

CURRICULUM VITAE

**NICHOLAS A. DIAKOPOULOS**

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**EDUCATION**

- Ph.D. in Computer Science** August 2009  
Georgia Institute of Technology, Atlanta, GA
- M.S. in Computer Science** December 2005  
Georgia Institute of Technology, Atlanta, GA
- Sc.B. (B.S.) in Computer Engineering: Multimedia Signal Processing** May 2002  
Brown University, Providence, RI

**ACADEMIC EXPERIENCE**

**Northwestern University**

- Associate Professor, School of Communication, Dept of Communication Studies 9/2020 – present  
Associate Professor (by courtesy), Dept of Computer Science 9/2020 – present
- Assistant Professor, School of Communication, Dept. of Communication Studies 8/2017 – 8/2020  
Assistant Professor (by courtesy), Dept. of Computer Science 5/2018 – 8/2020

**University of Maryland, College Park**

- Assistant Professor, College of Journalism 8/2014 – 7/2017  
Affiliate Assistant Professor, College of Information Studies 10/2014 – 7/2017  
Affiliate Assistant Professor, Department of Computer Science 7/2015 – 7/2017

**Columbia University, School of Journalism**

- Tow Fellow 7/2013 – present

**University of Bergen, Department of Information and Media Studies**

- Associate Professor II 11/2015 – present  
Adjunct Research Fellow 2/2012 – 12/2014  
Visiting Assistant Professor 8/2009 – 10/2009

**City University of New York, School of Journalism**

- Research Fellow 11/2011 – 6/2012

**Rutgers University, School of Communication and Information**

- Computing Innovation Fellow 11/2009 – 10/2011

**Drew University, Department of Mathematics and Computer Science**

- Adjunct Assistant Professor Spring 2011

**Georgia Institute of Technology, School of Interactive Computing**

- Research Assistant 2003 – 2009  
Co-Instructor, Computational Journalism Spring 2007, 2008  
TI:GER – Technological Innovation: Generating Economic Results Fall 2007 – Spring 2009

**Brown University, Computer Science Department**

- Research Assistant – Graphics Lab 1/2000 – 1/2001  
Undergraduate Teaching Assistant Fall 2000

Undergraduate Teaching Assistant

Spring 1999

**WORK EXPERIENCE****Faculty Fellow, The Washington Post**

9/2019 – 12/2019

Washington, DC

Working with the computational political journalism R&D Lab to develop automated and algorithmic approaches to covering the 2020 US Elections.

**Principal, Interaction Foundry**

10/2011 – present

New York, NY

Founded a consultancy for user interface and experience design with a focus on data visualization and social media analytics; Working across web and mobile platforms to deliver evidence-based designs for visual analytic interfaces

**Faculty Fellow, Chartbeat**

6/2016 – 7/2016

New York, NY

Worked with the data science team to do research on news novelty and attention patterns

**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

**Programming Intern, Astro-Med Inc.**

6/1997 – 8/1999

West Warwick, RI

Programmed Windows user applications and extensible ActiveX components in MFC; Worked with other designers on various GUIs for a label design program

## GRANTS AND GIFTS

CAREER: Computational Journalism: Integrating Algorithms and People in the Production of News Information – \$550,000 as PI from the National Science Foundation (2019-2024)  
 REU Supplement – \$16,000 (2021)  
 Algorithmic Accountability and Journalism – \$25,000 gift from Facebook Research (2018)  
 Assessing the Role of Platform Algorithms in Shaping News Attention – \$500,000 as PI from the National Science Foundation (2017-2020)  
 Algorithms List – \$5,000 as PI from Rutgers Institute for Information Policy & Law (2016-2017)  
 Algorithmic Accountability – \$280,000 as PI from Tow Center via Knight Foundation (2015-2017)  
 Revisiting Segregation through Computational History – \$25,000 from the Future of Information Alliance (FIA) (2015)  
 CommentIQ – \$35,000 from the Knight Foundation (2014-2015)  
 Detection and Presentation of Community and Global Event Content from Social Media Sources. – \$250,000 as Co-PI from the NSF (2010 – 2013)  
 Computing Innovation Fellow – \$267,500 from the NSF via CRA (2009 – 2011)

## AWARDS AND HONORS

Tankard Book Award for “Automating the News: How Algorithms are Rewriting the Media” (AEJMC, 2020)  
 Best Paper Honorable Mention (CHI Conference, 2012, 2016, 2019 – Top 5% of papers)  
 Research Communicator Impact Award (University of Maryland, College Park, 2016)  
 AAAS Mass Media Fellow (AAAS, 2009 – 10% acceptance rate)  
 NSF IGERT Fellow (Integrative Graduate Education and Research Traineeship) 2007 – 2009  
 PhD Student Research Excellence Commendation (SIC, Georgia Tech, 2008)  
 Foley Scholars Finalist (GVU Center, Georgia Tech, 2008)  
 Presidential Fellowship recipient (Georgia Tech, 2003 – 2008)  
 NSF Graduate Research Fellowship Honorable Mention (2002, 2004)  
 Graduated Magna Cum Laude (top 20% Brown University, 2002)  
 Outstanding Student Award in Computer Engineering (Brown University, 2002)

## PUBLICATIONS

### Books

1. N. Diakopoulos. Automating the News: How Algorithms are Rewriting the Media. *Harvard University Press*. June, 2019. **(Tankard Book Award Winner)**

2. Data-Driven Storytelling. Eds. N. Riche, C. Hurter, N. Diakopoulos, S. Carpendale. *A.K. Peters / CRC Press*. March, 2018.
3. B. Shneiderman, C. Plaisant, M. Cohen, S. Jacobs, N. Elmqvist, N. Diakopoulos. Designing the User Interface (DTUI). 6<sup>th</sup> Edition. *Pearson*. May, 2016.

### Journal Articles

4. N. Diakopoulos, D. Trielli, and G. Lee. Towards Understanding and Supporting Journalistic Practices Using Semi-Automated News Discovery Tools. *Proceedings of the ACM (PACM): Human-Computer Interaction (CSCW)*. 2021.
5. J. Bandy and N. Diakopoulos. More Accounts, Fewer Links: How Algorithmic Curation Impacts Media Exposure in Twitter Timelines. *Proceedings of the ACM (PACM): Human-Computer Interaction (CSCW)*. 2021.
6. H. Dambanemuya and N. Diakopoulos. Auditing the Information Quality of News-Related Queries on the Alexa Voice Assistant. *Proceedings of the ACM (PACM): Human-Computer Interaction (CSCW)*. 2021.
7. D. Gómez Zará and N. Diakopoulos. Characterizing Communication Patterns between Audiences and Newsbots. *Digital Journalism*. 2020.
8. N. Diakopoulos and D. Johnson. Anticipating and Addressing the Ethical Implications of Deepfakes in the Context of Elections. *New Media & Society*. 2020.
9. C. Peterson-Salahuddin and N. Diakopoulos. Negotiated Autonomy: The Role of Social Media Algorithms in Editorial Decision Making. *Media and Communication*. 2020.
10. D. Trielli and N. Diakopoulos. Partisan Search Behavior and Google Results in the 2018 U.S. Midterm Elections. *Information, Communication and Society*. 2020.
11. N. Diakopoulos. Computational News Discovery: Towards Design Considerations for Editorial Orientation Algorithms in Journalism. *Digital Journalism*. 2020.
12. M. Díaz and N. Diakopoulos. Whose Walkability?: Challenges in Algorithmically Measuring Subjective Experience. *Proceedings of the ACM (PACM): Human-Computer Interaction: Volume 3, Issue CSCW*. November, 2019.
13. N. Hagar and N. Diakopoulos. Optimizing Content with A/B Headline Testing: Changing Newsroom Practices. *Media and Communication*. 7 (1), 2019.
14. D. Park, S. Kim, J. Lee, J. Choo, N. Diakopoulos, N. Elmqvist. ConceptVector: Text Visual Analytics via Interactive Lexicon Building using Word Embedding. *Transactions on Visualization and Computer Graphics (TVCG)*. 2018.
15. K. Assmann, N. Diakopoulos. Negotiating Change: Audience Engagement Editors as Newsroom Intermediaries. *#ISOJ Journal*. April, 2017.
16. N. Diakopoulos and M. Koliska. Algorithmic Transparency in the News Media. *Digital Journalism*. 2016.
17. T. Lokot and N. Diakopoulos. News Bots: Automating News and Information Dissemination on Twitter. *Digital Journalism*. 2016.
18. E. Momeni, C. Cardi, N. Diakopoulos. A Survey on Assessment and Ranking Methodologies for User-Generated Content on the Web. *ACM Computing Surveys*. 48 (3). 2016.
19. N. Diakopoulos. Picking the NYT Picks: Editorial Criteria and Automation in the Curation of Online News Comments. *#ISOJ Journal*. April, 2015.
20. N. Diakopoulos. Algorithmic Accountability: Journalistic Investigation of Computational Power Structures. *Digital Journalism*. 2015.

21. Elgesem, D., L. Steskal and N. Diakopoulos. The Structure and Content of the Discourse on Climate Change in the Blogosphere: The Big Picture. *Environmental Communication*. 2015.
22. J. Hullman and N. Diakopoulos. Visualization Rhetoric: Framing Effects in Narrative Visualization. *Trans. on Visualization and Computer Graphics*. 2011. (26% acceptance rate)
23. N. Diakopoulos, P. Stephenson. Anti-Aliased Lines Using Run-Masks. *Computer Graphics Forum*, vol. 24, no. 2, 2005.

### Peer-Reviewed Archival Publications

24. P. Nanayakkara, J. Hullman, and N. Diakopoulos. Unpacking the Expressed Consequences of AI Research in Broader Impact Statements. *Proceedings of the Conference on AI, Ethics, and Society (AIES)*. 2021
25. Y. Wang and N. Diakopoulos. Journalistic Source Discovery: Supporting The Identification of News Sources in User Generated Content. *Proc. Human Factors in Computing Systems (CHI)*. 2021.
26. Y. Wang and N. Diakopoulos. The Role of New York Times Picks in Comment Quality and Engagement. *HICSS Track on Mediated Conversation*. 2021.
27. J. Bandy and N. Diakopoulos. Auditing News Curation Systems: A Case Study Examining Algorithmic and Editorial Logic in Apple News. *Proc. International Conference on Web and Social Media (ICWSM)*. 2020.
28. D. Trielli and N. Diakopoulos. Search as News Curator: The Role of Google in Shaping Attention to News Information. *Proc. Conference on Human Factors in Computing Systems (CHI)*, May, 2019 (24% acceptance rate, 5% rate of award) **(Best Paper Honorable Mention)**
29. S. Sachar, N. Diakopoulos. Changing Names in Online News Comments at the New York Times. *Proc. International Conference on Web and Social Media (ICWSM)*. May, 2016. (17% acceptance rate)
30. D. Park, S. Sachar, N. Diakopoulos, and N. Elmqvist. Supporting Comment Moderators in Identifying High Quality Online News Comments. *Proc. Conference on Human Factors in Computing Systems (CHI)*. May, 2016. (23% acceptance rate, 5% rate of award) **(Best Paper Honorable Mention)**
31. A. Olteanu, C. Castillo, N. Diakopoulos, K. Aberer. Comparing Events Coverage in Online News and Social Media: The Case of Climate Change. *Proc. International Conference on Web and Social Media (ICWSM)*. May, 2015. (19% acceptance rate)
32. N. Diakopoulos. The Editor's Eye: Curation and Comment Relevance on the New York Times. *Proc. Conference on Computer Supported Cooperative Work (CSCW)*. March 2015. (28% acceptance rate)
33. J. Hullman, N. Diakopoulos, E. Momeni, E. Adar. Content, Context, and Critique: Commenting on a Data Visualization Blog. *Proc. Conference on Computer Supported Cooperative Work (CSCW)*. March 2015. (28% acceptance rate)
34. N. Diakopoulos and A. Zubiaga. Newsworthiness and Network Gatekeeping on Twitter: The Role of Social Deviance. *Proc. International Conference on Weblogs and Social Media (ICWSM)*. June, 2014.
35. N. Diakopoulos, A. Zhang, D. Elgesem, A. Salway. Identifying and Analyzing Moral Evaluation Frames in Climate Change Blog Discourse. *Proc. International Conference on Weblogs and Social Media (ICWSM)*. June, 2014.
36. T. Gao, J. Hullman, E. Adar, B. Hecht, N. Diakopoulos. NewsViews: An Automated Pipeline for Creating Custom Geovisualizations for News. *Proc. Conference on Human Factors in Computing Systems (CHI)*. 2014. (23% acceptance rate)



54. D. Johnson and N. Diakopoulos. What To Do About Deepfakes. *Communications of the ACM (CACM)*. 2021.
55. N. Diakopoulos. Artificial Intelligence and Journalism. *The Encyclopedia of Journalism* 2<sup>nd</sup> Edition. Ed. Gregory Borchard. Sage. 2020.
56. N. Diakopoulos. Transparency. *Oxford Handbook of Ethics and AI*. Eds. Markus Dubber, Frank Pasquale, Sunit Das. May, 2020.
57. N. Diakopoulos. Towards a Design Orientation on Algorithms and Automation in News Production. *Digital Journalism*. November, 2019.
58. S. Lewis, M. Broussard, N. Diakopoulos, A. Guzman, R. Abebe, M. Dupagne, C-H. Chuan. Artificial Intelligence and Journalism. *Journalism & Mass Communication Quarterly*. 2019.
59. C-G Lindén, H. Tuulonen, A. Bäck, N. Diakopoulos, M. Granroth-Wilding, L. Haapanen, L. Leppänen, M. Melin, T. Moring, M. Munezero, S. Sirén-Heikel, C. Södergård, H. Toivonen. News Automation: The Rewards, Risks and Realities of ‘Machine Journalism’. WAN IFRA Report. March, 2019.
60. N. Diakopoulos. The Algorithms Beat. *Data Journalism Handbook*. Eds. Liliana Bornegru and Jonathan Gray. November, 2018.
61. M. Koliska and N. Diakopoulos. Disclose, Decode and Demystify: An Empirical Guide to Algorithmic Transparency. *The Routledge Handbook of Developments in Digital Journalism Studies*. Eds. Scott Eldridge II and Bob Franklin. October, 2018
62. N. Diakopoulos, D. Trielli, J. Stark, S. Mussenden. I Vote For – How Search Informs Our Choice of Candidate. In *Digital Dominance: Implications and Risks*. Eds. M. Moore and D. Tambini. June, 2018.
63. N. Diakopoulos. Ethics in Data-Driven Visual Storytelling. *Data-Driven Storytelling*. Eds. N. Riche, C. Hurter, N. Diakopoulos, S. Carpendale. A.K. Peters / CRC Press. March, 2018.
64. S. Drucker, S. Huron, R. Kosara, J. Schwabish, N. Diakopoulos. Communicating Data to an Audience. *Data-Driven Storytelling*. Eds. N. Riche, C. Hurter, N. Diakopoulos, S. Carpendale. A.K. Peters / CRC Press. March, 2018.
65. N. Diakopoulos. Enabling Accountability of Algorithmic Media: Transparency as a Constructive and Critical Lens. Towards glass-box data mining for Big and Small Data. Eds. Tania Cerquitelli, Daniele Quercia, Frank Pasquale. Springer. 2017.
66. N. Diakopoulos. Computational Journalism and the Emergence of News Platforms. The Routledge Companion to Digital Journalism Studies. Eds. Scott Eldridge II and Bob Franklin. August, 2016.
67. N. Diakopoulos. Accountability in Algorithmic Decision Making: A view from Computational Journalism. *Communications of the ACM (CACM)*. Feb, 2016.
68. N. Diakopoulos. Algorithmic Accountability Reporting: On the Investigation of Black Boxes. Tow Center for Digital Journalism at Columbia University. January 2014.
69. N. Diakopoulos. Cultivating the Landscape of Innovation in Computational Journalism. Tow-Knight Center for Entrepreneurial Journalism at CUNY. April 2012.
70. 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.

### Peer Reviewed Non-Archival Publications

71. P. Nanayakkara, N. Diakopoulos, J. Hullman. Anticipatory Ethics and the Role of Uncertainty. *Workshop on Navigating the Broader Impacts of AI Research @ NeurIPS*. 2020

72. J. Bandy and N. Diakopoulos. #TulsaFlop: A Case Study of Algorithmically-Influenced Collective Action on TikTok. *FAccTRec Workshop on Responsible Recommendation*. September, 2020.
73. H. Dambanemuya and N. Diakopoulos. “Alexa, what is going on with the impeachment?” Evaluating smart speakers for news quality. *Proc. Computation + Journalism Symposium*. March, 2020.
74. N. Diakopoulos, M. Dong, L. Bronner, J. Bowers. Generating Location-Based News Leads for National Politics Reporting. *Proc. Computation + Journalism Symposium*. March, 2020.
75. D. Trielli and N. Diakopoulos. How Journalists Can Systematically Critique Algorithms. *Proc. Computation + Journalism Symposium*. March, 2020.
76. Y. Wang and N. Diakopoulos. Readers’ Perceptions of Personalized News Articles. *Proc. Computation + Journalism Symposium*. March, 2020.
77. N. Hagar, J. Bandy, D. Trielli, Y. Wang. N. Diakopoulos. Defining Local News: A Computational Approach. *Proc. Computation + Journalism Symposium*. March, 2020.
78. J. Bandy and N. Diakopoulos. Getting to the Core of Algorithmic News Aggregators: Applying a Crowdsourced Audit to The Trending Stories Section of Apple News. *Proc. Computation + Journalism Symposium*. February, 2019.
79. D. Trielli and N. Diakopoulos. Defining the Role of User Input Bias in Personalized Platforms. *Proc. ICWSM Workshop on Algorithmic Personalization and News*. 2018.
80. Y. Wang and N. Diakopoulos. Considerations for Article-Level Personalization of News Content. *Proc. ICWSM Workshop on Algorithmic Personalization and News*. 2018.
81. D. Trielli, J. Stark and N. Diakopoulos. Algorithm Tips: A Resource for Algorithmic Accountability in Government. *Proc. Computation + Journalism Symposium*. September, 2017.
82. J. Stark and N. Diakopoulos. Using Baselines for Algorithm Audits. *European Conference on Data and Computational Journalism*. July, 2017.
83. J. Stark and N. Diakopoulos. Towards Editorial Transparency in Computational Journalism. *Proc. Computation + Journalism Symposium*. September, 2016.
84. N. Diakopoulos, D. Elgesem, A. Salway, A. Zhang, K. Hofland. Compare Clouds: Visualizing Text Corpora to Compare Media Frames. *Proc. IUI Workshop on Visual Text Analytics*. 2015.
85. Yelena Mejova, Amy X. Zhang, Nicholas Diakopoulos and Carlos Castillo. Controversy and Sentiment in Online News. *Proc. Symposium on Computation + Journalism*. Poster track. Oct, 2014.
86. N. Diakopoulos, Stephen Cass, and Joshua Romero. Data-Driven Rankings: The Design and Development of the IEEE Top Programming Languages News App. *Proc. Symposium on Computation + Journalism*. Oct, 2014.
87. N. Diakopoulos, A. Zhang, A. Salway. Visual Analytics of Media Frames in Online News and Blogs. *IEEE InfoVis Workshop on Text Visualization*. 2013.
88. N. Diakopoulos. Visual Analytics of Blog Corpora for Communication Scholars. *IEEE InfoVis workshop on Interactive Visual Text Analytics*. October 2012.
89. A. Salway, N. Diakopoulos, D. Elgesem. Visualizing Information Diffusion and Polarization with Key Statements. *International Conference on Weblogs and Social Media (ICWSM) workshop on Social Media Visualization*. June, 2012.
90. 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.
91. N. Diakopoulos. Design Challenges in Playable Data. *CHI Workshop on Gamification*. May, 2011.
92. 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.



93. Z. Yu, N. Diakopoulos, M. Naaman. The Multiplayer: Multi-perspective Social Video Navigation. In Proc. Addendum of User Interface Software Technology (UIST). October 2010.
94. N. Diakopoulos. Game-y Information Graphics. Conference on Human Factors in Computing Systems (CHI) Works in Progress. April 2010.
95. N. Diakopoulos, I. Essa. Modulating Video Credibility via Visualization of Quality Evaluations. WWW Workshop on Information Credibility on the Web (WICOW). April, 2010.
96. 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.
97. 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.
98. 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.
99. 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.
100. K. Luther and N. Diakopoulos. Distributed Creativity. Creativity and Cognition Workshop on Supporting Creative Acts Beyond Dissemination. June 2007.
101. N. Diakopoulos, I. Essa. Supporting Personal Media Authoring . ACM Multimedia workshop on Multimedia for Human Communication (MHC). November 2005.
102. 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.
103. N. Diakopoulos and S. Volmer. Temporally Tolerant Video Matching. SIG IR Multimedia Information Retrieval Workshop. August 2003

### **Selected Works in Public Media**

104. J. Bandy and N. Diakopoulos. Amping up algorithmic transparency to govern online platform power. April, 2021. The Hill.
105. N. Diakopoulos. The Ethics of Predictive Journalism. Columbia Journalism Review. April, 2020.
106. N. Diakopoulos. The journalistic newsfeed: editorial values and algorithms. Columbia Journalism Review. December, 2019.
107. N. Diakopoulos. Apple News is excluding local newsrooms from its coveted traffic bump. Columbia Journalism Review. September, 2019.
108. N. Diakopoulos and D. Johnson. How could deepfakes impact the 2020 U.S. elections? Nieman Lab. June, 2019.
109. N. Diakopoulos. Artificial intelligence-enhanced journalism offers a glimpse of the future of the knowledge economy. The Conversation. June, 2019.
110. N. Diakopoulos. Audit suggests Google favors a small number of major outlets. Columbia Journalism Review. May, 2019.
111. N. Diakopoulos. What is machine learning and why should I care? Columbia Journalism Review. April, 2019.
112. N. Diakopoulos. Boosting local news with data journalism and automation. Columbia Journalism Review. January, 2019.

113. N. Diakopoulos. What a report from Germany teaches us about investigating algorithms. *Columbia Journalism Review*. January, 2018
114. N. Diakopoulos. An algorithmic nose for news. *Columbia Journalism Review*. November, 2018.
115. N. Diakopoulos. Bots and the future of automated accountability. *Columbia Journalism Review*. September, 2018.
116. N. Diakopoulos. There are a lot of rote tasks a good AI interviewer could do for you. *Columbia Journalism Review*. June, 2018
117. N. Diakopoulos. Reporting in a Machine Reality: Deepfakes, misinformation, and what journalists can do about them. *Columbia Journalism Review*. May, 2018
118. N. Diakopoulos. The bots beat: How not to get punked by automation. *Columbia Journalism Review*. April, 2018.
119. D. Trielli and N. Diakopoulos. How to report on algorithms even if you're not a data whiz. *Columbia Journalism Review*. May, 2017.
120. N. Diakopoulos and S. Friedler. How to Hold Algorithms Accountable. *MIT Technology Review*. November, 2016.
121. N. Diakopoulos. BuzzFeed's pro tennis investigation displays ethical dilemmas of data journalism. *Columbia Journalism Review*. November, 2016.
122. D. Trielli and N. Diakopoulos. How Google Shapes the News You See About the Candidates. *Slate*. November, 2016.
123. D. Trielli, S. Mussenden, J. Stark, N. Diakopoulos. Googling Politics: How the Google issue guide on candidates is biased. *Slate*. June, 2016.
124. N. Diakopoulos. We need to know the algorithms the government uses to make important decisions about us. *The Conversation*. May, 2016.
125. J. Stark and N. Diakopoulos. Uber seems to offer better service in areas with more white people. That raises some tough questions. *Washington Post*. March, 2016.
126. N. Diakopoulos. How to Hold Governments Accountable for the Algorithms They Use. *Slate*. Feb. 2016
127. D. Trielli, S. Mussenden, N. Diakopoulos. Why Google Search Results Favor Democrats. *Slate*. Dec. 2015
128. N. Diakopoulos, S. Cass. Top Programming Languages Ranking. *IEEE Spectrum*. 2014, 2015, 2016
129. N. Diakopoulos. How Uber Surge Pricing Really Works. *Washington Post*. April, 2015
130. N. Diakopoulos. Bots on the Beat. *Slate*. April, 2014
131. N. Diakopoulos. Sex, Violence, and Autocomplete Algorithms. *Slate*. August, 2013
132. N. Diakopoulos. Rage Against the Algorithms. *The Atlantic*. October, 2013

### Patents

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

### SELECTED PRESENTATIONS AND INVITED TALKS

1. *Invited Talk*. University of Minnesota. "How Algorithmic Intermediaries Shape Attention to News" (virtual). February, 2021.

2. *Invited Talk*. University of Maryland Human Computer Interaction Lab. “How Algorithmic Intermediaries Shape Attention to News” (virtual). February, 2021.
3. *Invited Panelist*. Journalism AI Festival. (virtual). December, 2020.
4. *Invited Talk*. University of Sheffield. “Automating the News” England (virtual). December, 2020.
5. *Invited Talk*. Christ Nagar College. “Global Summit on Artificial Intelligence in Journalism” India (virtual). November, 2020.
6. *Invited Talk*. Truth and Trust Online (TTO) Conference. “Confronting the Ethical Implications of Synthetic Media” Virtual. October, 2020.
7. *Invited Talk*. Yale ISP. “Anticipating and addressing the ethical implications of deepfakes in the context of elections” New Haven, CT (virtual). July, 2020.
8. *Invited Talk*. University of Michigan. “The Role of Algorithmic Intermediaries in Shaping Attention to News” Ann Arbor, MI. March, 2020
9. *Invited Talk*. University of Missouri Reynolds Institute. “Automating the News” Columbia, MO. Feb, 2020
10. *Invited Keynote*. European Broadcasting Union (EBU) News Assembly. “Doing Journalism in a Synthetic Media Reality” Paris, France. November, 2019.
11. *Invited Talk*. Journalism of Things Conference. “Automating the News: How Algorithms are Rewriting the Media” Stuttgart, Germany. November, 2019.
12. *Invited Panelist*. Global Investigative Journalism Conference. “Algorithmic Accountability” Hamburg, Germany. September, 2019.
13. *Invited Keynote*. Machines + Media Conference. “Automating the News: How Algorithms are Rewriting the Media” New York, NY. May, 2019.
14. *Invited Talk*. Stanford University, Brown Institute for Media Innovation. “Automating the News: How Algorithms are Rewriting the Media” Palo Alto, CA. April, 2019.
15. *Invited Talk*. University of Illinois – Chicago. “Algorithmic Intermediaries and Attention to News Information” Chicago, IL. Feb, 2019.
16. *Invited Keynote*. UK Conference of Science Journalists. “Algorithmic Bias and Accountability” London, UK. October, 2018.
17. *Invited Panelist*. Yale University. Media Freedom and Information Access Clinic. “Algorithmic Accountability” New Haven, CT. October, 2018
18. *Invited Respondent*. Northwestern University. Law and STEM Forum. September, 2018.
19. *Invited Keynote*. SciCAR Conference. “How Newsrooms are Adapting to Advances in Artificial Intelligence” Dortmund, Germany. September, 2018.
20. *Invited Keynote*. ICWSM Workshop on News and Public Opinion. “News Bots: Agents of Information or Automated Sociopaths?” Palo Alto, CA. June, 2018.
21. *Invited Talk*. SKUP Conference. “Algorithmic Accountability Reporting” Oslo, Norway. April, 2018.
22. *Invited Talk*. Watching in the Media Conference. “Neural Networks and Automated Content Synthesis” Bergen, Norway. March, 2018.
23. *Invited Talk*. Cardiff University. “Algorithmic Accountability Reporting” Cardiff, Wales. January, 2018
24. *Invited Panelist*. Computing Community Consortium (CCC) Annual Symposium. “Data and Algorithms” Washington, DC. October, 2017
25. *Invited Keynote*. KDD Workshop on Data Science + Journalism. “Journalistic Data Mining” Halifax, Canada. August, 2017.

26. *Invited Keynote*. European Investigative Journalism and Dataharvest Conference. “The Power of Algorithms” Mechelen, Belgium. May, 2017.
27. *Invited Panelist*. NYU Algorithms and Explanations Conference. “Explainability in Context – Media” New York, NY. April, 2017
28. *Invited Panelist*. International Journalism Festival. “Collaborating with Algorithms” Perugia, Italy. April, 2017.
29. *Invited Talk*. University of Cambridge. “Algorithmic Accountability and Transparency: A View from Computational Journalism” Cambridge, England. March, 2017.
30. *Invited Talks*. University of Helsinki. “Computational Journalism and Computational Thinking” and “News Bots Design Workshop” Helsinki, Finland. March, 2017.
31. *Invited Talk*. Hans Bredow Institute for Media Research. “The Algorithmic Newsboys: Google and Facebook in the 2016 US Elections” Hamburg, Germany, December, 2016.
32. *Invited Talk*. Columbia University Communication PhD Colloquium. “Algorithmic Accountability and Transparency in the News Media” New York, New York, November 2016.
33. *Invited Talk*. Salzburg Academy on Media and Global Change. “Algorithmic Accountability and Transparency in the News Media” Salzburg, Austria, July 2016.
34. *Panelist*. International Communication Association (ICA), “Automation as an Editorial Act” Fukuoka, Japan, June 2016.
35. *Invited Talk*. Human Computer Interaction Lab Symposium, “Algorithmic Transparency in the User Interface” College Park, MD, May, 2016.
36. *Invited Keynote*. Nordic Data Journalism Conference (NODA). “Algorithmic Accountability and Transparency” Helsinki, Finland, April 2016.
37. *Invited Keynote*. Social News on the Web (SNOW). “Enhancing Journalistic Curation of Online News Comments” Montreal, Canada, April 2016.
38. *Invited Panelist*. International Journalism Festival. “Can a robot do my job?” and “Creating community: how effective curation of interactive spaces can bring readers together”. Perugia, Italy, April, 2016.
39. *Panelist*. NICAR Conference. “Algorithmic Accountability: Case Studies from the Field”, Panel, Denver, CO, March, 2016
40. *Invited Talk*. Max Planck Institute. “Algorithmic Accountability and Transparency: A View from Computational Journalism” Saarbruecken, Germany. Feb. 2016.
41. *Invited Panelist*. New America Foundation. “The Tyranny of Algorithms” Washington, DC. Dec. 2015
42. *Invited Talk*. Virginia Tech. “Algorithmic Accountability and Transparency: A View from Computational Journalism” Blacksburg, VA. Dec. 2015
43. *Invited Talk*. Hacks / Hackers Berlin. “Algorithmic Accountability” Berlin, Germany. July 2015.
44. *Invited Panelist*. IRE Conference. “Investigating Black Boxes” Philadelphia, PA. June 2015.
45. *Invited Talk*. Appalachian State University. “Algorithmic Accountability: Developing a Critical Stance Towards the Algorithms in our Lives” Boone, NC. April 2015.
46. *Invited Talk*. NICAR Conference. “From words to pictures: Text analysis and visualization” Atlanta, GA, March 5, 2015
47. *Invited Talk*. New Practices in Journalism at Sciences Po. “Anatomy of a Robot Journalist” Paris, France, December 8, 2014.
48. *Invited Panelist*. World Economic Forum. “Accountability in a Data-Driven World” New York, October 22, 2014.

49. *Invited Talk*. HCI Group at University of Illinois (UIUC). “Computational Journalism: From Tools to Algorithmic Accountability” Urbana, IL, September 2014.
50. *Invited Talk*. Online News Association (ONA) Annual Conference. “Algorithms, Journalism, Democracy” Chicago, IL, September 2014.
51. *Invited Talk*. University of Maryland Campus Visualization Partnership Lecture Series. “The Virtues of Text in Data Visualization” College Park, MD, September 2014
52. *Panelist*. AEJMC Conference. “Apps, Algorithms, and Platforms: Emerging Objects of Digital Journalism” Montreal, Canada, August 2014.
53. *Invited Talk*. Quantifying Journalism: Data, Metrics, and Computation Conference. “Algorithmic Accountability Reporting: On the Investigation of Black Boxes.” New York, NY, May 2014
54. *Invited Keynote*. REACTION Workshop on Computational Journalism. “Computational Journalism: From Tools to Algorithmic Accountability.” Porto, Portugal. April 2014.
55. *Invited Keynote*. Journalism Interactive Conference. “Algorithmic Accountability Reporting: On the Investigation of Black Boxes.” College Park, MD, April 2014
56. *Panelist*. NICAR Conference. “Holding Algorithms Accountable.” February 2014
57. *Invited talk*. UNESCO International Conference on the “Memory of the World in the Digital Age: Digitization and Preservation” Vancouver, BC, September 2012.
58. *Invited Talk*. “Innovation and Computing in Journalism” Northwestern University, Evanston, IL, May 2012.
59. *Invited Talk*. “Innovation and Computing in Journalism” University of Hong Kong, Hong Kong, March 2011.
60. *Invited Talk*. “What’s the Story with Data?” DIY Days NYC, Parsons New School, New York, NY, March 2011.
61. *Invited Talk*. “Towards Quality Discourse in Online News Comments” UNESCO Iraqi Study Tour, Rutgers University, New Brunswick, NJ, January 2011.
62. *Invited Talk*. “Discount Usability: Methods and Application” Associated Press (AP), New York, NY, December, 2010.
63. *Invited Talk*. “Playable Data” Journalism Research Group, University of Bergen, Bergen, Norway, September, 2010.
64. *Invited Talk*. “Social Media Visual Analytics for Journalistic Inquiry” Journalism Research Group, University of Bergen, Bergen, Norway, May, 2010.
65. *Invited Talk*. “Computational Journalism: Visual Analytics for Journalistic Inquiry” American Public Media / Minnesota Public Radio, St. Paul, MN, May, 2010.
66. *Invited Talk*. “Computational Journalism: Visual Analytics for Journalistic Inquiry” IBM Research, Cambridge, MA, April, 2010
67. *Invited Talk*. “Computational Journalism: Commenting on the News” University of Michigan, Ann Arbor, MI, March 2010.
68. *Invited Talk*. “Computational Journalism: Commenting on the News” Michigan State University (MSU), East Lansing, MI, February 2010.
69. *Invited Talk*. N. Diakopoulos. “Computational Media: Annotation, Interaction, Communication” Fuji Xerox Palo Alto Laboratory (FXPAL), Palo Alto, CA, July 2009.
70. *Panelist*. “Computational Journalism: Content, Interfaces, Services, Business Models” OSCON, San Jose, CA, July 2009.
71. *Invited Talk*. “Computational Media: Annotation, Interaction, Communication” Yahoo! Research, Sunnyvale, CA, May 2009.

72. *Invited Talk*. “Computational Media: Annotation, Interaction, Communication” Telefónica Investigación y Desarrollo (TID), Barcelona, Spain, May 2009.
73. *Invited Talk*. “Computational Journalism” The New York Times, New York, NY, April 2009.

## PROFESSIONAL AND ACADEMIC SERVICE

### Community and Conference Leadership Activities

- Program Chair. Computation + Journalism Symposium, 2008, 2013, 2014, 2019
- Co-Organizer. HCI and Journalism Workshop @ CHI, 2019
- Co-Organizer. Algorithmic Personalization and News Workshop @ ICWSM, 2018
- Workshops Co-Chair. International Conference on Web and Social Media (ICWSM), 2016
- Co-Organizer. Dagstuhl Workshop on Data-Driven Storytelling, 2016
- Program Chair. Workshop on Algorithmic Transparency in the Media, 2015

### Program Committees

- Computation + Journalism Symposium, 2015, 2016, 2017, 2020, 2021
- International Conference on Web and Social Media (ICWSM) Program Committee: 2014, 2015;  
Senior Program Committee: 2016, 2017, 2018, 2019, 2020
- Conference on Fairness, Accountability, and Transparency (FAT\*), 2018, 2019, 2020
- European Data and Computational Journalism Conference, 2017, 2018, 2019, 2020
- Conference on Truth and Trust Online (TTO), 2019
- Workshop on News Media Content Analysis and Automated Report Generation @ EAACL, 2021
- Workshop on Misinformation, Computational Fact-Checking and Credible Web @ WWW, 2019
- Journalism, Misinformation, and Fact Checking @ WWW Conference, 2018
- Data Science, Journalism, and Media Workshop @ KDD, 2018
- News and Public Opinion Workshop (NECO) @ ICWSM, 2016, 2017, 2018, 2019, 2020
- Social News on the Web, 2017
- Social Media in the Newsroom Workshop @ ICWSM, 2016
- EuroVis Conference on Visualization, 2016
- Workshop on Social Multimedia and Storytelling, 2014
- Empirical Methods in Natural Language Processing, 2014
- Joint InfoVis and ONA workshop on NewsVis: Mobile and Breaking News, 2013
- 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
- InfoVis Workshop on Storytelling with Data, 2011
- Conference on Human Factors in Computing Systems WIP (CHI), 2011
- Symposium on User Interface Software and Technology (UIST), 2010
- Workshop on Search in Social Media (SSM) @ CIKM, 2008

### Journal / Proceedings Editorial Positions

- Digital Journalism, Editorial Board, 2014—
- Proceedings of the ACM: Human-Computer Interaction, Associate Chair for CSCW, 2019—2020
- Associate Chair for Proc. Conference on Human Factors in Computing Systems (CHI), 2020

### Policy

- US-ACM, Working Group on Algorithmic Accountability (2016)
- US-ACM, Technology Policy Committee, 2016—

### Grant Reviewing

- European Research Council (ERC), 2020
- National Science Foundation (NSF), ad-hoc and panel, 2020
- Corporation for Public Broadcasting, 2019

Ethics and Governance of AI Initiative, AI and the News Challenge, 2018  
 Open Society Foundation, Information Program, 2017  
 Brown Institute for Media Innovation, Columbia University, 2013 – 2017  
 Knight Foundation, News Challenge, 2015  
 National Endowment for the Humanities, Digging into Data, 2016

### **Conference, Journal, and Book Reviewing**

Big Data & Society, 2017  
 Columbia University Press, 2020, 2021  
 Communications of the ACM (CACM), 2020  
 Computers in Human Behavior, 2016  
 Computer Supported Cooperative Work (CSCW), 2008, 2010 – 2021  
 Conference on Human Factors in Computing Systems (CHI), 2006 – 2021  
 Digital Journalism, 2014 – 2021  
 EuroVis, 2011 – 2016, 2020  
 ICMI International Conference on Multimodal Interfaces, 2007  
 IEEE Computer Graphics and Applications, 2015  
 IEEE Information Visualization Conference (InfoVis), 2010 – 2013, 2016, 2018  
 IEEE Pervasive Computing, 2014  
 Information Visualization, 2014  
 International Communication Association (ICA) Journalism Studies Division, 2017, 2018, 2019  
 Information, Communication, & Society, 2019, 2020  
 International Conference on Intelligent User Interfaces (IUI), 2010  
 International Journal of Press/Politics, 2014, 2019  
 International World Wide Web Conference (WWW), 2010  
 JASIST, 2020  
 Journalism, 2015 – 2016  
 Journal of Business Ethics, 2020  
 Journalism and Mass Communication Quarterly, 2019  
 Journalism Practice, 2017  
 Journalism Studies, 2018 – 2019  
 Journalism Theory, Practice, Criticism, 2014  
 Journal of Communication, 2015, 2017 – 2021  
 Journal of Information Policy, 2018  
 Journal of Computer Mediated Communication, 2014, 2015, 2017, 2019  
 Minds and Machines, 2020  
 Media & Communication, 2019 – 2021  
 New Media & Society, 2015 – 2020  
 New Review of Hypermedia, 2014  
 Nordicom Review, 2020  
 Oxford University Press, 2019  
 Political Communication, 2016  
 Public Opinion Quarterly, 2019  
 SIGGRAPH, 2007 – 2008  
 Social Media & Society, 2016  
 Symposium on User Interface Software and Technology (UIST), 2004 – 2012  
 Symposium on Visual Analytics Science and Technology (VAST), 2010, 2011, 2012, 2018  
 Transactions on Computer-Human Interaction, 2014, 2019, 2020  
 Transactions on Social Computing, 2017  
 Transactions on Visualization and Computer Graphics, 2015

### **Memberships**

Association for Education in Journalism and Mass Communication (AEJMC), 2019 – present

Association for Computing Machinery (ACM), 2006 – present  
 International Communication Association (ICA), 2016 – present  
 Institute of Electrical and Electronics Engineers (IEEE), 2002 – 2010  
 National Association of Science Writers (NASW), 2009  
*Tau Beta Pi* national engineering honor society  
*Phi Beta Kappa* national honor society

### **Advisory Boards**

News Angler Project, University of Bergen, International Advisory Board, 2018—present  
 Media Futures Center, University of Bergen, Work Package Advisory Board, 2021—present

### **University**

Technology and Social Behavior (TSB) Director of Graduate Studies (Northwestern, 2020-2024)  
 Technology and Social Behavior Admissions Committee (Northwestern, 2018, 2019, 2020, 2021)  
 Artificial Intelligence @ NU Committee (Northwestern, 2020-2021)  
 Department of Communication Studies Faculty Search Committee (Northwestern, 2019)  
 Master of Science in Artificial Intelligence (MSAI) Internal Advisory Board (Northwestern, 2018)  
 Computer Science + Journalism Faculty Search Committee (Northwestern, 2018)  
 Media, Technology, and Society Admissions Committee (Northwestern, 2018)  
 Campus Visualization Partnership (UMD, Division of IT, 2014—2016)  
 Ph.D. Committee (UMD, College of Journalism, 2014—2017)  
 Program, Courses, and Curricula Committee (UMD, College of Journalism, 2015—2017)  
 Research Council (UMD Campus, 2015—2017)  
 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)

## **COURSES TAUGHT**

Computational Communication, Winter 2021  
 MTS 525, Northwestern University

Knight Lab Studio, Winter 2019, Winter 2020  
 COMM 395, JOUR 342/442, EECS 397/497, Northwestern University

Storytelling with Data Visualization, Fall 2018  
 COMM 395, Northwestern University

Algorithmic News Media, Spring 2018, Winter 2020  
 COMM 395 (undergraduate) and MTS 525 (graduate), Northwestern University

Computational Journalism, Spring 2016, 2017  
 JOUR 479V / 779V, University of Maryland

Storytelling with Data Visualization, Spring 2015, Fall 2015, 2016  
 JOUR 479D / 779D, University of Maryland

Interactive Multimedia Storytelling, Fall 2014  
 JOUR 354 / 654, University of Maryland

Human Interaction with Technology and Information, Spring 2011  
 CSCI 10, Drew University

## **DISSERTATION COMMITTEES**



Committee. Mark Diaz. Toward Better Bias: Evaluating Algorithmic Social Bias in Context. Northwestern University. Technology and Social Behavior.

Committee. Scott Cambo. Model Positionality: A Novel Machine Learning Framework for Subjective Target Concepts. Northwestern University. Technology and Social Behavior.

Committee. Miriam Boon. Computational approaches to detection of narrative frames in news. Northwestern University. Technology and Social Behavior. Completed 2019.

Committee. Karin Assmann. Who's in charge? Audience Inclusion or Intrusion? Journalists' Arrangements with Their Audiences. University of Maryland, College Park. College of Journalism. Completed 2019.

Committee. Boya Xu. Understanding Sticky News: Analyzing the Effect of Content Appeal and Social Engagement for Sharing Political News Online. University of Maryland, College Park. College of Journalism. Completed 2018.

Committee. Cody Buntain. Discovering Credible Events in Near Real Time from Social Media Streams. University of Maryland, College Park. Department of Computer Science. Completed 2016.

Committee. Tetyana Lokot. Augmented Dissent: The Affordances of ICTs for Citizen Protest (A Case Study of the Ukraine Euromaidan Protest of 2013-2014). University of Maryland, College Park. College of Journalism. Completed 2016.

Advisor (external). Eirik Stavelin. Computational Journalism: When Journalism Meets Programming. University of Bergen, Norway. Department of Information Science and Media Studies. Completed 2014.

## **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