supporting efforts of Department of English to digitize the audio and video records of the UND Writers Conference. The Working Groups activities have even attracted the attention of private donors who have provided funding to replicate and expand the Lab’s facilities elsewhere on campus. The activities of the lab have supported $35,000 in grants and donations in the past year alone.

Activities

The lab also provided space for visiting scholars to interact with students and faculty, and this served to enhance the national and international reputation of the University as a locus of sophisticated research and creative activities. For example, the lab played an important role in the visit of David Dempewolf, an internationally renown new media artist, and provided a space for students and faculty to work alongside the artist. The connection between the lab, Michael Wittgraf and the Writers Conference helped to facilitate the visit of the internationally-renown multimedia performance Shape Shifting: Shades of Transformation.

The work of visiting artists and composers and UND faculty influenced teaching and active student research through the Working Group. The Working Group in Digital and New Media Lab became a center for “active learning” as art, history, computer science, and music students worked to produce research collections, compose music, produce multimedia art, and analyze data. Art and Design students, in particular, became constant fixtures in the Working Group lab often arriving early in the day and working late into the night. The results of their work appeared in a gallery show at the Col. Eugene Meyers Gallery during the 2010 Writers Conference, which
shared a digital and new media theme. English 299 students collaborated on scripts in the lab, and the lab will play a key part in UNDMoviemaking camp in the summer of 2010. In both the fall and spring semesters, graduate student from the Department of History developed several significant catalogues of archaeological photographs and prepared a significant body of archaeological data for online publication as well as producing an media-rich online museum exhibit. They also used the facilities in the Working Group’s lab to create content both for a major archaeological database, to produce an interview for public consumption, and to great and maintain a blog detailing their work. Such work has enable our graduate students to become more familiar with some basic digital tools used in the discipline of history (digital recording devices, relational databases, blogging software, as well as Omeka), but also to promote the work of the Department of History, the Working Group in Digital and New Media, and our graduate students on a larger scale. These activities expanded the range of opportunities available to advanced students and exposed them to an environment prepared specifically to foster collaboration among the arts, humanities, and sciences.

### Technological Infrastructure

Of prime importance for the work of the Working Group in Digital and New Media was access to and support for both local and server based applications. Increasingly, external granting agencies expect universities to have basic technological infrastructure and support for digital and new media projects, and the Working Group lab seeks to fill that void for scholars across the humanities. Moreover, audio, video, and data files produced by research and creative activities in the humanities are rapidly approaching the size and complexity of data files produced in the hard and applied sciences. As a result, the Working Group formalized a technological partnership with Aaron Bergstrom, the specialist who operates the University’s High Performance Computing Cluster. Bergstrom provides a range of technological support to the Working Group under the terms of a service license agreement funded through the New Initiative “white paper” grant.
• Acquisition of XPAT, DLXS and oXygen XML Editor software to support digitization projects.

• Installation of Omeka and open-source web-publishing software designed for museums and archives.

• The Digital and New Media Space is running 6 Mac Pro computers with Five of the computers are in a single room with Apple’s Logic Pro, Adobe’s CS4 Master Suite and Native Instruments’ Reaktor installed on them.

• One of the stations is a dedicated audio workstation with 5.1 surround sound in a separate small room. It has Apple’s Logic Pro, Native Instruments’ Komplete, and Propellerhead’s Reason installed on it.

• The space has a large 5.1 surround system for its screening facility in O’Kelly 203. The system is capable of playing BluRay and DVD discs.

• Stereo Wall. We have agreed to install and support the Office of Research’s Stereo Wall, a 3d projection system.

### Ongoing Projects

**David Dempewolf Visit** (Joel Jonientz)
In February the working group in cooperation with the Department of Art & Design welcomed new media artist David Dempewolf to the University. During his visit he collaborate with students in the working space on an ongoing film project commissioned by the Museum of Warsaw. (I need a few more details here. I will speak with David and get some more info for us.)

**Gallery Show at the Col. Eugene Meyers Gallery** (Joel Jonientz)
Students from Art & Design, Music, and Computer Science collaborated on work which was exhibited at the Col. Eugene Myers Gallery at the Hughes Fine Art Center during the week of the writers conference in March of 2010.

**Music 354/454 Individual Lessons** (Michael Wittgraf)
We had two students enrolled in MUSC 354/454 Individual Lessons in Composition. They used the Working Group facilities as well as facilities in Hughes Fine Arts Center to produce audio only and audio/video work.
Experimental Film (Michael Wittgraf and Joel Jonientz)
Professor Michael Wittgraf (Chair of the Music Department) and Assistant Professor Joel Jonientz of the Department of Art & Design, collaborated on an experimental animated video for submission to film and music festivals. The film was developed in the Digital and New Media space.

Student Composer Videos (Michael Wittgraf)
The Music Department presented several videos as part of its spring semester Student Composers Concert. The videos were developed in the Digital and New Media space.

Performance of Shape Shifting: Shades of Transformation (Michael Wittgraf)
The Working Group in Digital and New Media enabled members of the Music and English Departments to collaborate on the UND Writers Conference, resulting in a Saturday evening performance of Shape Shifting: Shades of Transformation, an evening-length multimedia work involving video, poetry, performance art, musical performers, and interactive computer audio. The performers were Zeitgeist (a world-renowned contemporary music performing ensemble from St. Paul, MN), and Philippe Costaglioli (St. Cloud State University), who performed his own poetry. Audio is by Scott Miller (St. Cloud State University), and video is by Ron Gregg (Yale University).

Donations (Michael Wittgraf)
A donor made a donation of over $12,000 to the Music Department to harmonize the department’s Electronic Music Studio software and hardware with that of audio workstation in the Digital and New Media space. Items purchased include a Mac Pro, a mixer, Logic Pro, Komplete, Reason, a piano keyboard, Final Cut Studio, Adobe Creative Suite, and speakers.

UND Writers Conference Digitization Project (Wilbur Stolt and Crystal Albert)
UND Writers Conference Digitization Team including Chester Fritz Library staff and faculty from the Department of English developed a proposal to the National Endowment Humanities to fund digitization of UND Writers Conference video. Prof. Crystal Alberts (English), Wilbur Stolt (Library), Kwangsoo Han (Library) and Shelby Harken (Library) presented “UND Writers Conference Project” at the Upper Midwest CONTENTdm Users Group Meeting in Madison Wisconsin, October 30, 2009.
UND Digital Pottery Collection (Wilbur Stolt and Don Miller)
Chester Fritz Library worked with the Department of Art and Design to create UND Pottery Collection. Prof. Don Miller was lead faculty. This project is an example of a collaborative digital project resulting from expanded digital resources and support.

An Online Photograrphy Exhibit: Topos/Chora (William Caraher, Ryan Stander, and Aaron Bergstrom)

Topos/Chora was the product of a collaboration between Ryan Stander, a graduate student in the Department of Art, Dean Joseph Benoit of the Graduate School, the Department of History and the Pyla-Koutsopetria Archaeological Project. Ryan produced a series of photographs that documented the work of the Pyla-Koutsopetria Archaeological Project in Cyprus. Ryan’s photographs shown at the Empire Arts Center during the month of February and the graduate student interns produced a “permanent” online exhibit which combined a series of essays by scholars from across the US and a lengthy interview with the artist. Check it out here (but don’t use Internet Explorer): http://mediterraneanworld.und.edu/exhibits/show/toposchora

Pyla-Koutsopetria Archaeological Project Data Project (William Caraher)
Over the past two semesters graduate students have worked to normalize, document, and record data collected over the past 7 fieldseasons from the Pyla-Koutsopetria Archaeological Project in Cyprus. This project, which includes the work of graduate students here at UND and students and faculty from across the US and Europe, is explicitly transdisciplinary and collaborative. It brings together experts in history, archaeology, geology, and geography from around the world to document intensive a 1 square km stretch of the Cypriot coastline. The work of graduate students in the Working Group lab supported the work of a diverse group of scholars and provided the students with hands-on training in archaeological database management (in the field of so-called archaeoinformatics), research design, history, archaeology, and collaborative research. The collaborative work of these students and scholars has established the foundation for the full digital publication of the results and data of our fieldwork in Cyprus.

The Lakka Skoutara Archive Project (William Caraher and Aaron Bergstrom)
This project involved the preparing of over 600 archaeological photographs of the site of Lakka Skoutara in Greece for digital publication. Many of the photos had to be scanned from slides and digital photos had to be relabeled, identified, and annotated for online publication. A team of
faculties and graduate students uploaded the photos into Omeka and established standards for their annotation. The results of these efforts appear here: http://mediterraneanworld.und.edu/collections/show/4. While the archive remains under development, it already represents one of the largest collections of Greek vernacular architecture on the web and is a resource poised to attract international attention.

Supporting the Campus Blogosphere (William Caraher)
The Working Group lab has become the base for two collaborative weblogs which have sought to document the creative and collaborative spirit at heart of so much digital and new media work.

- The Muses' Web. The Muses' Web documented the work of the graduate student interns who worked to produce and process various data, photographs, and texts for various Working Group and Digital History projects. The blog makes clear that even such seemingly mundane activities as data processing can stimulate a wide range of creative responses from collaborators that show a deep engagement with intellectual problems. Here’s the link: http://webmuseweavers.wordpress.com/

- Teaching Thursday. This blog is a collaboration with Anne Kelsch of the Office of Instructional Development that seeks to highlight the creative, thoughtful, and reflective approaches to teaching here at the University of North Dakota. With a nation and global reach, the blog has received attention from bloggers as far away as India and South America and was linked to from an article in the New York Times. In a little over a year, the blog has almost 10,000 page views and over 60 contributions from across campus. Here’s the link: http://teachingthursday.org

Off the Map (Kathleen Coudle-King)
Kathleen Coudle-King was a recipient of the Bush Dakota Creative Connections grant in the summer of 2009. Her project, "Off the Map," will incorporate video and live theatre to explore factors that impact small town population in North Dakota, in particular loss or gain of industry, school consolidation, and loss of religious institutions. She has used the New Media lab to begin editing the approximately 6 hours of digital interviews and landscape footage she has acquired during the academic year. She will continue using the facility to edit her work during the summer and throughout the upcoming semesters.
English 299 (Kathleen Coudle-King)  
Students in Coudle-King's English 299: Writing the 30-minute TV Sitcom also used the facility in Fall, 2009 in order to collaborate on scripts.

UND Moviemaking Camp (Kathleen Coudle-King)  
Coudle-King is the Director of the UND Moviemaking Camps for Youth and Adults. This summer participants will utilize the New Media lab to edit short digital movies they write, produce, and shoot in the 2-week camps. At this point (two weeks from the start of the adult, and 4 weeks from the start of the youth camp) there are a total of 12 registrants. This number is expected to increase by at least six in coming weeks.

Future Projects

College of Art and Sciences Night of the Arts  
In the Fall of 2010 work created in the space during the past year will be previewed at the Empire Arts Center as part of the College of Art and Sciences Night of the Arts during the Universities Homecoming festivities.

Video Game Creating  
During the Fall semester of 2010 students from Art & Design, Music, and Computer Science will begin collaboration on the creation of a video game utilizing resources made available by the working group.

Digital Publication of Archaeological Data  
Plans are in place to develop a collaborative relationship with the Institute for the Study of the Ancient World at New York University to begin the publication of raw archaeological data from several concluded archaeological projects. We also plan to collaborate with a team from Ohio State University to begin preparing data from several completed archaeological projects for digital publication and analysis. Finally, we plan to expand the content offered on the Teaching Thursday weblog to include more regular publication of teaching related content and to include a regular series of podcasts, recording in the Working Group lab and published on the web.

Administrative Organization

Over the past year, the founding members of the working group established basic administrative and organization procedures for the group. These steps will allow the group to expand the number of projects that it supports while assuring adequate maintenance for the technological infrastructure. Establishing administrative procedures for the Working Group also will allow the
group to recruit likeminded scholars to the organization and foster a collaborative environment that is as dynamic as the media in which it works.

More importantly, perhaps the Working Group has recognized the importance of the continuity in leadership, creativity, and resources if the Working Group is to continue to support the infrastructure and collaborative environment. Along these lines, we have elected a chair to the current group, elected a secretary to keep minutes at meeting, and begun to process of producing formal bylaws for the Group’s and the Lab’s management.

At the same time, the Working Group will need to establish a more clearly defined position within the administrative infrastructure of the university and attempt to secure a consistent stream of local resources to sustain its continued growth and vitality. The grants awarded during the initial year of the Group’s existence suggest that any investment in the Group’s existence is likely to yield significant return to the university in financial and creative terms.

Conclusions and Futures

The Working Group in Digital and New Media represents an important contribution to the collaborative, digital environment on the University campus. Capitalizing on the collaborative capacity of digital media, the Working Group has already produced series of substantial research and creative outcomes. External grants and private donors have recognized the value of this work despite the increasingly competitive environment for such resources. Future projects will undoubtedly continued to tap new funding opportunities and produce new creative outcomes.
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