# NEH Application Cover Sheet Digital Humanities Start-up Grants

# **PROJECT DIRECTOR**

William Michael Short Assistant Professor of Classics One UTSA Circle San Antonio, TX 782490603 UNITED STATES E-mail: william.short@utsa.edu Phone(W): 12104585972 Phone(H): Fax:

# Field of Expertise: Languages: Classical Languages

# INSTITUTION

The University of Texas at San Antonio San Antonio, TX UNITED STATES

# **APPLICATION INFORMATION**

Title: A Frame-Based Latin Lexicon

# **Grant Period:** From 5/2014 to 10/2015

Field of Project: Languages: Classical Languages; Languages: Linguistics

## Description of Project: This project provides the technical specification for an interactive,

extensible on-line Latin dictionary whose articles can be sorted, arranged, and viewed dynamically according to userspecified semantic relationships. Whereas current on-line Latin dictionaries embody a conception of the lexicon developed within nineteenth-century historical semantics, the proposed frame-based lexicon draws on contemporary linguistic and lexicographic theory - as well as recent empirical findings - to tie together a range of semantic information into a cognitively realistic representation of Latin speakers' conceptual system and thus better to convey how Latin speakers actually understood words and their relations. Adhering to a managed crowd-sourced model, the dictionary is meant in this way to constitute a valuable research tool for any scholar withing to conduct innovative linguistic, literary and cultural analyses of how Latin expressions are interconnected within a uniquely Roman symbolic order.

# BUDGET

Outright Request\$54,161.00Matching Request\$54,161.00Total NEH\$54,161.00

Cost Sharing Total Budget

\$54,161.00

# **GRANT ADMINISTRATOR**

CAN SAYGIN Assistant Vice President of OSPA One UTSA Circle San Antonio, TX 782490603 UNITED STATES E-mail:Can.Saygin@utsa.edu Phone(W): 210-458-5194 Fax: 210-458-5196

# National Endowment for the Humanities Digital Humanities Start-Up Grants

# A FRAME-BASED LEXICON OF LATIN

Level II Grant Application

William Michael Short University of Texas at San Antonio Department of Philosophy and Classics

2013

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# 2. LIST OF PARTICIPANTS

Prof. William Michael Short (University of Texas at San Antonio) Prof. William Duffy (University of Texas at San Antonio) 1 student research assistant 1 temporary technical assistant

#### **3. ABSTRACT**

This project provides the technical specification for an interactive, extensible on-line Latin dictionary whose articles can be sorted, arranged and viewed dynamically according to user-specified semantic relationships. Whereas current on-line Latin dictionaries embody an understanding of meaning and of the lexicon developed in the nineteenth century, the proposed frame-based lexicon draws on contemporary linguistic and lexicographic theory – as well as recent empirical findings from classical studies, cognitive linguistics, and anthropology – to tie together a range of semantic information into a cognitively realistic representation of Latin speakers' conceptual system and thus better to convey how Latin speakers actually understood words and their relations. Adhering to a managed "crowdsourced" model, the dictionary is meant in this way to constitute a valuable research tool for any scholar wishing to conduct innovative linguistic, literary and cultural analyses of how Latin expressions are interconnected within a uniquely Roman symbolic order.

#### STATEMENT OF INNOVATION

On-line Latin lexicography remains committed to nineteenth-century historical semantics, which both adheres to a linear alphabetical ordering of words and, at the level of word sense, emphasizes etymological over contextual meaning and chronological development over usage patterns. By contrast, the proposed frame-based lexicon gives serious treatment to the relation of words within culturally defined frames, thus illuminating the structure of the conceptual system encapsulated by this language.

## STATEMENT OF HUMANITIES SIGNIFICANCE

With the addition of various domains and frames, the dictionary will represent a map of Latin speakers' signifying order, allowing scholars to discover new connections between concepts and to link patterns of linguistic usage to configurations of culture at large. More generally, it will engage the study of Latin semantics in a broader endeavor in the humanities that seeks to demonstrate how meaning (especially metaphorical meaning) varies from language to language and from culture to culture.

#### **4. NARRATIVE**

#### ENHANCING THE HUMANITIES THROUGH INNOVATION

This project, seeking to be funded as a Level II Grant, provides the technical specification for the development of a "proof-of-concept" interactive, extensible on-line Latin dictionary whose articles can be sorted, arranged and viewed dynamically according to user-specified semantic relationships. Whereas current on-line Latin dictionaries embody an understanding of meaning and of the lexicon developed within nineteenth-century historical semantics, the proposed frame-based lexicon draws on contemporary linguistic and lexicographic theory – as well as recent empirical findings from classical studies, cognitive linguistics, and anthropology – to tie together a range of semantic information into a cognitively realistic representation of Latin speakers' conceptual system and thus better to convey how Latin speakers actually understood words and their relations. Although the project will initially focus on a limited semantic field in Latin (agricultural terms), and on a fixed set of meaning relations (frame data and metaphors), as more and more domains are added and richer semantic information is provided, the dictionary is meant to constitute a valuable interdisciplinary research tool for scholars wishing to conduct innovative linguistic, literary and cultural analyses of how Latin expressions, and the contexts they appear in, are interconnected within a uniquely Roman symbolic order.

#### ENVIRONMENTAL SCAN

Recent advances in our understanding of how human beings conceptualize their experience of the world have yielded important insights for lexicography. For example, prototype theory suggests ways to reconcile the radial structure of words' senses – that is, that many words are understood in terms of a "best example" – with the linear ordering necessitated by the printed dictionary. Relevance theory instead stresses the need to integrate pragmatic information – that is, information relating to context, and speakers' knowledge of context – into semantic description. Fillmorean frame semantics and Lakoffian metaphor theory, meanwhile, would organize word meanings within larger conceptual configurations or all-pervasive metaphors. Moreover, lexicographers have now begun to integrate these theoretical insights into practical (mostly English) dictionary construction. The FrameNet Project undertaken by the International Computer Science Institute in Berkeley, California, for instance, implements Fillmore's notion that linguistic understanding is describable in terms of structured information packets that represent the "background knowledge" constituting the meanings of words – i.e., that words evoke coherent bodies of knowledge that specify elements such as participants and events, and their relations – as a human- and machine-readable database of annotated word senses grouped by cultural frame. Deignan's *Collins Cobuild* metaphor dictionary clusters words according to supralexical patterns of metaphorical meaning.

On-line digital lexicons, based exclusively on their printed counterparts remain firmly committed, however, to a historical semantics developed in the nineteenth century, which, at the global level of lexical arrangement, adheres to a strictly linear alphabetical ordering, and, at the level of lexical sense organization, emphasizes etymological over contextual meaning and chronological development over usage patterns. Wharton (2011) has pinpointed several shortcomings of this tradition: that it fails to incorporate frequency data; gives peripheral, context-dependent senses the same status as central and basic senses; relies on the semantics of English to determine sense divisions in Latin; and so forth. Perhaps most problematically, this semantics does not include a well-developed theory of figurativeness, so that even the most theoretically informed endeavors in classical lexicography (e.g., the University of Heidelberg's on-line *Thesaurus Linguae Latinae*) tend not to provide clear information about the relations between senses, beyond invoking simplistic or ad hoc principles of "tropic" or "transferred" meaning change. This, in combination with the linear alphabetical arrangement of the traditional dictionary, obscures this kind of large-scale figurative patternings that work their effects across, and at different levels of, Latin's symbolic system. Thus, while doing a good job of documenting the range of historically attested senses and of cataloguing subtle variations

in meaning, these dictionaries leave something to be desired in representing the kinds of linguistic, conceptual, and encyclopedic knowledge that Latin speakers relied upon in actually understanding words.

#### HISTORY AND DURATION OF THE PROJECT

Whereas Latin dictionaries currently available on-line (Oxford Latin Dictionary, "Lewis & Short", Brill's Etymological Latin Dictionary) simply mimic the organization of their printed counterparts - easily searchable, but viewable only in the predefined, linear format of the originals - our frame-based Latin lexicon was conceived as a "proof of concept" that will be unique in taking full advantage of the combinatorial possibilities offered by a relational database based on a richly interconnected tagging structure. This eighteen-month project will be limited initially to seeding the lexicon with data related to the semantic field of agricultural terms, which presents two advantages. First, the Latin corpus contains a large number of texts related to agriculture in a variety of different genres, including, but not limited to: Cato's De agri cultura (didactic), Varro's De re rustica (didactic), Vergil's Georgics and Eclogues (pastoral poetry), and Columella's De agri cultura (didactic poetry). Second, Roman agriculture has been rather well studied from a number of different perspectives: for example, M. G. Bruno's Lessico agricolo attempts to provide accurate semantic characterizations of the whole of Latin's agricultural vocabulary from the archaic period to reflexes in the Romance languages; J. Adam's Latin Sexual Vocabulary, on the other hand, examines metaphorical uses of agricultural terms in reference to sexual activity and the human sexual organs; K. D. White's Agricultural Implements of the Roman World and Farm Equipment of the Roman World collects literary and archaeological evidence towards the description of the objects and practices of Roman agriculture; L. Kronenberg's Allegories of Farming from Greece and Rome examines how farming provides an allegory for philosophical pursuit; M. Perfigli's Indigitamenta examines the gods and goddesses worshipped in Roman culture in relation to agricultural activity; and M. Bettini's "Missing Cosmogonies" explores one of Rome's most important religious rituals, in which a city founder traces out the boundary of a new city by plowing a circular furrow. Using these resources, a variety of semantic as well as "encyclopedic" information can be brought together in the characterization of the wider (linguistic and literary but also social and religious) "meanings" of Latin's agricultural vocabulary, showing how word meaning and semantic change emerges out of the interconnectedness of Roman society's conceptual system. With the addition of further domains and frames on an ad-hoc basis following the period of the Start-Up Grant, the dictionary will come to represent a veritable map of Roman culture's "signifying order" - allowing scholars of the ancient world to discover new and interesting connections between concepts, and to link patterns of linguistic usage to configurations of culture at large - Roman society's institutions, beliefs, values, theories, practices and so forth, including its material artifacts.

While the data collection phase of this project will thus involve a semantic field (agricultural terms) that has not previously been studied in the specific semantic and lexicographic perspective we have adopted, the methodology for identifying both frame structures and metaphorical relations within this semantic field will largely derive from previous research conducted by the project's director, Dr. William Short. In particular, in "'Transmission' Accomplished?" (*American Journal of Philology*, Jun. 2013) has Dr. Short has studied how certain elements of Latin speakers' conceptual system are delivered in terms of metaphorically defined frames, which function as covert categories that structure not only everyday language but also expert theorizing. "Latin *De:* A View From Cognitive Semantics" (*Classical Antiquity*, Oct. 2013), meanwhile, points the way to reimagining lexical organization according to pervasive metaphorical patterns detectable in the semantic interconnections between lexical items (even at the level of individual senses). At the same time, Dr. Short and Dr. Duffy have worked collaboratively on a similar project, which demonstrated that the ancient Greek understanding of the "heroic tradition" was defined largely in virtue of metaphors drawing on images of physical uprightness, ordered sequences, linkage, and building construction ("Metaphor and the Authority of the Greek Oral Tradition", forthcoming in *Linguae & Litterae*). Although again not strictly related to the semantic field this project will consider, this paper articulated a method

for identifying metaphorical concepts from linguistic data that will be crucial for developing the database markup specification on which our lexicon is based.

This project has received no previous financial support. Development and initial deployment of the "proof of concept" dictionary under the auspices of the National Endowment for the Humanities will provide, however, a solid foundation for seeking additional funding for subsequent stages of the project following the intial grant period. Specifically, we intend to pursue an NEH Digital Humanities Implementation Grant, to fund a second eighteen-month period of research in which a two further semantic fields (emotion terms and color terms) will be integrated into the lexicon. At this time, we plan to bring a third collaborator, Dr. David Wharton of the University of North Carolina, Greensboro, onto the project staff. Dr. Wharton's publications in this area, especially "Linguistic Semantics and the Representation of Word Meaning in Latin Dictionaries" (in Formal Linguistics and the Teaching of Latin, 2011) and Latin Color in Context (in preparation) lend themselves to the aims of our project both in terms of their content and their methodology (the former dealing with questions of lexical representation in respect of the Latin word horror; the latter with the embodied basis of Latin's color terminology). Our ultimate aim will be to secure ongoing support for the project from the Andrew W. Mellon Foundation or Packard Humanities Institute, as part of the "Perseids Platform" being developed under the direction of Dr. Marie-Claire Beaulieu (Tufts University). The Perseids Platform is a digital text platform designed for collaborative editing, learning and publication, integrating open source software and standards from the Perseus Digital Library Project, The Homer Multitext Project, the Alpheios Project, the Scaife Digital Library, the Open Annotation Collaboration, and the Open Philology Project (University of Leipzig). In this way, our frame-based lexicon will be aligned to, and gain interoperability with, other major digital research tools now serving the field of Classical Studies.

#### WORK PLAN

The work of the project can be divided into a number of successive steps, culminating in the deployment of the "proof-of-concept" dictionary. The work required for each step will be shared among the project staff as well as "crowdsourced", exclusive of highly technical programming tasks. In the first phase of the project (4 months, May through August 2014), Dr. Short will begin by developing documentation of the eXtensible Markup Language specifications (XML) to be used for creating "entries" for each of the data types listed above ("attribute" and "value" pairs) - and others if necessary - and producing standard guidelines for tagging text. Using this basic database design, mock-ups will also be created for the on-line interface. A second step will consist of collecting primary and secondary sources, which will serve to delimit the semantic field and as the basic material for markup. The next phase (6 months, September 2014 through February 2015) will consist of database entry creation and markup, beginning from the smallest constituent elements (lexical units and phrasal lexical items, including idiomatic expressions: grammatical and syntactical relations) and moving towards the largest elements (frames and domains). This work, undertaken by both Dr. Short and Dr. Duffy along with an undergraduate research assistant providing data entry services, will not always proceed necessarily linearly - for instance, defining metonymic and metaphorical relations between concepts will require the definition of the frames and domains of which those concepts are part, and at the same time will provide feedback for the definition of lower-level word senses. During this phase, Dr. Short will be charged with reviewing any and all entries added to the database. The final phase (8 months, March through October 2015), under the supervision of Dr. Duffy, will involve the development of the web-based interface permitting users to access the database and to visualize, in a dynamic fashion, representations of linked database entries according to user-specified configurations. Later iterations of the project will integrate further types of semantic information, the accuracy and completeness of such information to be evaluated according to a managed "crowd-sourcing" model. As new semantic fields are added to the lexicon, field-specific editors (i.e., agricultural terms: Dr. Short; color terms: Dr. Wharton; mythological terms: Dr. Duffy) will be invited by the project's director to oversee the quality and consistency of data collection.

Dr. William Short will devote significant time to the creation and documentation of the technical specification, roughly equivalent to time release for two courses over the grant period (May 2014 through October 2015). Dr. Short will also be responsible during this time for empirical research towards the creation of the lexical database. Dr. William Duffy will contribute the equivalent of time release for roughly two courses over the duration of the project, focusing his efforts on database entry creation and markup, and, in the later stages of the project, on creation of the web portal that will provide the interface to the database backend. Dr. Duffy will undertake this work with the help of a third staff member with requisite programming and web-design skills, to be hired during the final phase of the project (March through October 2015). An undergraduate research assistant, hired on a part time basis during the second two phases of the project, will undertake database entry and markup based on Dr. Short's research.

#### FINAL PRODUCT AND DISSEMINATION

The lexicon will be implemented as a web-based portal, coded in HTML5 and JavaScript, presenting the user with a description and history of the project, and a search interface. The search interface will admit single-word expressions, to produce results consisting of a list of nearest-match database entries, which can then be viewed and arranged according to certain specific semantic configurations – intially, frame-based and metaphorical, later chronological, etymological, generic, prototypical, selectional, collocational relations – on the basis of the annotational markup (tag) structure of the underlying database. The search backend will consist of a relational SQL database, containing a number of different annotated data types, each entry specifying different sorts of semantic relationships or specifying particular semantic content. Our tagging specification will follow Ruppenhofer et al. 2010, "FrameNet II: Extended Theory and Practice", extended to include metaphorical and metonymical (and eventually etymological, collocational, and selectional) data. Search results will also be interoperable with more traditional on-line lexical tools, entries being linked to material available through the open-source Perseus Project housed at Tufts University.

In this way, the "product" represented by the lexicon will benefit a number of important constituencies. First, it will enable scholars to undertake creative analyses. Consider, for example, Latin speakers' understanding of "communication". Latin does not possess a single word capturing this concept; instead, it is captured by a series of metaphors drawing on related alimentary images – "cooking up", "serving", "eating", and "digesting" – which provide Latin speakers' ways of talking about the verbal exchange of ideas (as well as theories of the text and of memory). And yet no currently available Latin dictionary indicates the relation of these words within this metaphorically defined frame, obfuscating the nature of the conceptual system encapsulated by this language. Our lexicon, on the other hand, is designed specifically to highlight such semantic interconnectivity. Second, scholarship will be advanced by the very process of developing and growing the lexicon, potentially inspiring reflection on what it means to conduct humanistic research in the digital age. Particularly in adopting a "crowdsourced" data collection model, this project is meant to encourage innovative collaborative scholarly production and to breakdown disciplinary barriers (see P. Sharma, "Crowdsourcing in Higher Education IT", *Educause* Sept. 2011).

Upon completing the proof of concept, Dr. Short and Dr. Duffy will co-author a white paper documenting the history of the project and contextualizing it within the field's other digital humanities endeavours. The success of workshops and institutes devoted to "digital philology" (e.g., the NEH Institute for Advanced Topics in the Digital Humanities, directed by Monica Berti and Gregory Crane, or the University of Leipzig's courses on "Current Topics in Digital Philology") attests to our field's interest in the development of sophisticated electronic research tools. However, the emphasis has been on computational and corpus linguistics as means of literary analysis, leaving the lexicon comparatively undertheorized. Yet if cognitive and anthropological linguistics have taught us anything, it is that a language's words and idiomatic expressions – especially when these are organized into metaphorical systems – are probably most revealing of the culture of those who speak it.



# **Budget Form**

OMB No 3136-0134 Expires 7/31/2015

Applicant Institution: *The University of Texas at San Antonio* Project Director: *William Short* 

Project Grant Period: 05/01/14 through 10/31/15 click for Budget Instructions Computational Details/Notes **Project Total** Year 1 Year 2 (notes) Year 3 (notes) (notes) 05/01/2014-05/01/2015-01/01/20 -04/30/2015 10/31/2015 12/31/20\_ 1. Salaries & Wages Project Director (William Academic Year Salary: 30%-\$5,747 % \$5,747 Short) \$57,473 Summer Project Director (William Academic Year Salary: \$5,747 % \$5,747 Short) \$57,473 10%-AY % Academic Year Salary: 15%-7.5%-Collaborator (William Duffy) \$41,173 Y1, \$42,408 Y2 \$2,059 Summer \$3,119 Summer \$1,060 % Academic Year Salary: 7.5%-AY, 3 Collaborator (William Duffy) \$41,173 Y1, \$42,408 Y2 \$1,060 % \$5,177 10%-AY \$4,117 months 32 weeks, 24 weeks. Undergraduate Research Hourly rate-\$7.25 Y1; 10 hours 10 hours \$2,320 per week \$1,793 % \$4,113 Assistant \$7.47 Y2 per week \$0 % 2. Fringe Benefits **Project Director** \$3,434 \$3,434 30% \$2,136 \$722 \$2,858 Collaborator 34% Undergraduate Research Asst. 8% \$186 \$143 \$329 3. Consultant Fees Web Designer/SQL Programmer \$90/day \$5,400 \$5,400 60 days

4. Travel								
	Washington, DC Project							
	director meeting (\$400							
	airfare; Hotel \$183 x2							
Project Director	nights; per diem \$77 x2		\$920					\$920
								\$0
5. Supplies & Materials								
								\$0
6. Services								
								\$0
7. Other Costs								
7. Other Costs								\$0
								ŞU
8. Total Direct Costs	Per Year		\$26,666		\$10,178		\$0	\$36,844
			<i>\</i>		<i> </i>		÷	<i><i><i>ttttttttttttt</i></i></i>
9. Total Indirect Costs								
a. rate: 47% of modified total direct costs b.								
Federal Agency: DHHS c. Date of agreement: 8/19/11	Per Year		\$12,533		\$4,784		\$0	\$17,317
			J12,333		Ş4,704		γC	\$17,517
10. Total Project Costs	(Direct and Indirect costs for entire project)				\$54,161			
11. Project Funding		a. Requ	ested from N	H			Outright:	\$54,161
	Federal Matching Funds:				\$0			
		TOTAL REQUESTED FROM NEH:					\$54,161	
		b. Cost Sharing Applicant's Contributions:					\$0	

GRANT11479685 -- Attachments-ATT5-budget1010769841.pdf

		Third-Party Contributions:	\$0
		Project Income:	\$0
		Other Federal Agencies:	\$0
		TOTAL COST SHARING:	\$0
12. Total Project Funding			\$54,161
Total Project Costs must be equal to Total Project Funding>	(	\$54,161 = \$54,161 ?)	

**Third-Party Contributions must be** 

GRANT11479685 -- Attachments-ATT5-budget1010769841.pdf



## DEPARTMENT OF HEALTH & HUMAN SERVICES

Program Support Center Financial Management Service Division of Cost Allocation

August 19, 2011

Room 732 1301 Young Street Dallas, TX 75202 PHONE: (214) 767-3261 FAX: (214) 767-3264

Kerry L. Kennedy Vice President for Business Affairs University of Texas at San Antonio One UTSA Circle San Antonio, Texas 78249

Dear Mr. Kennedy:

A copy of a facilities and administrative (F&A) cost Rate Agreement is being faxed to you for signature. This Agreement reflects an understanding reached between your organization and a member of my staff concerning the rate(s) that may be used to support your claim for facilities and administrative costs on grants and contracts with the Federal Government.

Please have the original signed by an authorized representative of your organization and fax it to me, retaining a copy for your files. Our fax number is (214) 767-3264. We will reproduce and distribute the Agreement to the appropriate awarding organizations of the Federal Government for their use.

The Office of Management and Budget (OMB) has requested that we reach an agreement with each institution on components for the published F&A cost rates. The attached form(s) are provided for that purpose. Please sign the form(s) and return them with the agreement.

An F&A cost proposal, together with supporting information, are required to substantiate your claim for F&A costs under grants and contracts awarded by the Federal Government. Thus, your next proposal based on actual costs for the fiscal year ending 8/31/2014 is due in our office by 02/28/2015.

Sincerely,

Director Division of Cost Allocation Central States Field Office

Enclosures

PLEASE SIGN AND FAX A COPY OF THE RATE AGREEMENT

#### COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN: 1741717115A1

ORGANIZATION: University of Texas at San Antonio One UTSA Circle San Antonio, TX 78249-0607

#### DATE:08/19/2011

FILING REF.: The preceding agreement was dated 02/28/2008

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I	: INDIRECT C	OST RATES		
RATE TYPES:	FIXED	FINAL PR	OV. (PROVISIONAL) PRED.	(PREDETERMINED)
	EFFECTIVE P	ERIOD		
TYPE	FROM	<u>T0</u>	RATE (%) LOCATION	APPLICABLE TO
PRED.	09/01/2011	08/31/2015	47.00 On Campus	Organized Research
PRED.	09/01/2011	08/31/2015	47.00 On Campus	Instruction
PRED.	09/01/2011	08/31/2015	35.00 On Campus	Other Sponsored Activities
PRED.	09/01/2011	08/31/2 <b>0</b> 15	26.00 Off Campus	All Programs
PROV.	09/01/2015	Until Amended	Use same rates and conditions as those cited for fical year ending 08/31/2015.	

## \*BASE

Modified total direct costs, consisting of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract (regardless of the period covered by the subgrant or subcontract). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of \$25,000.

U40251

ORGANIZATION: University of Texas at San Antonio AGREEMENT DATE: 08/19/2011

#### SECTION II: SPECIAL REMARKS

#### TREATMENT OF FRINGE BENEFITS:

The fringe benefits are specifically identified to each employee and are charged individually as direct costs. The directly claimed fringe benefits are listed below.

#### TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.

OFF-CAMPUS DEFINITION: For all activities performed in facilities not owned by the institution and to which rent is directly allocated to the project(s), the off-campus rate will apply. Actual costs will be apportioned between oncampus and off-campus components. Each portion will bear the appropriate rate.

EQUIPMENT DEFINITION -Equipment means an article of nonexpendable, tangible personal property having a useful life of more than one year and acquisition cost of \$5,000 or more per unit.

FRINGE BENEFITS: FICA Retirement/Pension Worker's Compensation Life Insurance Unemployment Insurance Health Insurance Accrued Leave at Termination

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# ORGANIZATION: University of Texas at San Antonio

AGREEMENT DATE: 08/19/2011

#### SECTION III: GENERAL

#### A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted: such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Pederal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

#### B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

#### C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

#### D. USE BY OTHER PEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Office of Managament and Budget Circular A-21 Circular, and should be applied to grants, contracts and other agreements covered by this Circular, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

#### E. OTHER.

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

#### BY THE INSTITUTION:

University of Texas at San Antonio

(INSTITUTION ISTON Kerry Ŀ. Kennedy

(NAME)

Vice President for Business Affairs

(TITLE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)	
(SIGNATURE)	

Arif Karim

(NAME)

Director, Central States Field Office

8/19/2011

(DATE) 0251

HHS REPRESENTATIVE:

Denise Shirlee

Telephone:

(214) 767-3261

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#### COMPONENTS OF THE PUBLISHED FACILITIES & ADMINISTRATIVE COST RATE

#### INSTITUTION: UNIVERSITY OF TEXAS AT SAN ANTONIO

FY COVERED BY RATE: FY 09/01/11 - 08/31/15

RATE TYPE;	ORGANIZED RESEARCH		 INSTR	UCTION	OTHER SPON ACT		
	On-Camp	Off-Camp	On-Camp	Off-Camp	On-Camp	Off-Camp	
RATE COMPONENTS:	FY 09/01/11 - 08/31/15	FY.09/01/11 - 08/31/15	FY 09/01/11 - 08/31/15				
Building Depreciation	6.0		6.0		3.0		
Equipment Depreciation	3.2		1.2		0.2		
Interest	2.6		1.7		0.4		
Operations & Maintenance	8.2		11.1		4.8		
Library	1.0		1.0		0.6		
Utility Cost Allowance	0.0		0.0		0.0		
Administrative Component	26.0	26.0	26.0	26.0	26.0	26.0	
F&A Rate	47.0	26.0	 47.0	26.0	 35.0	26.0	

CONCURRENCE:

UNIVERSITY OF TEXAS AT SAN ANTONIO (Institution) at u Kerry L. Kennedy (Name)

Vice President for Business Affairs (TMB)

(Date) 8/25/11

## **6. BIOGRAPHIES**

#### WILLIAM MICHAEL SHORT, PHD.

William Michael Short is currently assistant professor of classics at the University of Texas at San Antonio. He completed his doctoral dissertation "Sermo, Sanguis, Semen: An Anthropology of Language in Roman Culture" in 2007 at the University of California, Berkeley. More recently, he has published or placed articles in the field's top peer-reviewed journals, on subjects ranging from the Roman conception of mind (Arethusa) and the symbolic relationship between Mercury and sermo (Classical Journal) to the meaning(s) of the Latin preposition de (Classical Antiquity) and metaphors of communication (American Journal of Philology). With Maurizio Bettini, he is editor of a forthcoming collection of anthropologically-oriented studies entitled New Directions in the Anthropology of the Ancient World. A second edited volume, Embodiment in Latin Semantics (under contract with John Benjamins), introduces to the study of Latin a view developed in the cognitive sciences that meaning is dependent on the specific character of the human body and brain.

#### WILLIAM DUFFY, PHD.

As a senior lecturer in the Department of Philosophy and Classics at the University of Texas at San Antonio, Dr. Duffy's primary research interest is in the reception of mythical figures and tales by ancient audiences. This interest led to his 2011 dissertation, "Legacies of an Imaginary People: the Phaeacians after Homer", which investigates the way that Alcinous and his followers are used throughout antiquity, focusing on the impact genre has on how the mythical people are understood. Dr. Duffy has also worked on the figure of Ajax in Homeric epic, and on modern popular culture's appropriation of antiquity. In Spring 2013, as part of his seminar on "Travel and Ethnography in the Ancient World", Dr. Duffy has also designed and deployed a web-based interactive map and travel guide to the people and places of antiquity, *The Roadrunner's Guide to the Ancient World*, with all content created by students at the University of Texas at San Antonio, and targeted at students and community members.

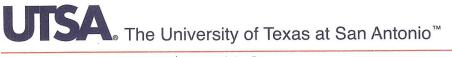
#### 7. DATA MANAGEMENT PLAN

Because the project is articulated into three successive phases of design specification; data collection and markup; and web deployment, our data management plan is correspondingly phaseable. In the first phase (design specification), project data consists simply of the design specification in text document (Microsoft Word) format. For example, a minimal specification will elaborate an initial set of hierarchically organized and derivable database entry types being:

- [word], representing a lexical form, with limited semantic information in the form of grammatical class, and its various senses;
- [concept], consisting of a description of an event, object, person, and so on;
- [sense], representing the "meaning" of a word, that is, the relation of concept to a particular frame or domain; [expression], representing a conventionalized, fixed-form phrasing; its meaning; and representative citations; [citation], defining an ordered series of words, with citation information (chronology, authorship, name of
- work; comparables);
- [frame], defining a structured set of concepts (or other frames) and relations;
- [domain], defining a collection of frames and concepts and their relations;
- [conceptual metonymy], defining a set of directional mappings between constituent elements of a single domain or frame;
- [conceptual metaphor], defining a directional mapping between constituent elements of two different domains or frames

To ensure data integrity and continuity, however, this document will be stored in a secure location on University of Texas at San Antonio servers, accessible only to project collaborators with the correct credentials. Modifications to the document will be subject to management and approval by the project director, and any collaborator making such changes will be required to indicate the change in a "commit log" that includes justification for this change. In this way, project collaborators will not only have a centralized location for working on the projet documentation, but also a means of actively negotiating design protocols and discussing the value of specific database design and data markup specifications. In the second phase (data collection and markup), data will exists according to two typologies. First, data will be collected by individual collaborators, again in simple text document format housed on a secure (and redundantly backed-up) servers, from relevant research sources. Second, this data will be integrated, again in a managed and logged environment, into the relational database housed on UTSA servers, through a simple web-based interface designed for this purpose. All additions to the database or modifications to entry markup will be automatically logged, and will require the approval of the project director before being committed. In the final stage of the project (deployment), modifications to the database will only be permissible by the project director. The database will be accessible to the general public through a web-based search portal for the period of one year (outside of the period of the requested grant), during which time provision will be made for "crowdsource" collaboration. At this point, changes to the database will be permisible to users who register an account with the site and who are approved by an editorial staff consisting of the project director and other invited scholars, following the model of the FrameNet Project established by the International Computer Science Institute at the University of California, Berkeley.

# 8. LETTERS OF COMMITMENT AND SUPPORT



College of Liberal and Fine Arts | Office of the Dean

August 19, 2013

Dear Review Committee Member:

In Fall 2012, the University of Texas at San Antonio's College of Liberal and Fine Arts (COLFA) established an initiative to encourage our faculty members to undertake innovative digital humanities projects, particularly when such projects can demonstrate clear benefits to the academic community at large. As part of UTSA's efforts to achieve Tier 1 status as a nationally-recognized research institute of the highest caliber, this initiative was intended specifically to foster collaborative projects that bring new technologies to bear on the ways that research is conducted in the humanities.

The project proposed by Dr. Short, entitled "A Frame-Based Latin Lexicon", is fully consonant with the aims of this initiative, and promises both to raise the profile of our university and to constitute an invaluable tool for research and pedagogy for scholars in a number of related fields. In particular, Dr. Short's project (as well as his own research) embodies the potential of research endeavors with an interdisciplinary orientation: while its data is firmly rooted in classical scholarship and Latin philology, the framework in which this data will be organized takes its inspiration from contemporary cognitive linguistics and anthropology. As an anthropologist myself (and one with strong linguistic interests), I can only approve of a project that construes the lexicon in the broadest possible terms – that is, to include metaphors, semantic frames, and indeed encyclopedic knowledge – and so as a resource for understanding culture. Moreover, Dr. Short's own work combines these various perspectives in a way that is perhaps unique among American classicists, something recognized by his impressive record of published scholarship.

If funded by an NEH Digital Humanities Start-Up Grant, Dr. Short and his team can therefore rely on the college's full support, in terms of release time from other responsibilities in order to work on this project, technical assistance, and so forth. Dr. Short's experience as his department's website coordinator, along with Dr. Duffy's proven ability to bring large-scale digital humanities projects to completion, certainly augur great success in this undertaking. In addition, the college employs two dedicated local technicians to support this kind of enterprise. Therefore, COLFA is well-positioned to assure success of the project.

Thank you for giving this worthy project your serious consideration.

Sincerely,

anil & bee

Daniel J. Gelo Dean Stumberg Distinguished University Chair

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August 19, 2013

To: NEH Office of Digital Humanities

Re: Letter of Support for Digital Humanities Start up Grant

I provide this letter of support for the Digital Humanities grant proposal being submitted by Dr. William Short of the UTSA Classics Department to the National Endowment for the Humanities. This project provides the technical specification for an interactive, extensible online Latin dictionary whose articles can be sorted, arranged and viewed dynamically according to user-specified semantic relationships. My understanding of the proposal is that he will be building a crowd-sourced database for Latin that will use a crowdsourcing approach offering sustainability by relying on a group to build the content rather than a single (or small number of) individuals(s).

The final phase will involve the development of the web-based interface permitting users to access the database and to visualize, in a dynamic fashion, representations of linked database entries according to user-specified configurations. It is during this phase that the project will need programming resources for the database and web interface side of things.

The Office of Information Technology (OIT) commits its support to this project by providing the physical resources (servers, storage, internet connectivity, etc.) to the project, as well as assistance in acquiring technical resources. We further commit to assistance in managing the technical resources to ensure standards are followed in retaining long-term sustainability of the product produced. The project has an allocated budget for the programing resources, and OIT will manage the related resources within the allocated budget constraints.

Sincerely,

28/ ....

Kenneth R. Pierce Vice Provost for Information Technology and CIO

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Department of Philosophy & Classics College of Liberal and Fine Arts

This letter confirms my support for, and plans to participate in, Dr. William Short's "Frame-Based Latin Lexicon" project. Dr. Short's approach to the organization and description of the Latin provides what I believe to be a novel and necessary addition to current online translation resources, in a field which has proven to be very receptive to such projects. My own background in digital humanities projects will also allow me to be an effective collaborator in Dr. Short's endeavors.

First, I will bring to Dr. Short's project a deep background in digital humanities projects. The University at Buffalo, where I received my Ph.D, is home to the Digital Humanities Initiative (http://digitalhumanities.buffalo.edu/), and its Department of Classics hosts the Tesserae Project (http://tesserae.caset.buffalo.edu/), which provides a digitized means of identifying intertextual relationships between Latin literary sources – just as a frame-based lexicon will allow scholars to identify the networks of linguistic, literary, and cultural meaning needed to gain a complete understanding of Latin semantics. My own doctoral research took full advantage of these resources. I have also contributed to the Center for Hellenic Studies' Homer Multitext Project (http://www.homermultitext.org/), another successful digital classics initiative. Finally, I spent worked at the *Thesaurus Linguae Latinae*, a now century-long project representing arguably the most ambitious example of the traditional brand of Latin lexicography that Dr. Short's project intends to supplement.

My own recent experience shepherding an online database to functionality will also benefit this project in tangible ways. In Spring 2013, I developed, and deployed the Roadrunners' Guide to the Ancient World (roadrunnersguidetotheancientworld.com), utilizing Google Maps data to create an interactive online map with links to student-designed "guides" to numerous ancient cities and sites. Featured in UTSA's College of Liberal and Fine Arts "Ovations" magazine as well as at UTSA's Innovations in Online Learning conference, The Roadrunners' Guide to the Ancient World allowed me to develop web programming skills and experience that will be necessary for implementing the online lexicon; in particular, my efforts to integrate multiple authors' contributions into a single project plays directly into the "crowd-sourced" approach envisioned by Dr. Short's project.

Finally, Dr. Short and I have a proven ability to work together on research projects of this kind. In a collaborative paper written last year, "Metaphor and the Authority of the Greek Oral Tradition," our specialties in two radically different aspects of classical scholarship combined to produce a cohesive and compelling paper on the metaphorical structure of Greek culture's understanding of the epic tradition as a source of social knowledge. In brief, I believe that Dr. Short's expertise in Latin lexicography, my background in digital humanities, and our ability to collaborate successfully augur great success in crafting this promising resource for classicists and linguists.

Sincerely, WULG William Duffy

Lecturer II

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#### **9. APPENDIX**

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