

CURRICULUM VITAE

**NICHOLAS A. DIAKOPOULOS**

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**EDUCATION**

- Ph.D. in Computer Science** August 2009  
Georgia Institute of Technology, Atlanta, GA  
Advisor: Dr. Irfan Essa  
Emphasis on Human Computer Interaction (HCI) and computational media  
Dissertation Title: "Collaborative Annotation, Analysis, and Presentation Interfaces for Digital Video"
- M.S. in Computer Science** December 2005  
Georgia Institute of Technology, Atlanta, GA  
Research project involved designing novel interfaces to support photo collage authoring.
- Sc.B. (B.S.) in Computer Engineering: Multimedia Signal Processing** May 2002  
Brown University, Providence, RI

**ACADEMIC EXPERIENCE**

- Adjunct Assistant Professor – Drew University** Spring 2011  
Department of Mathematics and Computer Science  
Instructed a course on Human Interaction with Technology and Information ("Interaction Design")
- Computing Innovation Fellow – Rutgers University** 11/2009 – 10/2011  
School of Communication and Information, Department of Library and Information Science  
Research investigated computational journalism and its relation to commenting systems and the social media context of news and other events.
- Visiting Assistant Professor – University of Bergen** 8/2009 – 10/2009  
Department of Information and Media Studies  
Lectured and taught seminars and masters classes on the topics of computational journalism and collaborative production and authorship of media.
- Graduate Research Assistant – Georgia Tech** 2003 – 2009  
Advisor: Irfan Essa  
Research encompassed designing and building media authoring, tagging, and visualization interfaces to support enhanced media analysis and creation in image and video domains.
- Co-Instructor – Georgia Tech** Spring 2007, 2008  
Course Title: Computational Journalism  
Course Owner: Irfan Essa  
Designed new course syllabus including class structure and schedule, topics, and readings; designed assignments, critiques, and group projects for students; lectured and led discussion in class
- TI:GER – Technological Innovation: Generating Economic Results** Fall 2007 – Spring 2009  
TI:GER is an interdisciplinary entrepreneurship program involving MBA and Ph.D. students from Georgia Tech and JD students from Emory. Each team works on the Ph.D.'s research project to understand the market and business potential of the technology. The program includes an NSF IGERT fellowship for the Ph.D. student.

**Research Assistant – Graphics Lab: Exploratories Group – Brown University** 1/2000 – 1/2001  
Advisor: Andries van Dam  
Wrote applets using Java3D to illustrate and teach concepts involved with radiosity algorithms

**Undergraduate Teaching Assistant – Brown University** Fall 2000  
Course Title: Introduction to Computer Graphics  
Course Owner: Andries van Dam  
Held office hours; graded C++ programs; helped write lecture slides

**Undergraduate Teaching Assistant – Brown University** Spring 1999  
Course Title: Introduction to Scientific Computing  
Course Owner: John Savage  
Held office hours; graded C programs; designed and maintained course website

## WORK EXPERIENCE

**AAAS Mass Media Fellow, Sacramento Bee** Summer 2009  
Sacramento, CA  
Host: Scott Lebar, Assistant Managing Editor  
Reported on science topics of interest in the Sacramento region including both writing stories and programming interactive simulations and graphics

**Research Intern, Fuji-Xerox Palo Alto Laboratory (FXPAL)** Summer 2006  
Palo Alto, CA  
Host: Patrick Chiu  
Designed and evaluated a collaborative game for tagging images on a tabletop computer; Presented research and helped write paper and patent application

**Guest Researcher, Joanneum Research IIS** Summer 2004  
Graz, Austria  
Host: Georg Thallinger  
Conducted an extensive literature review on automatic object recognition algorithms; Prototyped and evaluated algorithms for a broadcast video object recognition system

**Guest Researcher, Fraunhofer IGD** Summer 2001, 8/2002 – 6/2003  
Darmstadt, Germany  
Host: Stephan Volmer  
Developed video processing technology for content based video retrieval and tracking; Presented results of research and wrote and published papers; Worked with students on various research projects

**Student Researcher, Fraunhofer CRCG** 12/2000 – 5/2002  
Providence, RI  
Advisor: Peter Stephenson  
Helped develop a new, efficient, and patented algorithm for line antialiasing; Helped write and publish the results of line antialiasing work; Researched more efficient ray-tracing methods as they relate to volume rendering

**Software Engineering Intern, Avid Technology: Film and Video Effects Group** Summer 2000  
Tewksbury, MA  
Cross platform development (NT and Mac) of a real time audio effects subsystem for the avid video editor; Large scale software engineering and re-engineering using design patterns



9. N. Diakopoulos and D. A. Shamma. Characterizing Debate Performance via Aggregated Twitter Sentiment. Conference on Human Factors in Computing Systems (CHI). April 2010. (22% acceptance rate)
10. K. Luther, N. Diakopoulos, A. Bruckman. Edits & Credits: Exploring Integration and Attribution in Online Creative Collaboration. Conference on Human Factors in Computing Systems (CHI) alt.chi. April, 2010.
11. N. Diakopoulos, S. Goldenberg, I. Essa. Videolyzer: Quality Analysis of Online Informational Video for Bloggers and Journalists. Conference on Human Factors in Computing Systems (CHI). April 2009. (24.5% acceptance rate)
12. N. Diakopoulos, K. Luther, I. Essa. Audio Puzzler: Piecing Together Time-Stamped Speech Transcripts with a Puzzle Game. In Proceedings of ACM Conference on Multimedia. October, 2008.
13. N. Diakopoulos, I. Essa. An Annotation Model for Making Sense of Information Quality in Online Video. International Conference on the Pragmatic Web (ICPW). September, 2008.
14. N. Diakopoulos, K. Luther, Y. Medynskiy, I. Essa. The Evolution of Authorship in a Remix Society. In Proceedings of Hypertext and Hypermedia. September 2007. (29% acceptance rate)
15. N. Diakopoulos, I. Essa. Videotater: An Approach for Pen-Based Digital Video Segmentation and Tagging. In Proceedings of User Interface Software and Technology (UIST). October 2006 (23% acceptance rate)
16. N. Diakopoulos, I. Essa. Mediating Photo Collage Authoring. In Proceedings of User Interface Software and Technology (UIST). October 2005. (19% acceptance rate)
17. N. Diakopoulos, I. Essa, and R. Jain. Content Based Image Synthesis. Conference on Image and Video Retrieval (CIVR). July 2004. pp 299-307. (17% acceptance rate)
18. S. Volmer and N. Diakopoulos. Contextually Meaningful Representation of Color for the Description of Visual Content. 6th International Conference on Visual Information Systems. September 2003.

#### **Refereed Posters, Extended Abstracts, Demonstrations, and Videos**

19. F. Kivran-Swaine, Sam Brody, Nicholas Diakopoulos, Mor Naaman. Of Joy and Gender: Emotional Expression in Online Social Networks. Conference on Computer Supported Cooperative Work (CSCW) Works in Progress. February, 2012.
20. N. Diakopoulos and M. Naaman. Topicality, Time, and Sentiment in Online News Comments. Conference on Human Factors in Computing Systems (CHI) Works in Progress. May, 2011.
21. Z. Yu, N. Diakopoulos, M. Naaman. The Multiplayer: Multi-perspective Social Video Navigation. In Proc. Addendum of User Interface Software Technology (UIST). October 2010.
22. N. Diakopoulos. Game-y Information Graphics. Conference on Human Factors in Computing Systems (CHI) Works in Progress. April 2010.
23. N. Diakopoulos, P. Chiu. PhotoPlay: A Collocated Collaborative Photo Tagging Game on a Horizontal Display. In Proceedings addendum of User Interface Software Technology (UIST). October 2007.
24. A. St. Clair, M. Fong, N. Diakopoulos, I. Essa. NARC: The News Article Revision Comparator. In Proceedings addendum of User Interface Software Technology (UIST). October 2007.
25. P. Chiu, J. Huang, M. Back, N. Diakopoulos, J. Doherty, W. Polak, X. Sun. mTable: Browsing Photos and Videos on a Tabletop System. ACM Multimedia Video Program. 2008.

#### **Workshop Papers**

26. N. Diakopoulos. Design Challenges in Playable Data. CHI Workshop on Gamification. May, 2011.

27. N. Diakopoulos, I. Essa. Modulating Video Credibility via Visualization of Quality Evaluations. WWW Workshop on Information Credibility on the Web (WICOW). April, 2010.
28. S. Yardi, K. Luther, N. Diakopoulos, A. Bruckman. Opening The Black Box: Four Views of Transparency in Remix Culture. CSCW Workshop on Tinkering, Tailoring, & Mashing: The Social and Collaborative Practices of the Read-Write Web. November, 2008.
29. K. Luther and N. Diakopoulos. Distributed Creativity. Creativity and Cognition Workshop on Supporting Creative Acts Beyond Dissemination. June 2007.
30. N. Diakopoulos, I. Essa. Supporting Personal Media Authoring . ACM Multimedia workshop on Multimedia for Human Communication (MHC). November 2005.
31. H. Rehatschek, N. Diakopoulos, G. Kienast, V. Hahn, T. Declerck. DIRECT-INFO: A Distributed Multimodal Analysis System for Media Monitoring Applications. European Workshop on the Integration of Knowledge, Semantics and Digital Media Technology (EWIMT 2004). November 2004.
32. N. Diakopoulos and S. Volmer. Temporally Tolerant Video Matching. SIG IR Multimedia Information Retrieval Workshop. August 2003.

### **Book Chapters**

33. N. Diakopoulos, M. Naaman, T. Yazdani, F. Kivran-Swaine. Social Media Visual Analytics for Events. In Social Media Modeling and Computing. Eds. Steven Hoi, Jiebo Luo, Susanne Boll, Dong Xu, Rong Jin, Irwin King. Springer Verlag. 2011.

### **Patents**

34. Peter Stephenson, Bruce Litow, and Nicholas Diakopoulos. Using line structure information to enhance line drawing in digital systems. US Patent # WO03052733. July 26, 2003
35. Nicholas Diakopoulos, Patrick Chiu. Photoplay: A Video Game for Tagging Photos on a Tabletop Display. US Patent #7,686,682 B2. March 30, 2010.

### **PRESENTATIONS AND INVITED TALKS**

1. N. Diakopoulos. Innovation and Computing in Journalism. Invited talk at Northwestern University, Evanston, IL, May 2011.
2. N. Diakopoulos. Innovation and Computing in Journalism. Invited talk at the University of Hong Kong, Hong Kong, March 2011.
3. N. Diakopoulos. What's the Story with Data? Invited talk for DIY Days NYC, Parsons New School, New York, NY, March 2011.
4. N. Diakopoulos. Towards Quality Discourse in Online News Comments. Invited talk for UNESCO Iraqi Study Tour, Rutgers University, New Brunswick, NJ, January 2011.
5. N. Diakopoulos. Discount Usability: Methods and Application. Invited Talk at the Associated Press (AP), New York, NY, December, 2010.
6. N. Diakopoulos. Playable Data. Invited Talk to the Journalism Research Group, University of Bergen, Bergen, Norway, September, 2010.
7. N. Diakopoulos. Social Media Visual Analytics for Journalistic Inquiry. Invited Talk to the Journalism Research Group, University of Bergen, Bergen, Norway, May, 2010.
8. N. Diakopoulos. Computational Journalism: Visual Analytics for Journalistic Inquiry. Invited Talk at American Public Media / Minnesota Public Radio, St. Paul, MN, May, 2010.
9. N. Diakopoulos. Computational Journalism: Visual Analytics for Journalistic Inquiry. Invited Talk at IBM Research, Cambridge, MA, April, 2010
10. N. Diakopoulos. Computational Journalism: Visual Analytics for Journalistic Inquiry. Invited Lecture to Computational Journalism Class, Georgia Tech, Atlanta, GA, April 2010

11. N. Diakopoulos. Computational Journalism: Commenting on the News. Invited Talk at University of Michigan, Ann Arbor, MI, March 2010.
12. N. Diakopoulos. Computational Journalism: Commenting on the News. Invited Talk at Michigan State University (MSU), East Lansing, MI, February 2010.
13. N. Diakopoulos. Computational Journalism: Commenting on the News. LIS Lunch Talk at Rutgers University, New Brunswick, NJ, February 2010.
14. N. Diakopoulos. Commenting on the News. Invited Talk to the Norwegian Online News Association (NONA), Bergen, Norway, October 2009.
15. N. Diakopoulos. Computational Media: Annotation, Interaction, Communication. Invited Talk at Fuji Xerox Palo Alto Laboratory (FXPAL), Palo Alto, CA, July 2009.
16. B. Stenger and N. Diakopoulos. Computational Journalism: Content, Interfaces, Services, Business Models. Presentation at OSCON, San Jose, CA, July 2009.
17. N. Diakopoulos. Computational Media: Annotation, Interaction, Communication. Invited Talk at Yahoo! Research, Sunnyvale, CA, May 2009.
18. N. Diakopoulos. Computational Media: Annotation, Interaction, Communication. Invited Talk at Telefónica Investigación y Desarrollo (TID), Barcelona, Spain, May 2009.
19. N. Diakopoulos. Computational Journalism. Presentation at The New York Times, New York, NY, April 2009.

## PROFESSIONAL AND ACADEMIC SERVICE

### Program Committees

North American Chapter of the Association for Computational Linguistics – Human Language Technologies (NAACL HLT), 2012  
 World Wide Web Conference, User Interfaces, Design, and Social Factors Track (WWW-IDS), 2012  
 Conference on Human Factors in Computing Systems (CHI), 2011  
 Symposium on User Interface Software and Technology (UIST), 2010  
 Symposium on Computation and Journalism (Program Co-Chair), 2008  
 Workshop on Search in Social Media (SSM) at the Conference on Information and Knowledge Management, 2008

### Conference Reviewer

Conference on Human Factors in Computing Systems (CHI), 2006 – 2012  
 Symposium on User Interface Software and Technology (UIST), 2004 – 2011  
 Computer Supported Cooperative Work (CSCW), 2008, 2010 – 2012  
 International Conference on Intelligent User Interfaces (IUI), 2010  
 International World Wide Web Conference (WWW), 2010  
 Symposium on Visual Analytics Science and Technology (VAST), 2010 – 2011  
 IEEE Information Visualization Conference (InfoVis), 2010 – 2011  
 ICMI International Conference on Multimodal Interfaces, 2007  
 ACM SIGGRAPH, 2007 – 2008  
 EuroVis, 2011

### Memberships

Association for Computing Machinery (ACM), 2006 – present  
 Institute of Electrical and Electronics Engineers (IEEE), 2002 – present  
 National Association of Science Writers (NASW), 2009  
*Tau Beta Pi* national engineering honor society  
*Phi Beta Kappa* national honor society

### University

Intel Opportunity Scholars Mentor (Georgia Tech, 2003 – 2008)  
Graduate Student Council Faculty Recruiting Liaison (Georgia Tech, 2007)  
Graduate Student Council CS Ph.D. Recruiting Liaison (Georgia Tech, 2008)

## **STUDENT MENTORING**

### **Summer 2011**

Ritvik Mathur, Assessment of sentiment analysis methods for microblog texts

### **Spring 2011**

Rushi Amin, Design and development of a multi-perspective video player in HTML5

### **Summer 2010**

Tayebeh Yazdani, Novelty and relevance assessments in social media

Zihao Yu, Design and evaluation of a multi-perspective video player

### **Spring 2010**

Eirik Stavelin, Computational Journalism

### **Fall 2009 – Spring 2010**

Ian Jablonowski, Framework for human computation

### **Fall 2008**

Sweta Vajjhala, Interfaces for organizing blog and news comments

### **Summer 2007**

Michael Hansen, CityState: a facebook application for citizen journalism

### **Fall 2006 – Spring 2007**

Aaron St. Claire and Matthew Fong, Visualizing news change over time (UROC 3<sup>rd</sup> place winner)

### **Fall 2006**

James Gaines, Ambient visualization of videos from YouTube

### **Fall 2005 – Spring 2006**

Dana Van Devender and Aaron St. Claire, Gas price visualization (IOS poster contest winner)

### **Fall 2004 – Spring 2005**

Dana Van Devender, Daniel Hernandez, and Aaron St. Claire, Video collages

### **Spring 2004**

Gina Lee and Dana Van Devender, Proceduralized video editing

## **PERSONAL INTERESTS AND HOBBIES**

Latin dancing and performance (Salsa, Bachata), Photography, Improv Theater, Travel

## **LANGUAGES**

Native English, Conversational German (written and spoken), Intermediate Spanish (written and spoken), basic Norwegian (written and spoken), dabbler in Greek, Arabic, French

## **CITIZENSHIP**

United States of America