

OFFICE OF DIGITAL HUMANITIES

## Narrative Section of a Successful Application

The attached document contains the grant narrative and selected portions of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations. Prospective applicants should consult the Office of Digital Humanities program application guidelines at <a href="http://www.neh.gov/grants/odh/digital-humanities-start-grants">http://www.neh.gov/grants/odh/digital-humanities-start-grants</a> for instructions. Applicants are also strongly encouraged to consult with the NEH Office of Digital Humanities application guideline.

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

Project Title: A unified approach to preserving cultural software objects and their development histories

Institution: University of California, Santa Cruz

Project Directors: Noah Wardrip-Fruin

Grant Program: Digital Humanities Start-Up Grants, Level 1

# **NEH Application Cover Sheet Digital Humanities Start-up Grants**

#### **PROJECT DIRECTOR**

Dr. Noah Wardrip-Fruin Associate Professor, Computer Science 1156 High Street Santa Cruz, CA 95064-1077 UNITED STATES

E-mail: nwf@soe.ucsc.edu **Phone(W):** 831-459-4131 Phone(H): Fax:

#### Field of Expertise: Communications - Media

#### INSTITUTION

The Regents of the University of California, Santa Cruz Santa Cruz, CA UNITED STATES

#### **APPLICATION INFORMATION**

Title: A unified approach to preserving cultural software objects and their development histories

**Grant Period:** From 3/2013 to 8/2013

Field of Project: Communications - Media

**Description of Project:** Software is an increasingly important part of our culture, and the

humanities has responded with approaches such as digital culture studies, game studies, and software studies. Simultaneously, we face a growing erosion of computational history as the cycle of technological advancement and obsolescence continues. This project will pilot a new approach to software preservation - one that draws on the best practices so far identified by those seeking to preserve scientific research and its context (on one hand) and games and virtual worlds (on the other) while being consistently informed by our growing knowledge of the research questions most important to the digital humanities. A team of librarians, computer scientists, and humanists will pilot this methodology by archiving UCSC's groundbreaking social simulation game Prom Week — making progress towards a more unified approach to preserving software objects and their development histories for future scholars, students, and

#### BUDGET

**Outright Request** \$30,000.00 **Matching Request Total NEH** \$30,000.00

**Cost Sharing Total Budget** 

\$30,000.00

#### **GRANT ADMINISTRATOR**

Riley Jordan Grants Officer 1156 High Street Santa Cruz, CA 95064-1077 UNITED STATES

E-mail: riajorda@ucsc.edu **Phone(W):** 8314592639 Fax: 8314594046

#### A unified approach to preserving cultural software objects and their development histories NEH Digital Humanities Start-up Grant, Level 1

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#### A unified approach to preserving cultural software objects and their development histories NEH Digital Humanities Start-up Grant, Level 1

**Project Participants** 

Caldwell, Christy; Subject Librarian for Computer Science, Computer Engineering and Games, University of California Santa Cruz Science and Engineering Library

Kaltman, Eric; PhD Student, University of California Santa Cruz Computer Science

Lowood, Henry; Curator for History of Science and Technology Collections, Stanford University Libraries

Wardrip-Fruin, Noah; Associate Professor of Computer Science, Chair of Digital Arts and New Media, University of California Santa Cruz

#### Abstract

#### Abstract

Software is an increasingly important part of our culture, and the humanities has responded with approaches such as digital culture studies, game studies, and software studies. Simultaneously, we face a growing erosion of computational history as the cycle of technological advancement and obsolescence continues. This project will pilot a new approach to software preservation — one that draws on the best practices so far identified by those seeking to preserve scientific research and its context (on one hand) and games and virtual worlds (on the other) while being consistently informed by our growing knowledge of the research questions most important to the digital humanities. A team of librarians, computer scientists, and humanists will pilot this methodology by archiving UCSC's groundbreaking social simulation game Prom Week — making progress towards a more unified approach to preserving software objects and their development histories for future scholars, students, and the public.

#### **Statement of Innovation**

This project integrates three strands of knowledge to pilot a new approach to preserving cultural software. These are: the recommendations of the Joint Committee on Archives of Science and Technology (emphasizing preserving the innovation process), the Preserving Virtual Worlds project (best practices for this area), and humanities approaches to studying software. The object is also innovative: never before has a software research project been the focus for the development of archival strategy.

#### **Statement of Humanities Significance**

The humanities have an essential role to play in helping us understand an engage with our increasingly software-oriented culture, both in its present form and as it has evolved. But software and the traces of its creation are slipping through our fingers faster than any past media, from papyrus to film. New preservation strategies are essential, as is a focus on preserving the elements that speak most directly to humanities concerns.

#### NEH Digital Humanities Start-up Grant, Level 1 Proposal Narrative A unified approach to preserving cultural software objects and their development histories

**Enhancing the humanities through innovation.** We will design, and create a pilot implementation of, the first full archival methodology based on the needs of digital humanists, as exemplified by software and game studies. This methodology will integrate the approaches of the Joint Committee on Archives of Science and Technology with the recommendations (and ongoing work) of the Preserving Virtual Worlds project, as described below. This work is urgently needed, because there is very little archival work being done in software preservation that focuses on the needs of future academic inquiry — and all cultural software products will benefit from an approach that focuses not just on the objects but also their development history and context. In looking for an available software and game studies (our collective areas of humanities focus), we have chosen the UC Santa Cruz game Prom Week. The game's development has produced numerous research publications in the field of artificial intelligence and the game itself has received nominations for international game design awards. It represents a serious computational research object and an innovative step forward in interactive narrative games. We will use both these contexts to pilot a mix of archival strategies never before combined, which we believe holds significant future promise.

This work innovates simultaneously in the archival processes of *appraisal* and *retention*. Appraisal is the means through which archivists collect and analyze the future preservation value of an object or collection. Generally with the help of a domain specialist, the archival team aggregates all the work related to the object of preservation that is potentially significant and then winnows it down before retaining it (storing it safely and securely). Because software objects are relatively recent phenomena there is no generally agreed upon strategy for either appraisal or retention. We want to change this by using archival methodologies developed for scientific research to boot strap the creation of archival solutions for software and computer games, combining them with the best practices identified by the major investigation of preserving games and virtual worlds thus far.

In 1983 the Joint Committee on Archives of Science and Technology (J-CAST) released a report detailing the issues concerning appraisal of scientific research. They emphasized the necessity of preserving the process of scientific research as well as its results. Science is a messy business and the details of how scientific discoveries progressed through fits, starts, and flashes of insight are considered as important to future technology historians and students as the published results. The report recommended that when archiving scientific research every effort be made to gather all material related to the process of discovery — future researchers could then learn from the missteps and methods to supplement their understanding. We are asserting that this approach to the process of development is also applicable to cultural software, and games in particular, as they are potentially more opaque than most projects due to the inherent complexity of their computational systems, tendency to display this complexity only partially at the interface level, and highly iterative development processes. By revealing the development history and the inner workings of Prom Week's systems we hope to provide a clearer picture to those wishing to understand all software development and its historical significance.

In developing an appraisal strategy for Prom Week the team will consult with the project's original developers and collect early prototypes, source code, correspondence and other research detritus in line with J-CAST's recommendations. We will then sort, cull, and organize this information for long term archival storage. Along the way the J-CAST guidelines for process documentation will help us form a picture of the game that can be used by future historians, game developers and students to understand the inherent complexity of the game's artificial intelligence and narrative generation systems. This work will result in a more detailed methodology for future

game preservation and will also extend to software objects outside of the academic purview. Most computer games and software go through similar development processes, whether academic or commercial, and by focusing on process we feel the methodology will be just as helpful to the software community at large as it is to Prom Week. We hope to eventually make historical research on games and software as easy as taking books out of the library.

**Environmental scan.** The primary sources of guidance for the Prom Week methodology are the work of the Preserving Virtual Worlds (PVW) project team on computer game preservation and the J-CAST report on scientific research and development archiving. PVW is a continuing series of investigations into the practical archiving of computer games and virtual spaces. The first PVW project was a Library of Congress joint initiative to highlight the difficulties and necessity of preserving virtual spaces and computer games. The project produced a final report as an initial inquiry into the problems of long term game preservation. PVW II is currently in progress and is a case based analysis of games' significant archival properties.

**History and duration of the project.** The primary motivation for this project developed through team members' discussions with, and in some cases involvement with, the PVW projects. We see this plan for methodology development as an extension of the work recommended by PVW. Our hope with this project is to utilize the recommendations from previous endeavors to develop a viable strategy for long term game software preservation.

The game development experience of UCSC's game design program will be of paramount importance to the project's success. An immediate offshoot of this work will be to embed preservation strategies into the process of academic game development at UCSC. We will prototype ways for correct archival procedures to become a component of any future development work at the university. Prom Week's creation involved many individuals over three years of development and we plan to leverage the understanding of the remaining team members to inform our archival work.

After the initial term of the project we hope to apply for further grants from IMLS and the NEH to expand the archival methodology to a larger swath of games including those housed in Stanford's collections. We also intend to move toward archiving the hundreds of student games produced at UCSC every year and developing archival approaches that could be adopted by other centers of cultural software research and development.

**Work plan.** The project's goal is to use Prom Week as a case study for creating a process and tools to enable valid archiving methods for cultural software development projects, especially those from academic research and other innovation-focused contexts. The work will proceed in general phases. The first phase will be based on a survey of archival documentation regarding the game's development process, including Prom Week source code (in all versions) from the UCSC code repository, team correspondence over the three year development interval and all previous versions of the work, including any remaining physical prototypes. Publications and related work will also fall into scope and there may be further resources discovered during the collection phase. To our knowledge, no piece of cultural software has ever had a similarly extensive collection phase, and the final report will provide a model for adequate documentation to supplement the archival record with respect to the design and development workflow of Prom Week; a key component of this phase will be interviews with Prom Week team members about the development process, including milestone system and narrative construction decisions. The documentation phases will follow the recommendations of both J-CAST and PVW.

After the documentation phases are completed, the process of appraisal will begin. In this phase the project team will assess the archive and construct a model of the development process

along the lines proposed by J-CAST. We will create a conceptual model and tools for tracking organizational scheme and workflow; indeed, this is the project's principle innovation, as we currently have few guidelines to follow in this area. The findings here will be reflected in the implementation of tools for shaping a digital archive. For example, how can the long-term archiving of a source code repository be approached with an eye toward future accessibility and the kinds of research questions both digital humanists and computer scientists will put to it? How should descriptive information about versions of the source code and documentation pertaining to those versions be constructed and available for reference, noting the access needs of scholars with varying technical knowledge? We will experiment with different methods that explore a variety of approaches to these questions, finally converging on a coherent framework and pilot implementation of an archival system based on the development process. This framework will be set up as a foundation for a larger study and project. The final archive product will be organized as a template for future archival work and use of the software by scholars, as well as budding game design and computer science students. Finally, a white paper will communicate our findings to the archiving, digital humanities, and game development communities.

**Staff:** *Noah Wardrip-Fruin* is the co-director of UCSC's Expressive Intelligence Studio, a graduate game research lab, and a lead advisor on the development of Prom Week. He also co-edits the Software Studies series for MIT Press. As project lead he will advise the collection of Prom Week materials, frame potential software and game studies questions that archives such as this should support, and oversee overall project progress.

*Eric Kaltman* is a current member of the PVWII project team and worked as a project archivist for digital games at Stanford Library before coming to study at UCSC. He has work experience organizing game collections and as a software developer. A major portion of the grant is devoted to covering his time as a researcher on this start up, with a part time appointment for two academic quarters.

*Christy Caldwell* is the manager of the game and software collections at UCSC's Science and Engineering Library. She will be instrumental in providing a safe repository for the project's resulting artifacts and their integration into a library system.

*Henry Lowood* is the curator of the History of Science and Technology collections at Stanford University Library and perhaps one of the most well known proponents of game history at work in the field. He has many publications in computer game history, game film making and the history of technology. As a member of both PVW projects he has been instrumental in developing many of the recommendations this start up will attempt to implement.

**Final product and dissemination.** The methodological write up in the white paper will transfer to journal and conference presentations aimed at the digital archiving, digital humanities, and games communities. We will show that this type of work has a solid foundation and that we can serve the needs of industry, the academy, and the general public through a shared appreciation of computer game and software history. We will demonstrate to archival institutions that this work can be conducted in an efficient and competent manner by non-expert digital archivists. We hope to provide prototype open source tools for future archival use in the areas of source code maintenance and appraisal parameters for game designer and game production focused collections. We believe such tools will be useful for any software based preservation project and collection. We will also, of course, create a prototype of a new form of software archive, using Prom Week as our object of investigation. We believe this prototype archive will also be of use to the archiving community (as a basis for experimenting with different approaches) and future digital humanities researchers.

SC# Title	20130201	Budget # 1	I			Bi	udget Prepared Date Budget Revised Date	9/10/2012	
Project	A unified approac development histo	unified approach to preserving cultural software evelopment histories			e objects and their		Status	Pending	
Pl Name	Wardrip-Fruin. No	ah	Aa	encv	NEH		Preparer	Rilev Jordan	
Start Date	3/1/2013	-	C&G Of	ficer	Deirdre Beach			,	
End Date	8/31/2013								
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Eric Kaltm	an	GSR-Res	V		(b) (6)				(b) (6)
GSR Sum	mer	Months/Time	%	3.00	50%				
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Graduate Student Health Insurance:			rance:		\$1,013				\$1,013
Graduate Student Fees:			Fees:		\$4,869				\$4,869
Graduate Fee Override:			erride:						
		Total Graduate	- Fees:		\$5,882				\$5,882
	<u>Tot</u>	al Other Direct O	Costs:		\$5,882				\$5,882
Totals:		Direct Costs	Base:		\$21,749				\$21,749
		Direct Cost Ove	erride:						
		Total Direct 0	Costs:		\$21,749				\$21,749
		Indirect Cost	Base:		\$15,867				\$15,867
SC# 20130201 Page 1 Printed on 9/25/201   GRANT11231405 Attachments-ATT5-1238-budget.pdf Printed on 9/25/201							25/2012		

Indirect Cost Base Override:		
IC Rate:	0.5200	
Non-Std Indirect Costs:		
Total Indirect Costs:	\$8,251	\$8,251
TOTAL BUDGET:	\$30,000	\$30,000

*Christine Caldwell* is the Computer Science Librarian at University of California, Santa Cruz Library. She received her M.S. in Information Science from California State University, San Jose and has a B.S. in Biology from the California State University, Sacramento. Since 2008 she has managed the Library's video game collection that contains over 700 console, computer and mobile app video games. Her research interests include user-behavior in the digital environment, information searching strategies of researchers, and video game curation.

*Eric Kaltman* is a PhD student in the Expressive Intelligence Studio at the University of California, Santa Cruz. He has a B.A. in History and Chinese Studies from the University of Michigan, Ann Arbor and an M.A. in Chinese Studies from UC Berkeley. He has spent the past four years as a web developer and game designer before returning to graduate studies. His software experience has included distributed sensor networks, games for research into development autism and education, and language instruction. He is also presenting digital art work in the ZERO1 Digital Arts Biennial in collaboration with artists at Berkeley and MIT. In the archival vein, from 2008-2011 Eric worked as a project archivist for digital games at Stanford University Library overseeing the Cabrinety and the Meretzky (Infocom text adventure) software collections. He is currently a member of the Preserving Virtual Worlds II project along with team member Henry Lowood and a contributor to the How They Got Game Project at Stanford Humanities Lab.

*Henry Lowood* received his B.S. in History (minor: Physics) from the University of California, Riverside. He received Masters Degrees in Library and Information Science and History and a Ph.D. (History of Science & Technology) from the University of California, Berkeley. At Stanford, he has served as head of the Physics Library, Curator for Germanic Collections, and Head of the Humanities Resource Group. In addition, he has been Curator for History of Science & Technology Collections since 1983 and Curator for Film & Media Collections since 2005. He is a lecturer in the Science, Technology and Society Program and the Introduction to the Humanities program at Stanford, and adjunct faculty at San Jose State University, in the School for Library and Information Science. Since 2000, he has been director of the How They Got Game Project in the Stanford Humanities Laboratory (SHL) and in the Stanford University Libraries, a research, archival and digital preservation project focused on the history of computer games and simulations; between 2004 and 2008 he was co-director of the SHL, as well. Among the many initiatives undertaken by the How They Got Game Project, he is curator of The Machinima Archive and the Archiving Virtual Worlds collection hosted by the Internet Archive and leads Stanford's work on the Preserving Virtual Worlds (PVW) and PVW2 projects, funded by the U.S. Library of Congress and the Institute for Museum and Library Services, respectively. He has published widely in history of science and technology, library and archival studies, and digital game studies. A complete list c.v. is available on-line at: http://www.stanford.edu/~lowood/vita.htm

*Noah Wardrip-Fruin* is Associate Professor of Computer Science and Chair of the Digital Arts and New Media MFA program (DANM) at the University of California, Santa Cruz. He codirects the Expressive Intelligence Studio, one of the world's largest technical research groups focused on games. He is also a member of the UCSC Digital Humanities Initiative and directs the Playable Media group in the DANM program. He has authored or co-edited five books on games and digital media for the MIT Press, including a series on games and narrative — First Person (2004), Second Person (2007), and Third Person (2009) — as well as The New Media Reader (2003) which has been widely influential in digital media curricula. His most recent book, Expressive Processing (2009), focuses specifically on bringing humanities-style interpretation to the understanding and creation of media-focused computational processes. It has been called "inspiring" (Game Studies) and "a major step forward" (Will Wright). He co-edits the Software Studies series for the MIT Press and is a member of the board of the Electronic Literature Organization. His collaborative playable media fictions, including Screen and Prom Week, have been presented by the Guggenheim Museum, IndieCade, Whitney Museum of American Art, Independent Games Festival, New Museum of Contemporary Art, Krannert Art Museum, Hammer Museum, and a wide variety of festivals and conferences. Noah holds both an interdisciplinary PhD (2006) and an MFA (2003) from Brown University.

## Data Management Plan A unified approach to preserving cultural software objects and their development histories

#### 1. Roles and responsibilities

This data management plan will be implemented and managed by Eric Kaltman, under the project supervision of Noah Wardrip-Fruin. Christy Caldwell will assist with transferring data to the University of California Curation Center (UC3). UC3 will have long-term responsibility for the permanent storage needs of the data. All transferred data will be made publically accessible.

## 2. Expected data

We are developing an approach to preserving software objects. Therefore, our data is at two levels: the objects we are preserving, and the documentation of the preservation process.

The data from preservation objects will include:

- interview transcripts from Prom Week team members
- text files of correspondence, notes, academic papers and planning documentation from the development history of Prom Week
- text descriptions of objects such as physical prototypes created in the process of Prom Week's development
- software code from previous versions and final version of Prom Week

The documentation of the preservation process will be:

• text file of academic paper or report

The data will be gathered through the preservation process of appraisal.

During the project's lifetime, software code will be stored on the UCSC Code Repository that is backed up nightly. Other documentation (text files and transcripts) will be stored on Library servers with nightly back ups. Notes documenting the preservation process will be made using a cloud document, downloaded and backed up on a Library computer weekly.

## 3. Period of data retention

All relevant data will be deposited Merritt Repository Service from the University of California Curation Center (UC3) for long-term storage upon completion of the project study. Once data is transferred to Merritt, all data will be made publically available immediately. No data will need to be retained for other purposes.

#### 4. Data formats and dissemination

The metadata that will be used for this project is, indeed, a major crux of this preservation project itself.

Software code will need adequate metadata wrapping to ensure that either it can be migrated to another coding language, or there can be an emulation solution for future use. The metadata must be complete enough to include technical details, contextual story-lines, user behavior assumptions, and structural information. Metadata for interactive software objects such as video games is nascent. Using metadata

recommendations from the projects Preserving Virtual Worlds I and II, this project plans to employ OWL ontology with METS and OAI-ORE schema to sufficiently provide the detailed information required for wrapping this type of software code.

Other data formats will be text files from interview transcripts, planning documents and academic papers. These will use METS schema to sufficiently enhance discoverability.

With this metadata wrapping, the UC3 managed Merritt Repository Service will allow easy sharing and accessibility.

Interviews will be for historical purposes only and conducted to Oral History Association standards. No human subjects are used for research purposes for this project; therefore there are no IRB Protocol obligations.

#### 5. Data storage and preservation of access

All public data will be deposited in the Merritt Repository Service from the University of California Curation Center (UC3) that has capabilities to manage, archive and share digital content. Merritt allows access to the public via persistent URLs, provides tools for long-term data management, and permits permanent storage options. Merritt has built-in contingencies for disaster recovery including redundancy and recovery plans.

# THE STANFORD UNIVERSITY LIBRARIES

#### Stanford, California 94305-6004

CURATOR FOR HISTORY OF SCIENCE & TECHNOLOGY COLLECTIONS CURATOR FOR FILM & MEDIA COLLECTIONS

Professor Noah Wardrip-Fruin / Eric Kaltman Computer Science Department Baskin School of Engineering University of California, Santa Cruz Santa Cruz, California 95064

21 September 2012

Dear Noah, dear Eric:

I am writing this letter in support of your application to the NEH Digital Humanities Startup program, seeking grant funding for your project on developing an archival methodology for documenting the process of developing university-based games and software. The specific application to UCSC's Prom Week strikes me as an excellent case for study and development/evaluation of tools. I will be available to consult with you on the project.

I am writing as curator for history of science & technology collections, and film & media studies, at Stanford University. I am also adjunct faculty in the School of Library and Information Science at San José State University, where I am currently offering a course on Characteristics and Curation of New Digital Media. At Stanford, one of my lead activities for the past several years has been the Preserving Virtual Worlds project, undertaken with funding from the Library of Congress' National Digital Information Infrastructure Preservation Program and from the Institute for Museum and Library Services. Another has been the Silicon Valley Archives, through which I have worked with numerous software creators and computer scientists, both in industry and in academia.

In light of my multiple roles, I am excited about your project both from the point of view of preservation of complex cultural artifacts in digital form and with regard to the history of software development at universities, such as UC Santa Cruz and Stanford. In our multi-institutional work on Preserving Virtual Worlds, we explored a number of approaches to the extraction, packaging, documentation and long-term preservation of digital media; the methods you propose to explore in your project strike me as complementary to our goals and accomplishments thus far.

Sincerely yours,

Hey Lowood

Henry Lowood, Ph.D. Curator for History of Science & Technology Collections; Film & Media Studies Collections

**Tel.**: (650) 723-4602 **E-mail:** lowood@stanford.edu Fax: (650) 725-1068

#### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Graduate School of Library and Information Science

Library and Information Science Building 501 East Daniel Street Champaign, IL 61820-6211



September 23, 2012

Assoc. Professor Noah Wardrip-Fruin Baskin School of Engineering 1156 High Street Mail Stop SOE3 Santa Cruz, CA 95064

Dear Prof. Wardrip-Fruin:

I am writing with great enthusiasm in support of your NEH Digital Start Up proposal to investigate methodologies for the appraisal and archiving of academically-produced computer games. As the principal investigator for the Preserving Virtual Worlds projects, I believe your proposed research program is an important and vital continuation of the work on game preservation being done within the United States and by such projects as KEEP in Europe. Moreover, your project, by helping to define archival methodologies for academically-produced software more generally, is likely to be of significant value to non-game software in the digital humanities, as well as benefiting digital curation efforts in the social sciences and the physical sciences. I am more than happy to lend whatever assistance I can to your team's efforts.

All the best,

P. M. Donoy

Jerofne McDonough, Assoc. Professor Graduate School of Library & Information Science, University of Illinois

jpm

telephone (217) 333-3280 • fax (217) 244-3302 • e-mail gslis@illinois.edu • url http://www.lis.illinois.edu

#### UNIVERSITY OF CALIFORNIA, SANTA CRUZ

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THE UNIVERSITY LIBRARY

SANTA CRUZ, CALIFORNIA 95064

September 21, 2012

Noah Wardrip-Fruin University of California, Santa Cruz Baskin School of Engineering 1156 High Street Santa Cruz CA 95064

Dear Dr. Wardrip-Fruin:

The UC Santa Cruz (UCSC) University Library is proud to support and collaborate on the project titled A Unified Approach to Preserving Cultural Software Objects and their Development Histories. This project is being proposed to the NEH Digital Humanities Start-Up grant program.

The University Library is committed to assisting UCSC faculty with the curation and preservation of research data and objects through our local services as well as services offered by the University of California Curation Center (UC3) at the California Digital Library (CDL). For certain research works, such as research video games, viable strategies for long-term preservation do not exist and additional investigation through planning projects, such as this proposal, are crucial.

In support of the project, the University Library will provide the expertise of Christine Caldwell, Librarian and Video Game Collection Manager as a consultant. For over four years, Caldwell has guided the collection's growth and services in support of the research and learning needs of game design faculty and students. Her experience with the issues of preservation, access, and discoverability of information, along with extensive collaborative teamwork experience, will help move the project towards a successful outcome.

The fruits of your project work will provide a framework for the preservation of video games and other interactive media and software informing the work of archivists and data curation specialists worldwide. Building on the recommendations and guidelines proposed by previous projects including *J-CAST* and *Preserving Virtual Worlds*, this framework seeks to prevent the loss of novel research products, and map a process for capturing the development of an academic research game. The University Library is excited to be involved with this project, and invested in the outcome.

Sincerely,

Thus

Robin L. Chandler Associate University Librarian, Collections and Library Information Systems University of California, Santa Chuz 11231405 -- Attachments-ATT8-1241-letters.pdf