Proposal Type: NEW ✓ SUP  CON  MTA □  RES  TRN  REN □  RFP □  No. _______

Project Function:
- Research ✓
- Instruction □
- Public Service/Extension
- Scholarship/Fellowship
- Other: __________

TAMU

1. Title: Narratology and Network: Understanding Conflict

2. Sponsor: NATIONAL ENDOWMENT FOR THE HUMANITIES

2a. Sponsor Address: __________________________

Phone: __________________________ Fax: __________________________ E-mail: __________________________

3. Investigator(s) Information

PI: MANDELL, LAURA mandell@aco.tamu.edu TAMIU-COLLEGE-LIBERAL ARTS TAMIU-ENGLISH(00037) TAMU

4. Human Subjects: Yes ✓ No □

5. Lab Animals:
   - Species: __________________________

6. Recombinant DNA: Yes ✓ No □

7. Conflict of Interest: Yes ✓ No □

8. Infectious Biohazards: Yes ✓ No □

9. Classified or Proprietary: Yes ✓ No □

10. Commercial Potential: Yes ✓ No □

11. International Effort: Yes ✓ No □

12. Scientific Diving: Yes ✓ No □

13. Radioactive Material: Yes ✓ No □

14. Involves University Faculty: Yes ✓ No □

15. Use of University Facilities: Yes ✓ No □

16. Renovations Required: Yes ✓ No □

17. Activity: 1A

18. Field of Science: 2L

19. Area of Special Interest: _________

ANNUAL REPORT CODES: Official Use Only


21. Selection: 5A

22. Sponsor: F

23. LBB Requirement: _________

BUDGET INFORMATION

24. Current Period: 10/1/2012 to 09/30/2013

25. Duration: 3 Yr(s) 0 Mo(s)

26. Total Sponsor Support: $282,821.00

27. Total F&A Cost: $77,096.00

27a. F&A Rate: 46.00%

28. Total F&A Cost Base: $167,601.00

28a. F&A Amount Waived: $972.00

29. F&A Level: L2

30. F&A Justification: J1

31. Tuition Status: T1

32. Tuition Justification: J1

COST SHARING INFORMATION

33. Institutional Services:
   - Account Number: 02-137600
   - Amount: $44,678.00

34. External Sources:
   - (Name): __________
   - Amount: $__________

35. Total Project Cost (= #26 + #31 + #32): $327,499

33. PLANNED DISTRIBUTION OF SPONSOR FUNDS: F&A COSTS

System Part

02 $77,096.00 100% 02 $205,725.00 100.00%

34. TOTAL COST (Expenditure Plan)
### Routing Progress

1201157 - LAURA MANDELL "Narratology and Network: Understanding Conflict"
Submitted by RESEARCH FOUNDATION ROUTING on behalf of LAURA MANDELL

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**Comments**

LAURA MANDELL
ERGUN AKLEMAN
STEFANO FRANCHI
VPR OFFICE
NANCY B WARREN
TIMOTHY MCLAUGHLIN
ALBERTO MOREIRAS
ALBERTO MOREIRAS
GERIANNE M ALEXANDER
LOUIS G TASSINARY

*HELEN WISE bypassed this routing step on 20-Dec-2011 9:42:50 AM*

*TAMU #12-0383*
Your application has been retrieved by the Grantor agency and is currently being reviewed.

Type: GRANT
Grants.gov Tracking Number: GRANT11023757

We will notify you via email when your Grantor agency has assigned an Agency Tracking Number to your application.

Thank you,

Grants.gov Customer Support
www.support@grants.gov
800-518-4726 (7 a.m. - 9 p.m. ET)

PLEASE NOTE: This email is for notification purposes only. Please do not reply to this email for any purpose.
http://trapply.grants.gov
Contact Center hours of operation are Monday-Friday from 7:00 A.M. to 9:00 P.M. Eastern Time.

The following application tracking information was generated by the system:

Grants.gov Tracking Number: GRANT11023757
Applicant DUNS: 02-027-1826
Submitter's Name: Chris Slape
CFDA Number: 45.161
CFDA Description: Promotion of the Humanities - Research
Funding Opportunity Number: 20111208-RZ
Funding Opportunity Description: Collaborative Research
Agency Name: National Endowment for the Humanities
Application Name of this Submission: Mandell 1201157
Date/Time of Receipt: 2011.12.08 6:03 PM, EST

TRACK MY APPLICATION – To check the status of this application, please click the link below:

It is suggested you Save and/or Print this response for your records.
Grant Application Package

Opportunity Title: Collaborative Research
Offering Agency: National Endowment for the Humanities
CFDA Number: 45.161
CFDA Description: Promotion of the Humanities Research
Opportunity Number: 20111208-RZ
Competition ID: INST
Opportunity Open Date: 09/16/2011
Opportunity Close Date: 12/08/2011
Agency Contact: If you have questions about the program, contact NEH’s Division of Research Programs at 202-606-8200 and collaborative@neh.gov. Hearing-impaired applicants can contact NEH via TDD at 1-866-372-2930

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here. If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the “Cancel” button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

Application Filing Name: Mandell 1201157

Mandatory Documents

Optional Documents

Mandatory Documents for Submission
Application for Federal Domestic Assistance-Sho Supplementary Cover Sheet for NEH Grant Program Project/Performance Site Location(s)
Attachments

Optional Documents for Submission

Instructions

1. Enter a name for the application in the Application Filing Name field.
   - This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
   - You can save your application at any time by clicking the “Save” button at the top of your screen.
   - The “Save & Submit” button will not be functional until all required data fields in the application are completed and you clicked on the “Check Package for Errors” button and confirmed all data required data fields are completed.

2. Open and complete all of the documents listed in the “Mandatory Documents” box. Complete the SF-424 form first.
   - It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.
   - The forms listed in the “Mandatory Documents” box and “Optional Documents” may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. “Mandatory Documents” are required for this application. “Optional Documents” can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding “Optional Documents”.
   - To open and complete a form, simply click on the form’s name to select the item and then click on the => button. This will move the document to the appropriate “Documents for Submission” box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the “Open Form” button to begin completing the required data fields. To remove a form/document from the “Documents for Submission” box, click the document name to select it, and then click the <= button. This will return the form/document to the “Mandatory Documents” or “Optional Documents” box.
   - All documents listed in the “Mandatory Documents” box must be moved to the “Mandatory Documents for Submission” box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

3. Click the “Save & Submit” button to submit your application to Grants.gov.
   - Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the “Save” button.
   - Click on the “Check Package for Errors” button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
   - The “Save & Submit” button will become active; click on the “Save & Submit” button to begin the application submission process.
   - You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.
APPLICATION FOR FEDERAL DOMESTIC ASSISTANCE - Short Organizational

1. NAME OF FEDERAL AGENCY:
   National Endowment for the Humanities

2. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
   45.161

CFDA TITLE:
   Promotion of the Humanities_Research

3. DATE RECEIVED:  Completed Upon Submission to Grants.gov  SYSTEM USE ONLY

4. FUNDING OPPORTUNITY NUMBER:
   20111208-RZ

* TITLE:
   Collaborative Research

5. APPLICANT INFORMATION

   a. Legal Name:
      Texas A&M University

   b. Address:
      Street 1: 400 Harvey Mitchell Parkway South
      Street 2: Suite 300
      City: College Station
      State: TX: Texas
      Country: USA: UNITED STATES
      Zip/Postal Code: 77845-4321

   c. Web Address:
      http://www.tamus.edu/offices/cro/osrs/

   d. Type of Applicant: Select Applicant Type Code(s):
      H: Public/State Controlled Institution of Higher Edu

      * e. Employer/Taxpayer Identification Number (EIN/TIN):
         74-6000531

      * f. Organizational DUNS:
         0202718260000

      * g. Congressional District of Applicant:
         TX-017

6. PROJECT INFORMATION

   a. Project Title:
      Narratology and Network: Understanding Conflict

   b. Project Description:
      What would the field of decision science look like if, among the disciplines included in it, were literature, psychoanalysis, philosophy, and humanistic visualization? The latter, an emerging discipline, allows visualizing emotions and values, uncertainty and interpretation, conflicting viewpoints. Working within that field and developing software that allows non-experts to effectively engage in narratological analysis, we approach that question head on. Our answer is that decision science would look like literary analysis, and that understanding interactions from the viewpoint of multiple interpretations can reduce conflict among members of a global network.

   c. Proposed Project:  * Start Date: 10/01/2012  * End Date: 09/30/2015
## Application for Federal Domestic Assistance - Short Organizational

### 7. Project Director

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<tr>
<td>Prefix</td>
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</tr>
<tr>
<td>* First Name</td>
<td>Laura</td>
</tr>
<tr>
<td>Middle Name</td>
<td></td>
</tr>
<tr>
<td>Suffix</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Last Name</td>
<td>Mandell</td>
</tr>
<tr>
<td>* Title</td>
<td>Professor</td>
</tr>
<tr>
<td>* Email</td>
<td><a href="mailto:mandell@tamu.edu">mandell@tamu.edu</a></td>
</tr>
<tr>
<td>Telephone Number</td>
<td>979-845-8345</td>
</tr>
<tr>
<td>Fax Number</td>
<td></td>
</tr>
<tr>
<td>Street1</td>
<td>4227 TAMU</td>
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<tr>
<td>Street2</td>
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### 8. Primary Contact/Grants Administrator

- Same as Project Director (skip to item 9):

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<td>* Email</td>
<td><a href="mailto:jroth@tamu.edu">jroth@tamu.edu</a></td>
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<td>979-845-4138</td>
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<tr>
<td>Fax Number</td>
<td>979-862-3250</td>
</tr>
<tr>
<td>Street1</td>
<td>400 Harvey Mitchell Parkway South</td>
</tr>
<tr>
<td>Street2</td>
<td>Suite 300</td>
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<td>* Zip/Postal Code</td>
<td>77845-4321</td>
</tr>
</tbody>
</table>
APPLICATION FOR FEDERAL DOMESTIC ASSISTANCE - Short Organizational

9. * By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties (U.S. Code, Title 218, Section 1001)

** I Agree [X]

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

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<td><a href="mailto:cslape@tamu.edu">cslape@tamu.edu</a></td>
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Supplementary Cover Sheet for NEH Grant Programs

1. Project Director
   * Major Field of Study
     DD: Literature - British

2. Institution Information
   * Type
     1330: University

3. Project Funding

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4. Application Information

* Will this proposal be submitted to another NEH division, government agency, or private entity for funding?
  ✔ Yes
  ☐ No

If yes, please explain where and when:
National Science Foundation, December 2011

* Type of Application
  ✔ New
  ☐ Supplement

If supplement, list current grant number(s):

* Project Field Code
  ✔ U8: Humanities
### Project/Performance Site Location(s)

**Project/Performance Site Primary Location**

- I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

- **Organization Name:** Texas A&M University
- **DUNS Number:** 0202718260000
- **Street1:** 4227 TAMU
- **Street2:** Department of English
- **City:** College Station
- **State:** TX: Texas
- **County:** Brazos
- **Country:** USA: UNITED STATES
- **ZIP / Postal Code:** 77845-4321
- **Project/Performance Site Congressional District:** TX-017

**Project/Performance Site Location 1**

- I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

- **Organization Name:**
- **DUNS Number:**
- **Street1:**
- **Street2:**
- **City:**
- **State:**
- **Province:**
- **Country:** USA: UNITED STATES
- **ZIP / Postal Code:**
- **Project/Performance Site Congressional District:**

### Additional Location(s)

[Add Attachment] [Delete Attachment] [View Attachment]
**ATTACHMENTS FORM**

**Instructions:** On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

**Important:** Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

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1. Statement of the Significance and Impact

Narratology and Network: Understanding Conflict

In this grant, we propose to rethink, using humanities principles, the philosophical and literary study of narratology, work that has been done recently in cognitive science concerning what Daniel Kahneman calls “Fast Thinking” (2011), the knee-jerk reactions that cause people to act and react in social interactions. Kahneman was awarded the Nobel Prize in Economics because of the impact of his work upon understanding human decisions. What would the field of decision science look like if, among the disciplines included in it, were literature, psychoanalysis, philosophy, and humanistic visualization? The latter, an emerging discipline, allows visualizing emotions and values, uncertainty and interpretation, conflicting viewpoints. Working within that field and developing software that allows non-experts to effectively use narratological analysis, we approach that question head on. Our answer is that decision science would look like literary analysis. After gathering networked interactions of all sorts, from email exchanges to blog postings and twitter streams, we will feed them into the CANE software tool that we propose to build, a “Computer-Assisted Narrative Extractor.” Using it to mark out story elements in these interactions from multiple perspectives with cultural determinants, CANE will then output the analysis as a visualization. CANE allows visualizing conflicting stories to see whether any insight can be gained that could, we imagine, help people understand conflicts in which they sometimes find themselves embroiled among members of a global community.
# TABLE OF CONTENTS

Statement of Significance and Impact (statement.pdf) ........................................... 1  
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Narrative (narrative.pdf) .......................................................................................... 4  
Budget (budget.pdf) .................................................................................................. 17  
Appendices (appendices.pdf) .................................................................................... 20  
Grant History (granthistory.pdf) ............................................................................... 30
3. Participants List

Narratology and Network: Understanding Conflict

**Akleman, Ergun** (Co-PI), Professor of Visualization, Texas A&M University

**Franchi, Stefano** (Co-PI), Associate Professor of Hispanic Studies, Texas A&M University.

**Mandell, Laura** (Principal Investigator), Professor of English; Director, Initiative for Digital Humanities, Media, and Culture, Texas A&M University
4. Narrative

Narratology and Network: Understanding Conflict

- Substance and Context

In *The Wealth of Networks* (2006), Yochai Benkler talks about the possibility of “polity-wide discourse” taking place in what he calls the networked public sphere, but repudiates the “utopianism” that one might infer from this plain fact (260). The very “dynamics of linking in a network of connected nodes” that he describes no more ushers in the millennium than did mass-print and mass-education. The advent of global networks made possible by new media poses problems and opportunities for human interactions. The participants in this grant application agree concerning one of those opportunities: humanities principles have never been more urgently needed than in teaching, learning, and understanding networked interactions.

There is a field designed to analyze human choices and actions in networked environments. The field of decision science emerged during the last half of the twentieth century, its development accelerated in response to globalization via new media. It is radically interdisciplinary, involving psychology, economics, computer science, and business. Its interdisciplinary and collaborative nature was marked by Daniel Kahneman’s receipt of the Nobel Prize in Economics: Kahneman is a cognitive psychologist who worked closely with Amos Tversky using quantitative methods for “mapping deviations from rationality,” as he said in his acceptance speech (2002).

In reviewing Kahneman’s most recent book, *Thinking, Fast and Slow* (2011), Nuclear Physicist Freeman Dyson contrasts Kahneman’s contribution with Freud’s: “The great contribution of Kahneman was to make psychology an experimental science, with experimental results that could be repeated and verified. Freud, in my view, made psychology a branch of literature, with stories and myths that appeal to the heart rather than to the mind.” Dyson, himself no enemy to quantitative analysis, regrets that Kahneman’s experimental, scientific approach to understanding human subjectivity and its effects upon human interactions eclipses the work of both Freud and William James who were “artists not scientists.” What would the field of decision science look like if, among the disciplines included in it, were literature, psychoanalysis, philosophy, and humanistic visualization (an emerging discipline, described in more detail below)? We propose in this grant to bring literature, the stories and myths that comprise Freud’s “fundamentally literary technology” (Forrester) to the forefront as a mode of analyzing “fast thinking,” or the subjective intuitions that drive inter-subjective interactions in the new public sphere of the global network.

Kahneman’s notion of “fast thinking” is incredibly important, but misguided insofar as it attributes the structure of “gut reactions,” as some reviewers have called it, to evolutionary predispositions. In our view, explaining virtually instantaneous reactions via biological determinism is deeply misguided. As Daniel Dennett argues in *Brainstorms*, when we are faced with an important decision, a consideration-generator whose output is to some degree undetermined produces a series of considerations, some
of which may of course be immediately rejected as irrelevant by the agent (consciously or unconsciously) . . .

Dennett here preserves the notion of free will—reactions are “to some degree undetermined”—but more importantly he here describes a tacit structure in the human brain that rapidly, unconsciously sorts through possible reactions to interactions with the physical and social world.

What kinds of knowledge can be deployed rapidly? Working in the field of visualization, Ron Burnett argues that no matter how rapidly one responds emotionally to a given image, that response is not just a matter of “seeing” but rather involves “interpreting” (How Images Think, 2004). And indeed, in 1966 Segall, Campbell, and Herkovits persuasively argued that people in different cultures are not susceptible to the same optical illusions. A wealth of cultural information informs habitual modes of understanding that intervenes in the very act of perception itself. From Laura Bohannan’s “Shakespeare in the Bush” (1966) to Roy D'Andrade's Development of Cultural Anthropology (1995), we have known that cultural knowledge influences even immediate perception of the physical world. Moreover, such knowledge takes the form of stories. Narratology, a discipline that arose from literary analysis (Barsalou, Barthes, Bremond, Fireman, Greimas, Herman, Lebowitz, and Ryan), offers the concepts necessary for understanding cultural perceptions.

High-speed, preconscious interpretation is possible because each human being carries a wealth of cultural knowledge. We have known since the pioneering work of Vladimir Propp, Antti Aarne, and Stith Thompson of the twentieth century up through archetypal theories and the new cognitive scientists such as Jerome Bruner and George Lakoff that humans think in terms of story patterns, and it is precisely cultural forms of storytelling allow us to think and make decisions very, very quickly. Even apparently instantaneous decisions such as what to do when someone pulls a gun are informed by the story-gestalts surrounding guns described by Lakoff and Johnson in Metaphors We Live By (1980). Lakoff shows again and again his work that story-gestalts—coherent narratives made up of story elements—provide maps for decision-making and action (Women, Fire, 1990; Moral Politics, 2002). And, of course, culturally-inflected stories inform conflict.

We propose in this grant application to show that conflict in networked interactions can be analyzed by tracking culturally determined stories and the roles that individuals imagine themselves to be playing in them. We wish to build a tool that can be used to extract stories from twitter streams, email exchanges, and other forms of networked interaction. Tool users would be asked to tell their story and explain their role in it in successive phases of any past networked interaction that they can examine in detail and wish to explain, to themselves and to others. Though stories would be culturally and personally specific, the tool will connect its elements to a cross-cultural set of story elements and roles. Those who come to use our tool for the sake of understanding conflict may be able to invite their antagonists to participate in the analysis as well so that both sets of stories and roles can be extracted from the digitized record of their interactions, but, if not, the tool will be built to perform some automatic and approximate story extractions based upon an antagonist’s cultural context and the language used in the interaction (Meister, 2005; Lakoff and Narayanan, 2010). The result will be an animated visualization that shows story structures activated and roles played as the networked interaction unfolds in time.
Visualization can be a humanities discipline. Graphing, for instance, which involves mathematizing instances—in this case, story elements and roles—can indeed quantify human affects without having them lose their properties as “value” (Latour and Lépinay, The Science of Passionate Interests, 2009). In “Humanities Approaches to Graphical Display,” Johanna Drucker points out that Humanities Visualization offers “methods of presenting ambiguity and uncertainty in more nuanced terms,” and points to new work in GIS and other areas of visualization (e.g., Griethe and Schumann). This field is emerging to some degree in response to global conflicts—terrorism. Visualizing uncertainty, for instance, that key element which distinguishes fact from interpretation, has been necessary in developing the Global Terrorism Database (Jones, et. al.). New technologies and new needs arising from globalization together are calling for the humanities disciplines to become “applied” precisely because their interpretive power is needed to understand world conflict. Humanities Visualization, a powerful way of understanding the world, is a newly emerging field to which this research project would contribute.

- **History and Duration**

In 2001-2002, Laura Mandell received a grant from the Ohio Learning Network (OLN) to run a learning community about how to interject humanities concepts into technology. The result was a series of course modules that have been published as part of the Ohio Learning Network E-Learning Athenaeum: [http://www.muohio.edu/technologyandhumanities/](http://www.muohio.edu/technologyandhumanities/). In 2004-2005, she received an additional grant from OLN to develop the course module “Narrative and Digital Technology” ([http://www.units.muohio.edu/technologyandhumanities/narastech.htm](http://www.units.muohio.edu/technologyandhumanities/narastech.htm)) by developing a “Learning Narrative Structure” tool ([http://www.muohio.edu/update/160elements/FulBook.html](http://www.muohio.edu/update/160elements/FulBook.html)). Led by group of humanities scholars together extracted story elements and worked with a graphic designer to represent them in pictures. Finally, as part of a course she designed for Miami University’s Game Studies Minor called “Narrative and Digital Technology” ([http://wiki.lib.muohio.edu/literature/index.php/NDT](http://wiki.lib.muohio.edu/literature/index.php/NDT)), Mandell created an XML Schema for encoding stories, using Barthesian terminology, and an XSLT transform to create different genres from encoded base texts. That project failed, and in general the attempt to automate detections of genre has not been very successful (Lit Lab Pamphlet 1, Stanford University).

Recently Mandell moved to Texas A&M University to direct the Initiative for Digital Humanities, Media, and Culture (IDHMC). She has there convened a group for the discussion of narrative, digital media, and visualization, including Stefano Franchi, Ph.D. in Philosophy and co-applicant, whose Stanford Dissertation analyzes narratological theories from Propp and Greimas up to Herman. His work in Artificial Intelligence has included analyzing the difficulties of programming machines to tell stories—the impossibility of doing so automatically. Ergun Akleman, another member of the group, has devoted his work as a graphic artist to figuring out how minute adjustments in images convey completely different stories.

Together, this group came up with the idea of developing CANE, a Computer-Assisted Narrative Extractor (see figure 3, below).
When users come on the web to use our tool in order to analyze a conflicted network interaction, they will upload the email messages, web stream, or blog commentary into CANE and begin marking it up using icons and keywords. That intuitively understandable set of terms will be translated into a more formal narratological language, using a schema that the grant participants will develop over the course of grant tenure. It will resemble the schema (actually, it is a document type definition or DTD for regulating what can be put into an XML document) developed by Mandell. Even though it is code of a sort, one can see that the narrative terminology used to develop xml elements comes from Barthes, his notions of “cardinal functions” and “catalysers,” for instance:

Figure 1: Barthesian DTD

Our group will rewrite this schema for the CANE tool after investigating its cross-cultural applicability, and we will also work on translating it into intuitive terms.

The CANE tool will be put up on the servers of the IDHMC, and will be held there in perpetuity as a signature project. It will be an open-source tool complete with documentation, allowing other researchers to contribute to and modify it, adding to or changing the narratological and intuitive story terms. The IDHMC is sustained by an annual operating budget that will keep this resource available and can commit to sustaining it for ten years. When Mandell steps down as director, she will create an archive of the tool and various results to be housed at Texas A&M Libraries Digital Repository. A working group sponsored by the IDHMC is currently determining precisely the terms of archiving digital projects in the library repository.

- Staff

PI Laura Mandell is an English Professor and Director of the newly launched IDHMC at Texas A&M University. She received her Ph.D. from Cornell University in 1992. Her first book and numerous articles focus on humanities topics, while forthcoming books focus on the digital and programming for Humanities professors (XSLT). Her research has involved creating a tool for teaching narrative structure (http://www.muohio.edu/update/160elements/FullBook.html), funded by the Ohio Learning Network in 2004-2005 while she was a Professor at Miami University. As Affiliate of Interactive Media Studies, Mandell developed a course called "Narrative and Digital Technology" (ENG/IMS 238), which became part of Miami University's Game Studies Minor. She currently works on aggregating huge amounts of textual data for
research as Director of 18thConnect.org, and on collaborative projects with STEM researchers at Texas A&M. The IDHMC will be hosting two working groups during 2012: an interdisciplinary narrative working group and a group of primarily librarians on sustaining digital projects.

Co-PI Ergun Akleman is a Professor of Visualization at Texas A&M University. He received his Ph.D. degree in Electrical and Computer Engineering from the Georgia Institute of Technology in 1992. He is also a professional cartoonist, and he has a strong background in applied mathematics. His research interests require the skills and talent of an artist, an intuitive and rigorous knowledge of mathematics, and theoretical and practical knowledge of computer science. As a person with both artistic and scientific expertise, Akleman has extensive experience at successfully integrating art with science and technology in education, as well as in research. Akleman's research has been extensive on implicitly specified shapes, on topological mesh modeling and computer aided sculpting. He has also developed a wide variety of techniques in visualization, visual-storytelling, and both photorealistic and non-photorealistic rendering—such as camera painting, 3D Chinese painting, 3D caricatures, cubist, futurist and hair rendering.

Co-PI Stefano Franchi is Associate Research Professor in the Department of Hispanic Studies, Texas A&M University. He received is Ph.D degree in Philosophy from Stanford University in 1997. He worked as a software developer between 1984 and 1989. From 1990 to 1995, he was also a research intern at Xerox Parc in the Embedded Computation Area, under the direction of Dr. Brian Cantwell Smith. He has published extensively on 20th-century European philosophy, the history and philosophy of science in the 20th century, and on the history of Artificial Intelligence and cognitive science. He is the editor (with Güven Güzeldere) of Mechanical Bodies, Computational Minds (MIT Press, 2005) and (with Francesco Bianchini) of The Search for a Theory of Cognition. Early Mechanisms and New Ideas (Rodopi, 2011).

In addition, we will hire two graduate students per year, one in the Humanities (English, Hispanic Studies, or Philosophy), and one in the College of Architecture’s Department of Visualization. These students will work closely together and with us in order to create CANE, which involves programming, graphic design, and the study of narrative.

- Methods
  Our methodology is divided into three parts: a) distilling the narratological elements we wish to use; b) designing the software—CANE—that people can use to mark up stories using ordinary language and intuitive icons which will be translated into more precise narratological terms; c) visualizing the stories that have been marked up in the CANE tool so that narrative types and the character roles that go with them can be connected among multiple, culturally specific stories. Here the goal is to show people that, although they imagined themselves as a character in one story, a node connected in specific ways to other nodes, from another point of view that node played a different character in another story. Can conflict be explained through these means, and can this analysis work productively among groups of people interacting in a network?

a) Distillation:
Narratological analysis was started in the 1920s by Vladimir Propp who developed a grammar covering a restricted corpus of Russian folktales. Propp's analysis decomposed each specific
story that he analyzed into an initial state comprising a small collection of characters (dramatis personae) and a set of narrative functions over states. The application of a function to a state produces either the end state (the end of the story) or a new state (events as they occur, progressing toward the end). Propp showed that a small set of about 30 narrative functions plus a few constraints on the ordering of functions could generate the whole chosen corpus of Russian folktales.

Propp's analysis was used in some early story-telling programs in Artificial Intelligence (Meehan, 1977; Meehan 1981, Lebowitz 1984, Lebowitz 1985), with limited results. One reason for this is that Propp's account of characters is imprecise and overly generic, while the set of functions he identified is too redundant and ad hoc, in fact reflecting the specific features of the stories that he chose to analyze. Consequently, it is difficult to apply Propp's theory to other categories of stories and even more difficult to obtain a truly general theory of all possible stories from it. Thus, shortcomings of early attempts in AI to use narrative are a direct consequence of problems in applying Propp: the range of stories the programs could generate was very limited and any effort to broaden their scope was inherently ad hoc.

Propp's theory was substantially refined in the 1960s (Barthes, 1966; Greimas, 1983; Bremond 1973), when a distinct discipline called “narratology” emerged. Our proposal follows the approach first advanced by Greimas (Greimas, 1983). Greimas introduced the concept of “actant” in place of Propp's characters and showed that a generic story could be analyzed in terms of the circulation—regulated by strict rules—of valuable objects among a very limited number of actants. Artificial Intelligence research in story-understanding and story-telling ignored post-Propp narratological research until very recently. Partly as a result of the work of Herman (2002) and Ryan (2004), computational approaches to narrative (Meister, 2005) have gained a renewed impetus and the computational representation of standard narratological models is one of explicit goals in the field (Scharfe, 2000; Gervas, 2006; Peinado, 2004; Finlayson 2010).

Our proposed work begins by developing a general framework of story narratives that can be used for modeling network interaction between individuals and groups. Our general framework is based upon the observation that humans are not rational agents but also do not act arbitrarily. Their actions result from imperfect knowledge combined with the personal and cultural stories they imagine themselves fitting into at any given moment in a networked interaction. As Galen Strawson has successfully argued, many human beings do not imagine their lives as one overarching, autobiographical narrative. But we believe that culturally inflected stories provide ways of perceiving what’s going on in dialogues at any given moment: everybody does adopt roles in specific situations (Goffman, 1959). While each narrative at play in participants’ minds does entail certain roles and events, any given human being might change stories and roles multiple times within any given networked interaction, and one person could occupy several character roles at one time, and in fact almost by definition does so when there is a conflict among members of a group insofar as that conflict can be defined by incongruent stories being told by antagonists. Because we imagine, and will create tools and visualizations to reflect that Thus, in our general framework we consider humans as narrative characters called “actants” who may act irrationally, but their actions are not arbitrary and are still governed by discernible rules.

b) CANE:
Figure 2: A Diagram of How CANE will work.

Legend:

1: a *particular* collection of stories—the twitter stream from the streets of Cairo, for instance, during events in the Arab Spring—gathered from online media. The stories comprising these first test sets will be spatially, geographically, or culturally localized. They constitute a “textual corpus.”

2: a formal object representing the narrative structure of a *single* story belonging to 1. The object will be an xml-encoded document using tags and the schema developed in a) distillation above.

3: a “theory” of 1 in the logical sense: that is, a collection of axioms and production rules (and constants, etc.) such that applications of the rules to the axioms produces formal structures of type 2. A complete theory would produce all the *possible* (actual or virtual) elements of 1 and nothing else. In a sense, item 3 does 1 and 2 backwards, generating particular stories out of abstract principles.

4: an even more general theory, which has elements of type 3 as its instances. For instance, if 3 is a theory of, let's say, Russian folktales, then 4 is a theory of “all possible folktales,” which would produce “a theory of Russian folktales” once time, space, and broad cultural traditions are specified.

5: A collection of software tools built upon a theory of type 4 that allows “computer-aided storytelling.”

The CANE tool will be built supposing a 1 \( \rightarrow \) 2 \( \rightarrow \) 3 computational path, an inductive computational approach. The reverse path, 3 \( \rightarrow \) 2 \( \rightarrow \) 1, involves theory validation. Our project would work within the 1 \( \leftrightarrow \) 3 loop. Most narratological theories (Propp, Greimas, Bremond, Chatman, Levi-Strauss. etc) belong either to 3 or to 4. However, even the most formal classical narratological theories (e.g. Propp's, Levi-Strauss's) are far from being formalizable in the sense required here. Marie Laure-Ryan's theory aims to belong to level 4.

Two points make our method stand out;

1. The 1\( \rightarrow \)3 and the 3\( \rightarrow \)1 paths have been pursued largely independently from each other in the AI community:
   a. 1\( \rightarrow \)3 is "story-understanding";
b. 3--1 is "automated storytelling," and there are examples of this of which we are aware so far (Lakoff and S. Narayanan, 2010; Wardrip-Fruin, 2009).

2. The conception of "story" or, alternatively, or "narrative" used by Lakoff and others (going all the way back to Roger C. Schank's work in the 70s) is very broad (that is, logically very weak). For instance, the reference narrative Lakoff uses in the paper mentioned above is a brief excerpt from the Wall Street Journal:

*The US Economy is on the verge of stumbling back into recession. The jobs picture is dismal, and the one-time boost from the stimulus package is almost over. The stimulus could have been better spent to buttress the economy through job growth.*

Our discussion, on the contrary, was focused (I think) on a much stronger characterization of story, basically using the term in the sense in which literary critics and narratologists have been using it (and, also, CS/AI researchers working in the automated story-telling tradition). In contrast to Lakoff and Narayanan, we will be able to rely upon a strong sense of narrative not by avoiding ordinary discourse—*Wall Street Journal* articles can still count as a corpus—but the story structures will not be derived from linguistic analysis or cues (in this case, metaphors); instead, the stories will be laid on top of the data by the users tagging them, telling us the stories that they perceive to be at play in any given networked interchange.

c) Visualization

In order to graph multiple interacting story structures as they unfold through time in a networked interaction, we must calculate what’s happening mathematically. The key is to use a complex enough model for calculation and visualization so as not to reduce the complexity while still making it viewable.

First, we model the physical human who can never been fully observed and known. It is just one of the layers in the model. Another is the "actant" who has a narratological existence and can act based on limited knowledge using narratological rules. Three more bring the layers up to five. The layers are following:

1. **Physical Layer:** This is the layer where all actants physically exist and interact. We assume that at any given moment in time the physical layer has a well-defined state, which is given as the collection of all the states of all humans involved. In our model, the physical versions of actants are nothing but boxes or containers that carry states. Physical versions of actants have two types of physical states:
   a. **Internal states:** These states are only about the actants themselves. For instance, being dead is a possible internal state for an actant. However, that actant's "container" does not cease to exist by being dead. Its container still exists but the state of that container is "not-living." Internal states can be emotional in nature—agents can be "angry" or "happy"—or of a physical type: "tired" or "sleepy."
   b. **Relational states:** These are the internal states that define one actant's "real" relation to and "real" feeling towards another actant. For instance, one actant can be the daughter of another, or one actant may hate another actant. Note that relational states are not necessarily reciprocal.
We call any change in the state of the physical layer a physical event in a story. For instance, "dying" is an event that turns a physical version of an actant from "living state" into a "non-living" state. Similarly "falling in love" is an event in which one of the physical states of an actant, an emotional one, turns from "neutral" to "love." Note that these events are all factual. These are events described as neutrally as possible so that the same physical event might constitute different kinds of occurrences in different plots. Other layers turn these physical versions of actants into more complicated beings.

2. **Expressive Layer:** This is the layer in which some of the states of the physical layer become expressed. An expression can be formalized in terms of a transformation from the physical layer to the expressive layer. A wide variety of forms of expressions can be created such as facial expressions, verbal expressions, or postural expressions. We do not consider all these forms nor how all expressions are produced. Instead, we focus on the narratological source of expressions. In terms of sources, we consider two types of expressions:

   a. **Expressions of internal states:** These expressions demonstrate only the internal states. For instance, an angry actant may have a frown, may shout, or may simply smile, like Claudius in Shakespeare's *Hamlet*. Shouting and frowning may clearly suggest that the actant is angry. On the other hand, smiling can hide the fact that the actant is angry internally. Note that expressions that hide internal states may not necessarily be intentionally hidden. The actants themselves may not know that they are, in fact, angry.

   b. **Expressions of relational states:** These are expressions of one actant's feeling towards or relationship to another. For instance, one actant who hates another may say "I hate you" or simply look annoyed. On the other hand, the actant can even act as if s/he likes the other person by hiding his/her true feelings. Even a relationship between two people can be expressed or denied. For instance, a father may tell his son "You are not my son." Again, these misleading expressions may not necessarily be intentional. It may be the case that the actant is angry, but it could also be that he does not know that he is the actual father. Expression itself does not change the physical fact that he is the father.

   As can be seen from this discussion, expressions may unintentionally or intentionally hide or demonstrate the facts. However, they do not change the facts about physical states. We call any change in expression an expression event. An expression event usually manifests a physical event. On the other hand, without any change in physical states, an expression may change.

3. **Observational Layer:** Actants can observe expressions, and observations can also be misleading about physical states and the meaning of expressions. We consider several types of observations.

   a. **Self observation (Self awareness):** This is the actants' observations of their own internal states. Note that this observation may affect the expression. An actant who is aware of his/her internal state can hide it or show it based on its narrational layer. On the other hand, an actant who is not aware of his/her internal state cannot deliberately choose to show it regardless of its narrational layer. Therefore, both narrational and observational layers affect the expressive layer.

   b. **Observations of expressions of others' internal states:** These observations are transformations that can also be misleading. For instance, based on their own narrational layers, two actants can observe/interpret the same expression differently. For instance, an angry expression can be observed as tired by one actant whose story is about love and as anger by another whose narrational layer involves competition.
c. **Observations of expressions of relational states:** These observations can also be misleading. For instance, an actant says "I love you," and, while one receiving actant can observe it as a manipulation, another receiving actant could observe it as a manifestation of a real love.

Just as we also have observational events, changes in observation will be defined as events. In such events, nothing in the physical or expressive layers need change; however, at least one actant changes its observation. A far-fetched example comes from the movie *6th Sense*, in which the character of Bruce Willis was not aware that he was already dead. The movie ends as he realizes that he is dead. This new observation did not change any existing facts, but we consider it to be an event since observation changes.

4. **Narrational Layer:** The key in our framework is this narrational layer. It affects all the other layers directly or indirectly. The actants place themselves in a story and act, observe, and express. We assume that everybody in society plays roles and acts according to these roles (Goffman1959). Each role may change through time. The actants' behaviors also depend upon their observation of which "story" they think they are participating in: in other words, different stories offer a finite number of roles, and specific roles suggest particular stories.

a. Actants see themselves as narratological characters, here called **archetypes**. Our archetypes will be extracted from stories (Schmidt 2001). These archetypes include but are not limited to heroes and heroines, villains, leaders, conquerers, rebels, outlaws, badboys; actants can play the roles of best friend, nice guy, confidant, charmer, boytoy, rogue, lost soul, wanderer, outcast, professor, absent-minded, organized, adventurer, daredevil, explorer, warrior, avenger, knight, boss, princess, seductress, dark lady, siren, spunky kid, girl next door, working girl, free spirit, comedian, darling, waif, innocent, orphan, librarian, know-it-all, bookworm, crusader, zealot, rescuer, nurturer, caregiver, wise woman, gossip, snob. It is also possible to use more abstract archetypes such as Hippocrates' Four Temperament Styles: worker, talker, watcher, and thinker. There are many other classifications (Cowden, 2000; Schmidt 2001).

b. **Plot:** This classification describes which "story" the actants think they are participating in. Based on classical narratology theory (Propp, 1973; Peinado, 2004), we consider a plot as a linear chain of observation-layer events. The reason we only consider observation-layer events is that physical- and expression-layer events may not necessarily be observed. That is also the reason why only the observational layer affects the narrational layer. Note that observation events are actant based. In other words, the same sequence of physical events can be observed as two different stories by two different actants. For instance, consider the Snow White story. The events in the story can be understood differently from the viewpoint of a bystander actant, the stepmother, Snow White, the Prince, or one of the seven dwarves.

Any change in plot or archetype is called an event in the narration. If an archetype change manifests itself in the observational layer, that may define a plot.

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1 Examples of classifications include the Enneagram classification: perfectionists, helpers, achievers, romantics, observers, questioners, adventurers, asserters, peacemakers. There are also others such as Jungian Characters: the Extrovert vs. the Introvert; people who rely upon Intuition Based Perception vs. Observation (Sence) Based Perception; those who judge by Thinking vs. those who judge by Feeling. Divari provides another classification: mover, observer, relater, energizer. The DISK Method classifies archetypes as dominant/driver (fast paced and task oriented), influencing/inspiring (fast paced and people oriented), stable/steady (slower paced and people oriented), compliant/correct (slower paced and task oriented).
5. **Action Layer**: The action layer is where actants act to create events. Events in the action layer can precipitate events in all other layers including the narration layer. In other words, the action layer controls and produces events in every layer—transitions from one state to another state—as the application of narratological story grammars within particular narrative genres. Research in narratology has shown that the unfolding of a narrative can be modeled via the application of a small set of functions occurring over time. Our work will extend this model by adapting the functions provided by Greimas's story grammar in order to represent changes in the states of networks based on the choices, actions, and reactions of individual actants.

One of the advantages of the framework of layers described above is that it clearly assigns different functions to different layers thus making it possible to develop a mathematical and computational representation that can be visualized using the Processing language (http://www.processing.org), for instance. We will represent the system as a graph where each vertex carries information about internal states and each edge information about relational states. Thus, each vertex and directed edge of the graph will present information about the physical, expressive, observational, narrational, and action layers corresponding to each actant.

More importantly for this proposal, we treat each layer as a black box. Each block box has a state and has inputs and outputs. What we call information is simply the current state of the box. Based on the inputs, the state of a box changes and outputs are created. Note that although each layer is represented by a separate black box, the layers are vertically connected since they share the same graph.

The key concept in our proposal is that graphing these layers and relations can allow us to visualize conflicting plots, roles, and feedback mechanisms that actually occur in human interaction.

- **Workplan**
Our narratology working group, sponsored by Texas A&M's IDHMC, will meet throughout the year, each year for three years, to read and discuss all the texts listed in the References section of the Appendix, as well as current research as it is made available. During each summer for three years, we will work with our graduate research assistants to investigate new developments in narratology, narratology and AI, humanistic visualization, graphic design, and interactive software development. During each year, we will write quarterly reports, to be made available publicly on the IDHMC Commentpress Site (http://idhmc.tamu.edu/commentpress), providing notes from discussions at our meetings and prototypes of development and design for CANE as well. We will present our work continuously at international and national narrative and digital humanities conferences in order to get feedback so that development is an iterative process, as we hope to do this summer at the “Narrative Matters” conference (http://www.aup.edu/news/special_events/narrative_matters.htm) to which we have applied. We will apply to present our work at the Digital Humanities Conferences sponsored annually by the Alliance of Digital Humanities Organizations (http://digitalhumanities.org/) and at the International Society for the Study of Narrative Conferences (http://narrative.georgetown.edu/). Here follow our milestones, divided into intellectual and technological tasks, with completion dates:
Intellectual

**Milestone 1:**
Create ontologies for network states, changes to those states (plot), and character types based upon the distillation of narrative terms, correlating them to intuitive keywords and icons that can be used in the CANE tool. Must be completed by the beginning of the second summer.

**Milestone 2:**
Create corpora from social network interactions and mark them up using the structure that is being developed for the CANE tool: tag them first with intuitive terms and icons, then create an XSLT that transforms them into the formal narratological structure to be graphed. Must be completed by the end of Summer 2.

**Milestone 3:**
Create visualizations of the tagged data (during Summer 3). Write a paper for publication about the meaning of those visualizations and what we can learn from them.

Technological

**Milestone 4:**
Create the software program, installing the icons and ontologies. Summer 1.

**Milestone 5:**
Create corpora for the software program and make those corpora available via a web service and API. Some of this will be done by Summer 2, some by Summer 3.

**Milestone 6:**
Make a web interface for using CANE as well as a place to download the tool; write documentation for the open source community—Summer 3.

• Final Product and Dissemination

Here follows a diagram of the CANE tool as displayed on an open laptop. The screen of the laptop displays in words—it would be a twitter stream or email exchange, but the network of relationships is as complex as that in any novel by Virginia Woolf. Those words enact relationships like those pictured off to the side. In asking people to interpret the networked interaction comprised of words circulated globally, our software tool will, we hope, make them more aware of other points of view and more able to think critically about the cultural determinants of their own. Offering our software for use is in fact a bit like offering free psychoanalysis: the analyst is quiet, letting the analysand talk, through which the analysand comes to hear him or herself: “I guess I’m imagining that you think like my mother.” This is of course much less personal: “I guess I imagined a co-worker in Beijing to be part of a romance plot, whereas that might not be his view of the story at all.” Ideally, it will inspire participants to investigate cultural storytelling, which plots predominate in which cultures, and why.

After people use the CANE tool to tag networked interactions, forming them into stories, they can, once others in their cohorts have participated, output a visualization of the narrative structure of the interaction, seeing at a glance which nodes (people identified with roles) are playing which parts in which particular stories. Figure 3 provides an example of an animation created in Processing that presents a networked structure resembling what people might see.
"Yes, of course, if it's fine tomorrow," said Mrs. Ramsay.
"But you'll have to be up with the lark," she added.
To her son these words conveyed an extraordinary joy,
as if it were settled, the expedition were bound to take place,
and the wonder to which he had looked forward, for years
and years it seemed, was, after a night's darkness and a day's
sail, within reach.

Figure 3: Interacting with the CANE Tool: Computer-Assisted Narrative Structure

Figure 4: Animated Visualizations using Processing (example from Aaron Koblin)

The IDHMC will host the website in which the tool is embedded, the place where people can
come to upload a corpus and tag stories, as well as the website distributing the software and
corpus of texts for 10 years after we have created this resource and then will pass it into the
Texas A&M University Library Repository.

We cannot pay groups of participants to use the tool—we do not wish to conduct empirical
research using it, but only to share research whenever it is produced. We will, however,
advertise the tool popularly, on Facebook, Twitter, etc., as well as through scholarly conferences
and publication. The work we do will constitute a major intervention in narratological analysis
of networked relationships, demonstrating the value of literary thinking in addressing and
understanding global conflict.
**NATIONAL ENDOWMENT FOR THE HUMANITIES**

Sample Budget Form (rev. 6/2011)

Applicant Institution: Texas A&M University
Project Director: Dr. Laura Mandell
Project Grant Period: 10/1/2012 - 9/30/2015

See online Budget Instructions (4-page PDF)

<table>
<thead>
<tr>
<th>Computation Details/Notes</th>
<th>(notes)</th>
<th>Year 1 (10/1/2012 - 9/30/2013)</th>
<th>(notes)</th>
<th>Year 2 (10/1/2013 - 9/30/2014)</th>
<th>(notes)</th>
<th>Year 3 (10/1/2014 - 9/30/2015)</th>
<th>Project Total</th>
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<td>Salary $16,667/mo (+2% COLA/yr)</td>
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<tr>
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</table>
LAURA C. MANDELL
CURRICULUM VITAE

Professional Address: Department of English, Texas A&M University, MS 4227, College Station, TX, 77843-4227. 513-560-7860; mandell@tamu.edu

EMPLOYMENT:
2011 to present: Professor, English, Director, Initiative for Digital Humanities, Media, and Culture, Texas A&M University
2008 to 2011: Professor, English, Miami University
1999 to 2008: Associate Professor, Miami University of Ohio
2004-present: Affiliate, Women Studies;
2007-present: Affiliate, Interactive Media Studies
1993 to 1999: Assistant Professor, Miami University of Ohio, Department of English.
1992-1993: Teacher (11th and 12th grades), Albuquerque Academy

OTHER APPOINTMENTS:
Director, ARC (Applied Research Consortium), 2011 to present
Director, 18thConnect (http://www.18thConnect.org), 2009 to present
Technological Editor, Romantic Circles (http://www.rc.umd.edu), 2009 to present
Chair, MLA Committee on Information Technology, 2009 to 2011
Associate Director, NINES (http://www.nines.org), 2007 to present
Director, Digital Humanities, (2008 to 2010), and Director of Research Initiatives (2006 to 2008) Interactive Media Studies Program, Miami University

INTERNET RESOURCES (peer-reviewed)
General Editor, The Poetess Archive (http://unixgen.muohio.edu/~poetess) and The Poetess Archive Journal (http://unixgen.muohio.edu/~poetess/PAJournal/); accepted after peer review by the Modern Language Association (MLA), the Networked Interface for Nineteenth-century Electronic Scholarship (NINES; http://www.nines.org), and Romantic Circles (http://www.rc.umd.edu)

BOOKS:
"Feeling Real: Melancholy, Romantic Poetry, and Print," book manuscript

BOOKS IN PROGRESS
"Breaking the Book," under contract for Blackwell Manifesto Series.

ARTICLES (recent):
"Brave New World: A Look at 18thConnect," Age of Johnson (forthcoming).
"Non-Consuming Relevance: the Grub Street Project," The Shape of Things, ed. Jerome McGann (Rice Univ. Press, 2010), and online: http://shapeofthings.org/papers/


AWARDS AND SCHOLARSHIPS (recent):


“18thConnect and Open-Access Full-Text,” Mellon Officer’s Grant for $41,000 awarded July 14, 2010.

NCSA (National Center for Supercomputing Applications / I-CHASS (Illinois Center for Computing in the Humanities, Arts, and Science), 200,000 hours of supercomputer time for 18thConnect for OCR development, 2009-2010. Announced 29 June 2009.

President’s Academic Enrichment Award (PAEA), Miami University, with Kerry Powell, Wiestse de Boer, and Charles Ganelin: $250,000 to start Miami’s Humanities Center (2008)

CACR (Center for Academic Computing Research, Miami Univ.) Grant, 2007-2008 ($4,000)

Assigned Research Appointment for The Poetess Archive – Paid Leave for Fall 2005 semester.

Ohio Learning Network, Principal Investigator for "Bringing Knowledge Closer through Web Interactivity," 2004-2005 ($20,000); CTE Grant for 2004-2005 ($5,000)
ERGUN AKLEMAN  
CURRICULUM VITAE  

Professional Address: C418 Langford Center, Department of, Texas A&M University  
MS 3137, College Station, Texas 77843-3137. 979-845-6599; ergun@tamu.edu  

ACADEMIC EMPLOYMENT:  
2008 to present: Professor, Department of Visualization, Texas A&M University  
2007 to 2008: Professor, Department of Architecture, Texas A&M University  
2001 to 2007: Associate Professor, Department of Architecture, Texas A&M U.  
1995-2001: Assistant Professor, Department of Architecture, Texas A&M U.  
1993-1999: Assistant Professor, Computer Science Department, Yildiz Technical U.  
1993-1995: Adjunct Professor, Computer Science Department, Marmara University  
1995-1995: Adjunct Professor, Computer Science Department, Bosphorous U.  
1989-1992: Graduate Research Assistant, GVU Laboratory, Georgia Tech  
1982-1984: Graduate Teaching Assistant, Istanbul Technical University  

COMMERCIAL ART EXPERIENCE:  
1978-Present: Professional Caricaturist, Cartoonist and Illustrator; Over 500  
caricatures, cartoons and illustrations have been published by various newspapers and  
magazines.  

EDUCATION:  
PhD in Electrical and Computer Engineering, 1992, Georgia Institute of Technology  
MS in Electrical and Computer Engineering, 1986, Georgia Institute of Technology  
BS in Electronic and Communication Engineering, 1979, Istanbul Technical Univ.  

INTERNET RESOURCES  
Research (http://www.viz.tamu.edu/faculty/ergun/research)  
Teaching (http://www.viz.tamu.edu/faculty/ergun/teaching)  
Artworks (http://www.viz.tamu.edu/faculty/ergun/artworks)  
Software (http://www.viz.tamu.edu/faculty/ergun/topology/download.html)  

PROCEEDINGS EDITOR:  
Hyperseeing Series (http://www.isama.org/hyperseeing/)  

AWARDS AND SCHOLARSHIPS (recent):  
NSF-CCF Grant, $386,663 Topological Graph Theory Revisited: With Applications in  
Computer Graphics, 09/01/2009 to 8/30/2012.  
NSF- ECS Grant, $204,822, Importance Based Visualization of Energy Networks via  

SELECTED SERVICE:  
Conference Chair SMI'2012, Panel & Paper Reviewer: NSF, SIGGRAPH, IEEE TVCG;
ARTICLES (selected):


STEFANO FRANCHI

Department of Hispanic Studies
Texas A&M University,
College Station, TX 77843-4237
Voice: (979) 862-2211
email: stefano@tamu.edu

Education

1997  Stanford University, Ph.D. in Philosophy
1984  Università di Bologna, Laurea in Filosofia, summa cum laude

Academic Positions

2011-present  Texas A&M University, Associate Research Professor
2006-2009  Texas A&M University, Visiting Associate Professor
2004-2006  The University of Auckland, Senior Lecturer (equivalent to Associate Prof. with tenure in the USA)
2000-2003  The University of Auckland, Lecturer (equivalent to Assistant Prof. in the USA)
1997-1999  Stanford University, Lecturer

Research interests

History and Philosophy of Artificial Intelligence and Cognitive Science, 20th Century European Philosophy, French Structuralism.

Other academic and professional experiences

Research Intern  Xerox Palo Alto Research Center (PARC), September 1990-July 1995. Research member of the Embedded Computation Area, directed by Prof. Brian Cantwell Smith.


Five Significant Publications


Five relevant publications


Graduate advisors

Brian Cantwell Smith, Xerox Palo Alto Research Center (PARC) and, by courtesy, Professor of of Computer Science, Stanford University (now Canada Research Chair in the Foundations of Information, University of Toronto); John Perry, Professor of Philosophy, Stanford University; Eckart Förster, Professor of Philosophy, Stanford University (now Professor of Philosophy at The Johns Hopkins University); Jean-Pierre Dupuy, Professor of Philosophy (by courtesy), Stanford University and École Polytechnique, Paris.

Current NSF Support

None
REFERENCES


---. Tale-Spin, an Interactive Program that Writes Stories. 1981.


7. Grant History

Narratology and Network: Understanding Conflict

CACR (Center for Academic Computing Research, Miami Univ.) Grant, 2007-2008, Laura Mandell ($4,000)
Ohio Learning Network, "Bringing Knowledge Closer through Web Interactivity," 2004-2005, Laura Mandell ($20,000)