

David Ayman Shamma

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RESEARCH STATEMENT

My work sits at the intersection of multimedia, human-computer interaction, and social dynamics. My research is focused on understanding people and their interactions with video, images and other types of multimedia in various contexts from social communication, information retrieval, to artistic expression; this involves examining how media is created and captured, how media are stored and organized, and how media annotated and reused.

EDUCATION

- 2001–2005 **Northwestern University**
Doctor of Philosophy, Department of Computer Science.
Advisor/Committee Chair: Kristian Hammond
Committee: Don Norman, Larry Birnbaum, Shannon Bradshaw
Subjects: Artificial Intelligence, Multimedia Information Retrieval, HCI.
- 1996–1999 **The University of West Florida**
Masters of Science, Department of Computer Science.
- 1991–1996 **The University of West Florida**
Bachelor of Science, Department of Computer Science.

EXPERIENCE

- 9/16–present *Principal Investigator & Senior Scientist*
Distributed & Interactive Systems Group,
Centrum Wiskunde & Infomatica (CWI).
Amsterdam, Netherlands.
- 10/15–4/16 *Director of Research*,
HCI Research Group, **Yahoo! Labs**.
Science Lead, **Flickr**.
San Francisco, California.
- 7/12–9/15 *Senior Research Manager*,
HCI Research Group, **Yahoo! Labs**.
Scientific Liaison, **Flickr**.
San Francisco, California.
- 2/14–5/14 *Visiting Senior Research Fellow*,
Keio-NUS Cute Center, **National University of Singapore**..
Singapore.
- 7/06–7/12 *Research Scientist*
Internet Experiences Group, **Yahoo! Resaerch**.
Brickhouse. **Yahoo!**.
Media and Community Group, **Yahoo! Research Berkeley**.
San Francisco Bay Area, California.
- 8/05–6/06 *Post-Doc Research Associate*. **Intelligent Information Laboratory**,
Department of Electrical Engineering and Computer Science.
Northwestern University. Evanston, Illinois.
- 12/99–8/01 *Visiting Researcher*. **Center for Mars Exploration**,

- NASA Ames Research Center, Moffett Field, California.
 4/98–8/01 *Visiting Faculty Research Associate.*
Institute for Human and Machine Cognition,
 The University of West Florida, Pensacola, Florida.
 8/96–4/98 *Graduate Assistant.* **Institute for Human and Machine Cognition,**
 The University of West Florida, Pensacola, Florida.
 1/93–7/96 *Macintosh Network Administrator.* **Department of Visual Arts,**
 Pensacola State College, Pensacola, Florida.
 9/90–9/92 *Graphic Designer, Network Administrator.* **PAHCOM,**
 The Professional Association of Health Care Office Managers, Pensacola, FL.

TEACHING

- National **Visiting Studio Professor.** (2014)
 University of Singapore *Digital Wellness for Children*, School of Design & Environment
 (Advised Student Projects in Studio, Gave Design Critiques)
- National **Visiting Lecturer.** (2014)
 University of Singapore *Data Visualization*, Communications & New Media
 (Guest Lecture and ran class project on Geographic Photo Visualization)
- National **Visiting Lecturer.** (2014)
 University of Singapore *Introduction to Communications, New Media & Society*,
 Communications & New Media
 (Guest lecture on Digital Privacy and Expectation)
- Northwestern **Adjunct Professor.** (2005)
 University *News and News Media*, Medill School of Journalism.
 (revised department syllabus)
- Northwestern **Teaching Assistant.** (2002–2004)
 University *Semantics & Natural Language Understanding*
 Dr. Larry Birnbaum
- Northwestern **Teaching Assistant.** (2003–2004)
 University *Practicum in Intelligent Information Systems*
 Dr. Kristian Hammond
- Pensacola **Instructor.** (1996–1999)
 State College *Computer Graphics I, II, & III* (revised department syllabus),
Multimedia Seminar (wrote department syllabus).
- The University **Instructor.** (1998–1999)
 of West Florida *Computer Graphics Applications.*
 (wrote department syllabus)
- The University **Teaching Assistant.** (1996–1997)

of West Florida *Introduction To Artificial Intelligence*.
 Dr. Ken Ford (1996) & Dr. Patrick Hayes (1997).
 Contest Organizer for Lego Robotics Competition.

JOURNAL ARTICLES

- B. Thomee, D. A. Shamma, G. Friedland, B. Elizalde, K. Ni, D. Poland, D. Borth, and L.-J. Li. Yfcc100m: The new data in multimedia research. *Commun. ACM*, 59(2):64–73, Jan. 2016
- B. Thomee, I. Arapakis, and D. A. Shamma. Finding social points of interest from georeferenced and oriented online photographs. *ACM Trans. Multimedia Comput. Commun. Appl.*, 12(2):36:1–36:23, Jan. 2016
- L.-J. Li, D. A. Shamma, X. Kong, S. Jafarpour, R. Van Zwol, and X. Wang. CelebrityNet: A social network constructed from large-scale online celebrity images. *ACM Transactions on Multimedia*, 12(1):3:1–3:22, Aug. 2015
- M. de Sá, D. A. Shamma, and E. F. Churchill. Live mobile collaboration for video production: design, guidelines, and requirements. *Personal and Ubiquitous Computing*, 18(3):693–707, 2014
- D. A. Shamma. Autonomous expressionism: a framework for installation directed network arts. *International Journal of Arts and Technology*, 2(1):62–81, 2009
- C. Albrecht-Buehler, B. Watson, and D. A. Shamma. Visualizing live text streams using motion and temporal pooling. *IEEE Computer Graphics and Applications*, pages 52–59, 2005
- A. J. Cañas, K. M. Ford, J. Coffey, T. Reichherzer, R. Carff, D. A. Shamma, and M. Breedy. Herramientas para construir y compartir modelos de conocimiento basados en mapas conceptuales. *Revista de Informática Educativa*, 13(2):145–158, 2000
- C. Turner, D. A. Shamma, and S. Dobbs. Things that help us think: Mobile robots in ai education. In *IEEE Transactions on Education*, volume CD-ROM Supplement Edition. IEEE Computer Society, 1998

CONFERENCE PUBLICATIONS

- J. A. Guerra-Gomez, C. Boulanger, S. Kairam, and D. A. Shamma. Identifying best practices for visualizing photo statistics and galleries using treemaps. In *Proceedings of the International Working Conference on Advanced Visual Interfaces, AVI '16*, pages 60–63, New York, NY, USA, 2016. ACM
- C. Boulanger, S. Bakhshi, J. J. Kaye, and D. A. Shamma. The design, perception, and practice of tablet photography. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems, DIS '16*, pages 84–95, New York, NY, USA, 2016. ACM
- Barry Brown, Frank Bentley, Saeideh Bakhshi, David A. Shamma. Ephemeral Photowork: Understanding the Mobile Social Photography Ecosystem. In *Proceedings of the 10th International AAAI Conference on Web and Social Media, ICWSM '16*. AAAI. 2016..
- Lyndon Kennedy, David A. Shamma. How Content, Community, and Engagement Affect the Life Cycles of Online Photo Sharing Groups. In *Proceedings of the 10th International AAAI Conference on Web and Social Media, ICWSM '16*. AAAI. 2016. .
- S. Bakhshi, D. A. Shamma, L. Kennedy, Y. Song, P. de Juan, and J. J. Kaye. Fast, cheap, and good: Why animated gifs engage us. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, CHI '16*, pages 575–586, New York, NY, USA, 2016. ACM
- S. Kairam, J. J. Kaye, J. A. Guerra-Gomez, and D. A. Shamma. Snap decisions?: How users, content, and aesthetics interact to shape photo sharing behaviors. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, CHI '16*, pages 113–124, New York, NY, USA, 2016. ACM
- R. A. Krishna, K. Hata, S. Chen, J. Kravitz, D. A. Shamma, L. Fei-Fei, and M. S. Bernstein. Embracing error to enable rapid crowdsourcing. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, CHI '16*, pages 3167–3179, New York, NY, USA, 2016. ACM

- F. R. Bentley, J. J. Kaye, D. A. Shamma, and J. A. Guerra-Gomez. The 32 days of christmas: Understanding temporal intent in image search queries. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, CHI '16, pages 5710–5714, New York, NY, USA, 2016. ACM
- D. A. Shamma, L. Kennedy, J. Li, B. Thomee, H. Jin, and J. Yuan. Finding weather photos: Community-supervised methods for editorial curation of online sources. In *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*, CSCW '16, pages 86–96, New York, NY, USA, 2016. ACM
- J. Bernd, D. Borth, C. Carrano, J. Choi, B. Elizalde, G. Friedland, L. Gottlieb, K. Ni, R. Pearce, D. Poland, K. Ashraf, D. A. Shamma, and B. Thomee. Kickstarting the commons: The yfcc100m and the yli corpora. In *Proceedings of the 2015 Workshop on Community-Organized Multimodal Mining: Opportunities for Novel Solutions*, MMCommons '15, pages 1–6, New York, NY, USA, 2015. ACM
- K. Cheng, L. He, X. Meng, D. A. Shamma, D. Nguyen, and A. Thangapalam. Cozymaps: Real-time collaboration on a shared map with multiple displays. In *Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services*, MobileHCI '15, pages 46–51, New York, NY, USA, 2015. ACM
- M. Kafsi, H. Cramer, B. Thomee, and D. A. Shamma. Describing and understanding neighborhood characteristics through online social media. In *Proceedings of the 24th International Conference on World Wide Web*, WWW '15, pages 549–559, Republic and Canton of Geneva, Switzerland, 2015. International World Wide Web Conferences Steering Committee
- S. Bakhshi, D. A. Shamma, L. Kennedy, and E. Gilbert. Why we filter our photos and how it impacts engagement. In *Proceedings of the 9th International AAAI Conference on Web and Social Media*, ICWSM '15. AAAI, 2015
- S. Bakhshi, P. Kanuparth, and D. A. Shamma. Understanding online reviews: Funny, cool or useful? In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*, CSCW '15, pages 1270–1276, New York, NY, USA, 2015. ACM
- B. Thomee, J. G. Moreno, and D. A. Shamma. Who's time is it anyway?: Investigating the accuracy of camera timestamps. In *Proceedings of the ACM International Conference on Multimedia*, MM '14, pages 909–912, New York, NY, USA, 2014. ACM
- S. Bakhshi, P. Kanuparth, and D. A. Shamma. If it is funny, it is mean: Understanding social perceptions of yelp online reviews. In *Proceedings of the 18th International Conference on Supporting Group Work*, GROUP '14, pages 46–52, New York, NY, USA, 2014. ACM
- Y. Zhang, R. Zimmermann, L. Zhang, and D. A. Shamma. Points of interest detection from multiple sensor-rich videos in geo-space. In *Proceedings of the ACM International Conference on Multimedia*, MM '14, pages 861–864, New York, NY, USA, 2014. ACM
- S. Bakhshi, D. A. Shamma, and E. Gilbert. Faces engage us: Photos with faces attract more likes and comments on instagram. In *Proceedings of the 32Nd Annual ACM Conference on Human Factors in Computing Systems*, CHI '14, pages 965–974, New York, NY, USA, 2014. ACM
- J. J. Kaye, M. McCuiston, R. Gulotta, and D. A. Shamma. Money talks: Tracking personal finances. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, CHI '14, pages 521–530, New York, NY, USA, 2014. ACM
- Lyndon Kennedy and David A. Shamma. “Unknown Unknowns in Data and Discovery.” Data Design for Personalization: Current Challenges and Emerging Opportunities (D2D 2014), KDD Workshop, New York, February 2014.
- P. Groth and D. A. Shamma. Spinning data: Remixing live data like a music DJ. In *CHI '13 Extended Abstracts on Human Factors in Computing Systems*, CHI EA '13, pages 3063–3066, New York, NY, USA, 2013. ACM

- J. Cortez, D. A. Shamma, and L. Cai. Device communication: A multi-modal communication platform for internet connected televisions. In *EuroITV '12: Proceedings of the 10th international interactive conference on Interactive TV & Video*, July 2012
(Best Paper Nominated)
- D. A. Shamma, L. Kennedy, and E. F. Churchill. Watching and talking: Media content as social nexus. In *Proceeding of the 2nd ACM international conference on Multimedia Information Retrieval*, Hong Kong, June 2012. ACM
- D. A. Shamma, L. Kennedy, and E. F. Churchill. Viral actions: Predicting video view counts using synchronous sharing behaviors. In *ICWSM 11: Proceedings of the International Conference on Weblogs and Social Media Data*, Barcelona, Spain, July 2011. AAAI Press
- D. A. Shamma, L. Kennedy, and E. F. Churchill. Peaks and persistence: modeling the shape of microblog conversations. In *Proceedings of the ACM 2011 conference on Computer supported cooperative work*, CSCW '11, pages 355–358, New York, NY, USA, 2011. ACM
- M. de Sá, J. Antin, D. Shamma, and E. F. Churchill. Mobile augmented reality: video prototyping. In *Proceedings of the 2011 annual conference extended abstracts on Human factors in computing systems*, CHI EA '11, pages 1897–1902, New York, NY, USA, 2011. ACM
- J. Yew, D. A. Shamma, and E. F. Churchill. Knowing funny: Genre perception and categorization in social video sharing. In *Proceedings of the 2011 annual conference on Human factors in computing systems*, CHI '11, pages 297–306, New York, NY, USA, 2011. ACM
- J. Yew and D. A. Shamma. Know your data: Understanding implicit usage versus explicit action in video content classification. In *IS&T/SPIE Electronic Imaging*, January 2011
- E. F. Churchill, O. Goen, and D. A. Shamma. Augmented ethnography: designing a sensor-based toolkit for ethnographers. In *Proceedings of the 22nd Conference of the Computer-Human Interaction Special Interest Group of Australia on Computer-Human Interaction*, OZCHI '10, pages 416–417, New York, NY, USA, 2010. ACM
- D. A. Shamma, R. M. Sheppard, and J. Schible. Human-to-dancer interaction: Designing for embodied performances in a participatory installation. In *DIS '10: Proceedings of the 8th ACM conference on Designing interactive systems*, pages 356–359, Århus, Denmark, 2010. ACM
- D. A. Shamma, L. Kennedy, and E. F. Churchill. Tweetgeist: Can the twitter timeline reveal the structure of broadcast events? In *CSCW Horizons*, 2010
- D. A. Shamma, L. Kennedy, and E. F. Churchill. Tweet the debates: Understanding community annotation of uncollected sources. In *WSM '09: Proceedings of the international workshop on Workshop on Social Media*, Beijing, China, 2009. ACM
(Best Paper Nominated)
- D. A. Shamma, E. F. Churchill, N. Bobb, and M. Fukuda. Spinning online: a case study of internet broadcasting by djs. In *C&T '09: Proceedings of the fourth international conference on Communities and technologies*, pages 175–184, New York, NY, USA, 2009. ACM
- D. A. Shamma, M. Bastea-Forte, N. Joubert, and Y. Liu. Enhancing online personal connections through the synchronized sharing of online video. In *CHI'08 extended abstracts on Human factors in computing systems*, pages 2931–2936. ACM, 2008
- Y. Liu, D. A. Shamma, P. Shafton, and J. Yang. Zync: the design of synchronized video sharing. In *DUX 2007: Proceeding of the 3rd conference on Designing for User Experience*, Chicago, IL, USA, November 2007
- D. A. Shamma, R. Shaw, P. L. Shafton, and Y. Liu. Watch what i watch: using community activity to understand content. In *MIR '07: Proceedings of the international workshop on Workshop on multimedia information retrieval*, pages 275–284, New York, NY, USA, 2007. ACM
- S. H. Owsley, K. J. Hammond, D. A. Shamma, and S. Sood. Buzz: telling compelling stories. In *MULTIMEDIA '06: Proceedings of the 14th annual ACM international conference on Multimedia*, pages 261–268, New York, NY, USA, 2006. ACM

- S. H. Owsley, K. J. Hammond, and D. A. Shamma. Computational support for compelling story telling. In *ACE '06: Proceedings of the 2006 ACM SIGCHI international conference on Advances in computer entertainment technology*, page 83, New York, NY, USA, 2006. ACM
- N. D. Nichols, K. J. Hammond, D. A. Shamma, and S. H. Owsley. Believable performance agents for interactive conversations. In *ACE '06: Proceedings of the 2006 ACM SIGCHI international conference on Advances in computer entertainment technology*, page 43, New York, NY, USA, 2006. ACM
- D. A. Shamma, B. Pardo, and K. J. Hammond. Musicstory: a personalized music video creator. In *MULTIMEDIA '05: Proceedings of the 13th annual ACM international conference on Multimedia*, pages 563–566, New York, NY, USA, 2005. ACM
- D. A. Shamma, S. Owsley, S. Bradshaw, and K. J. Hammond. Using web frequency within multi-media exhibitions. In *Proceedings of the 12th International Conference on Multi-Media*. ACM Press, 2004
- S. Owsley, D. A. Shamma, K. J. Hammond, S. Bradshaw, and S. Sood. The association engine: a free associative digital improviser. In *Proceedings of the 12th International Conference on Multi-Media*. ACM Press, 2004
- G. Briggs, D. A. Shamma, A. J. Cañas, R. Carff, J. Scargle, and J. D. Novak. Concept maps applied to mars exploration public outreach. In *Concept maps: Theory, methodology, technology. Proceedings of the first international conference on concept mapping*, volume 1, pages 109–116. Citeseer, 2004
- C. Albrecht-Buehler, B. Watson, and D. A. Shamma. Textpool: Visualizing live text streams. In *IEEE Symposium on Information Visualization*, Austin Texas, 2004. IEEE
- D. A. Shamma and K. J. Hammond. Imagination environment: Using the web as a source of popular culture. In *ACM SIGGRAPH 2004 Emerging Technology track*. ACM Press, 2004
- D. A. Shamma, S. Owsley, K. J. Hammond, S. Bradshaw, and J. Budzik. Network Arts: Exposing cultural reality. In *Alternate track papers & posters of the 13th international conference on World Wide Web*, pages 41–47. ACM Press, 2004. (Best Paper Nominated)
- V. Setlur, D. A. Shamma, K. J. Hammond, and S. Sood. Towards a non-linear narrative construction. In *Proceedings of IUI Conference*, page 329, Miami, Florida USA, January 2003. Intelligent User Interfaces, ACM
- J. F. Kolen, D. A. Shamma, T. Reichherzer, and T. Flueharty. An ai approach to computer assisted tomography. In *Proceedings of the Eleventh International Florida Artificial Intelligence Research Society Conference*, page 44. AAAI Press, 1998
- C. Turner, K. Ford, P. Hayes, D. Shamma, and R. Manseur. Robots in education. In *Proceedings of the US-Japan Graduate Student Forum in Robotics, Osaka, Japan*, 1996

MAGAZINE ARTICLES

- M. Worrying, P. Sajda, S. Santini, D. A. Shamma, A. F. Smeaton, and Q. Yang. Where is the user in multimedia retrieval? *MultiMedia, IEEE*, 19(4):6–10, oct.-dec. 2012
- D. A. Shamma and M. Slaney. Don't click here. *MultiMedia, IEEE*, 19(3):4–6, july-sept. 2012
- D. A. Shamma. Beyond freebird. *XRDS*, 17:36–38, December 2010
- D. A. Shamma and E. Park. AAAI 2000 Conference Summary. *AI Magazine*, 21(4):11, 2000

BOOK CHAPTERS

- K. Choriantopoulos, D. A. Shamma, and L. Kennedy. *Social Media Retrieval*, chapter Social Video Retrieval: Research Methods in Controlling, Sharing, and Editing of Web Video. Computer Communications and Networks. Springer, 2012

- D. A. Shamma and Y. Liu. *Social Interactive Television: Immersive Shared Experiences and Perspectives*, chapter Zync with Me: Synchronized Sharing of Video through Instant Messaging, pages 273–288. Information Science Publishing, Hershey, PA, USA, 2009
- David A. Shamma and Bryan Pardo. In J. Shen, J. Shepherd, B. Cui, and L. Liu, editors. *Intelligent Music Information Systems: Tools and Methodologies*, chapter MusicStory: a Proactive and Hybrid Approach to Autonomous, Personalized Music Video Creation. Idea Group Inc., 2007

ORGANIZED WORKSHOPS, PANELS, COURSES, and TUTORIALS

- D. A. Shamma and D. Bryne. An introduction to arts and digital culture inside multimedia. In *Proceedings of the 23rd ACM International Conference on Multimedia*, MM '15, pages 1329–1330, New York, NY, USA, 2015. ACM
- S.-F. Chang, M. Cooper, D. Dash, F. Kivran-Swaine, J. Li, and D. A. Shamma. Opportunities and challenges of industry-academic collaborations in multimedia research. In *Proceedings of the 23rd ACM International Conference on Multimedia*, MM '15, pages 45–45, New York, NY, USA, 2015. ACM
- G. Friedland, C.-W. Ngo, and D. A. Shamma. Multimedia commons – community-organized multimodal mining: Opportunities for novel solutions (mmcommons workshop 2015). In *Proceedings of the 23rd ACM International Conference on Multimedia*, MM '15, pages 1337–1338, New York, NY, USA, 2015. ACM
- An Introduction to Arts and Digital Culture inside ACM Multimedia. MM 2014. David A. Shamma and Daragh Bryne.
- P. Cesar, D. A. Shamma, M. Cooper, and A. Kelliher. 3rd international workshop on socially-aware multimedia (sam'14). In *Proceedings of the 22nd ACM International Conference on Multimedia*, MM '14, pages 1259–1260, New York, NY, USA, 2014. ACM
- B. Hecht and D. A. Shamma. A crash course in modern geography for hci researchers and practitioners. In *CHI '14 Extended Abstracts on Human Factors in Computing Systems*, CHI EA '14, pages 1031–1032, New York, NY, USA, 2014. ACM
- Detection, Representation, and Exploitation of Events in the Semantic Web. ISWC 2013. Marieke Van Erp, Laura Hollink, Willem Robert Van Hage, Raphael Troncy, David A. Shamma.
- P. Cesar, M. Cooper, D. A. Shamma, and D. Williams. 2nd international workshop on socially-aware multimedia (sam'13). In *Proceedings of the 21st ACM International Conference on Multimedia*, MM '13, pages 1099–1100, New York, NY, USA, 2013. ACM
- Illumination, Movement, Interaction: Interactive Dance in Theory and Practice Renata Sheppard & David A. Shamma. Uki, New South Wales, Australia. 6/21/2013. <http://www.tekstar.tv/interactive-dance.html>
- Detection, Representation, and Exploitation of Events in the Semantic Web. ISWC 2012. Marieke Van Erp, Laura Hollink, Willem Robert Van Hage, Raphael Troncy, David A. Shamma.
- Workshop on Socially-Aware Multimedia, ACM MM 2012. Pablo Cesar, David A. Shamma, Doug Williams, Cees Snoek.
- H. Cramer, M. Rost, F. Bentley, and D. A. Shamma. Research in the large 2. using app stores, markets, and other wide distribution channels in ubicomp research. In *Proceedings of the 13th ACM international conference adjunct papers on Ubiquitous computing*, Ubicomp '11, New York, NY, USA, 2011. ACM
- D. A. Shamma, S. Fitzsimmonds, J. Gregorio, A. Hupp, R. Jain, and K. Marks. What the web can't do. In *Proceedings of the 19th international conference on World wide web*, WWW '10, pages 1341–1342, New York, NY, USA, 2010. ACM
- D. A. Shamma, D. Perkel, and K. Luther. Understanding the creative conversation: modeling to engagement. In *C&C '09: Proceeding of the seventh ACM conference on Creativity and cognition*, pages 491–492, New York, NY, USA, 2009. ACM

- D. A. Shamma and R. Shaw. Supporting creative acts beyond dissemination. In *C&C '07: Proceedings of the 6th ACM SIGCHI conference on Creativity & cognition*, pages 276–277, New York, NY, USA, 2007. ACM

INVITED TALKS and PANELS

- Images and Archives. Internet Archive Leader’s Forum. 10/2014.
- How to see 1 million photos. Information Visualization Lecture. National University of Singapore. 4/2014.
- Media Privacy and Expectation. Social Computing Lecture. National University of Singapore. 2/2014.
- Media, Community and the Social Photograph.
 - Cornell Tech.
 - Singapore Data Science Meetup.
 - Singapore Management University.
 - National University of Singapore.
 - CMU.
 - Georgia Tech.
 - UC Irvine. 1/10/2014.
- Digital Arts Symposium (Panel) **The Konvergence: Tek***. Barry Hill, Grayson Cooke, Andrew Burrell, Renata Sheppard, David A. Shamma. Byron Bay, New South Wales, Australia. 6/20/2013.
- Language and the Digital Archive (Panel) **Digital Inquiry: Forms of Knowledge in the Age of New Media**. Geoff Nunberg (ISchool, UCB), Mairi McLaughlin (French, UCB) David A. Shamma (Yahoo! Research) Moderator: David Bates (Rhetoric, UCB) 4/28/2012.
- Social Justice in the Age of Big Data (Panel) **Swinging and Flowing: Inclusion and Diversity in the Age of Data**. Omoju Miller (UC Berkeley Engineering), Jabari Mahiri (UC Berkeley Department of Education), Victoria Robinson (UC Berkeley American Cultures), Shannon Spanhake (City of San Francisco), David A. Shamma (Yahoo! Research). Moderator: Charles Henry (Chair, African American Studies, UC Berkeley). 4/26/2012.
- Social Substrates: People and the Data They Make.
 - Dean’s Lecture, School of Information, University of California. 2/29/2012.
 - Computer Science Seminar, Drew University. 4/2/2012.
 - School of Communications and Information, Rutgers University. 4/4/2012.
- Social Media Platforms: Future Trends and Technologies (Panel) with Google+ (Timothy Jordan), Facebook (Don Faul), and Yahoo! (David A. Shamma) at the Office of Naval Research (ONR)’s Social Media Conference: Current and Emerging Technology and Applications in Government and Industry. December 13–15, 2011. San Jose, CA.
- Recommending from Actions, Not Content: New Approaches in Social Recommendation. Shamma D. A. Keynote. In I. Guy, L. Chen, and M. X. Zhou. 2nd international workshop on social recommender systems. In *Proceedings of the ACM 2011 conference on Computer supported cooperative work*, CSCW ’11, New York, NY, USA, 2011. ACM
- Staying together: an exploration of synchronous connected systems. Shamma D. A.
 - Nokia Research, Beijing. 9/16/2011.
 - Multimedia Information Class Lecture, iSchool, Berkeley. Spring 2011.
 - HCI Seminar, Stanford. 1/12/2011.
 - iSchool Seminar Series, UT Austin. 11/12/2010.
 - CS Seminar Series, Texas A&M. 11/11/2010.

- HCI Lecture Series, CSAIL. MIT. 10/8/2010.
- GVU Brown Bag. Georgia Tech. 9/16/2010.
- Data, Information, Transformation: The Role of Social Media in Protest. Generating Protest Art. February, 25th, 2011. Berkeley Center for New Media. Berkeley, California.
- A movie and a chat: understanding conversation and real-time video
 - Computer Science Seminar, University of Amsterdam/CWI. 11/10/2009.
 - Lecture Series, FXPal. 11/06/2009.
- Synergies Between Search and Social Metrics, MediaX Workshop, Stanford University. 8/05/2009. Shamma D. A.
- (we need to talk): conversations, media, and social relationships.
 - HCI Seminar, Department of Computer Science, UIUC. 04/14/09.
 - Cognitive Systems Group Seminar, Department of Electrical Engineering and Computer Science, Northwestern University. 04/13/09.
- Spinning Online: A Case Study of Internet Broadcasting by DJs, CS Colloquium, Pomona College. 11/2008. Shamma D. A.
- Sssh! I'm watching this: conversational behaviors around real-time video. Union College. 4/8/2010. Shamma D. A.
- Social Media in the Year 2020. ACM WWW 2008, Beijing China. Jain, R., Nack, F., Shamma, D. A., Seligmann, D., Davis, M., and Adamic, L.
- Remix, Art, Technology, and Culture. Art Institute of Chicago – Department of Film and Media. 2007. Shamma D. A., Shepard, R.
- The Web as Artistic Medium. Institute for Human and Machine Cognition. Pensacola, Florida.
- A Life without Friction: Tales from the InfoLab. ACM IUI 2003. San Francisco, CA. Hammond K., Birnbaum, L., Budzik, J., Crossen, A. Shamma, D. A., Setlur, V.
- Concept Mapping as Classroom Scientific Collaboration. Oregon Science Teacher Association, Annual Summit. With R. D. Gus Fredrick. Oregon Public Education Network. October 2000

SELECTED AWARDED PATENTS

(from 11 total awarded, 27 currently filed)

- C. Jones, D. Shamma, and E. Churchill. Synchronization of advertisement display updates with user revisitation rates, July 8 2014. US Patent 8,775,945
- C. Jones, E. Churchill, and D. Shamma. Tutorial systems for code creation and provenance tracking, Jan. 21 2014. US Patent 8,635,584
- D. Shamma and P. Shafton. Method and system for media landmark identification, Mar. 15 2011. US Patent 7,908,556
- M. Davis, D. Shamma, R. Martinez, C. Paretto, J. O'Sullivan, C. Higgins, and A. Athsani. Region and duration uniform resource identifiers (uri) for media objects, Dec. 27 2011. US Patent 8,086,700
- K. Weber, S. Tripodi, and D. Shamma. Harvesting of media objects from searched sites without a user having to enter the sites, May 10 2011. US Patent 7,941,416
- K. Weber, S. Tripodi, and D. Shamma. Harvesting of media objects from searched sites without a user having to enter the sites, Apr. 27 2010. US Patent 7,707,198

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- J. Dove. Do photo filters really heighten viewer engagement? Yahoo's research says 'yes'. *The Next Web*, May 2015. <http://bit.ly/1PrebHi>
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- A. Yau. Need instagram attention? use a filter. *What Mobile*, May 2015. <http://bit.ly/1PrebXT>
- M. O'Beirne. Photos are more popular with filters. *Click Online*, May 2015. <http://bit.ly/1JbuvfY>
- M. Zhang. Filtered photos are 21% more likely to be viewed. *PetaPixel*, May 2015. <http://bit.ly/1PreceC>
- *Yahoo and Flickr mix social computing, geolocation and computer vision to boost image recognition tech*, The Next Web, Jackie Dove, November 28, 2014.
- *Finding an image with an image and other feats of computer vision*, Ars Technica, Megan Geuss, November 24, 2014.
- *Yahoo, Flickr share how social is improving image recognition, search*, ZDNet, Rachel King, November 22, 2014.
- *Library of Congress: The Signal (Digital Preservation)* Trevor Owens, August 25, 2014.
- *ICSI Works With Yahoo Labs and Lawrence Livermore Lab to Offer Analytics Tools for Over 100 Million Flickr Images and Videos*. Marie Williams, Reuters. July 3, 2014.
- *On Instagram, Faces Are 38% More Likely to Get 'Likes'* Epoch Times. March 25, 2014.
- *Show Your Face: How Brands Use Faces to Boost Instagram Engagement* SproutSocia. March 24, 2014.
- *Instagram Photos With Faces Get 38% More Likes* Mashable. March, 21, 2014.
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- *SF Gate* "Social science meets computer science at Yahoo". 1/11/2010.
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- *Northwestern Alumni Magazine*. “Cyberculture Connections.” Fall 2005.
- *Wired Magazine*. NextFest.2005: The Wired World’s Fair. 13(6):24. Insert Booklet.
- *Chicago Magazine*. “The Silicon Prairie Rides Again.” June 2005.
- *XBytes TV*, International Channel. Art and Technology segment. October 26, 2004.
- *International Herald Tribune*. “Keyword art links images in novel ways,” Matthew Mirapaul. June 19, 2004.
- *New York Times*. “Art unfolds through keyword search,” Matthew Mirapaul. June 17, 2004.
- *Daily Northwestern*. “Picturing Every Word,” Jackie Stewart. May 11, 2004.
- *Northwestern Observer*. “Imagination Environment connects words, images,” May 6, 2004.
- *Chicago Sun-Times*. “Psychedelic lights yield to Web-driven imagination,” Michael Krauss. April 19, 2004.


ART EXHIBITS, INSTALLATIONS, AND PERFORMANCES


- Lóng Guāng. <https://vimeo.com/69868449> 2013. GLOdance, Tek*. Uki. New South Wales. Australia.
- the Light Dress. 2010. In Light. Richmond, North Carolina.
- Graffiti Dance. 2009. Berkeley, California.
- Zync Video Sharing. Wired NextFest 2007. Los Angeles, California.
- News at Seven. Wired NextFest 2007. Los Angeles, California.
- Imagination Environment: David A. Shamma, Kristian Hammond.
 - Wired NextFest 2006. The Future of Communication. New York.
 - Wired NextFest 2005. The Future of Communication. Navy Pier, Chicago.
 - Emerging Technologies 2004. SIGGRAPH. Los Angeles, California.
 - Second City Chicago. 4/2004–6/2005. Piper’s Alley. Chicago, Illinois.
- MusicStory: David A. Shamma, Bryan Pardo, Kristian Hammond.
 - ACM Multimedia 2005. Singapore.
 - Wired NextMusic 2005. *The Vic Theater*. Chicago, Illinois. Curated by Jeff Tweety.
- Buzz: Sara Owsley, Kristian Hammond, David A. Shamma.
 - Second City Chicago. 2005. Piper’s Alley. Chicago, Illinois.
 - Chicago Improv Festival. 2005. Athenaeum Theater. Chicago, Illinois.
 - Performing Imagination. 2004. “*The Association Engine*,” Northwestern University. Evanston, Illinois.
- Handle with Care: Direct Mail and the American Dream: GirlCharlie, Sara Owsley, Kristian Hammond, David A. Shamma. An installation that immerses spectators in the language of hate, fear and greed found in thousands of pieces of direct mail sent from sweepstakes and right-wing political organizations, solicitations which are largely directed toward the elderly and new Americans. Associative-word technology generates a spontaneous soundtrack inspired by the mail’s vocabular.
 - Performing Arts Chicago’s *PAC/edge: A Convergence of Chicago Artists*. 2004. Athenaeum Theater. Chicago, Illinois.


Projects


- 


Visual Genome. Collaboration with Fei-Fei Li and Michael Bernstein to build a dataset, a knowledge base, an ongoing effort to connect structured image concepts to language. <http://visualgenome.org/>
- 


Yahoo Project Weather. Co-built algorithm to surface 1 million high quality weather images for app editorial.
- 

YFCC100M & Multimedia Commons. Designed and delivered large scale social photography dataset of 100 million photos and videos—collaborating with researchers at ICSI and LLNL as well as Yahoo Academic Relations, Legal, and Privacy teams. <http://mmcommons.org>
- 

Flickr. Architected and co-built Hadoop platform for Data Science and Computer Vision. Used by Scientists, Front-end engineering, Back-end engineering, and Product managers. Built Photo Recommendations and Trending Tag algorithms that returned 2×–3× results against business KPIs.
- 

Yahoo Shopping Taiwan. Co-built algorithm for social-visual product recommendations (+8.5% sales increase).
- 

Open Source Projects. Contributed and/or active maintainer of several projects including: SIGCHI Document Formats (L^AT_EX and Word), pig-mode for Emacs, and others. <https://github.com/ayman>
- 

Zync. A plugin for Yahoo! Messenger which enables the synchronous sharing of web video. <http://bit.ly/hVyXcE>
<http://bit.ly/oNTofV>
- 

Fire Eagle. Yahoo! Fire Eagle is a service that helps users share their location online with their friends and with other sites and services. Built in Ruby on Rails several components, including the API Explorer, co-built the mobile optimized pages, and helped write developer examples and content.

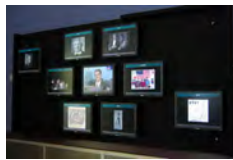


Inline Flickr Viewer. A Flickr photo and video viewer displayed inline in a Yahoo! Messenger conversation window.

- **Karaoke Callout & VocalSearch.** Adapted and optimized a query-by-humming system for mobile phone usage in a competitive singing game with a purpose. <http://bit.ly/oLEj1H>

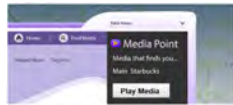


interActor. Designed an interactive framework for a halfLife2 mod to support dynamic script based interactions for virtual actors. This includes the ability for virtual actors to autonomously find relevant information online as well as a user-centric dialog model for speech to text applications. <http://bit.ly/nr0Rlj>



Imagination Environment. Art installation which watches media (TV, DVD, Internet news feeds, blogs) and finds related images and media. A complementing suite of Information Retrieval tools were also built as a supporting software structure. <http://bit.ly/r1FUZx>

- **MusicStory.** Projects popular association based related images of the lyric of a song in time to the audio's beat. <http://bit.ly/oLEj1H>



MediaPoint. An exploration in securely delivering media to network locations, targeted at WiFi hotspots. <http://bit.ly/pSo0AQ>



CMEX Mars. NASA Ames Research Center with Geoff Briggs (ARC), Alberto Cañas (IHMC), et. al. In a departure from previous digital educational outreach products CMEX Mars uses new browser technology developed at IHMC that center on the use of concept maps. NASA High School Educational Outreach. <http://cmex.ihmc.us/>

- **IHMC CMap Tools.** with Alberto Cañas, Pat Hayes, et. al. The IHMC Concept Mapping Software empowers users to construct, navigate, share, and criticize knowledge models represented as Concept Maps. The toolkit allows the users to build, and collaborate during the construction of concept maps with colleagues anywhere on the network, as well as, share and navigate through others' models distributed on servers throughout Internet. <http://cmap.ihmc.us/>
- **System to Organize Representations in Meteorology (Storm-LK)** with Ken Ford, Robert Hoffman, et. al. The STORM-LK project was intended to illustrate the application of the principles of Human-Centered Computing (HCC). The domain of weather forecasting was selected for study, with the goal of creating a "cognitive prosthesis"—a computational system that leverages and extends human intellectual, perceptual, and collaborative capacities. <http://bit.ly/nFcXry>
- **Survey Application Robust Templated Runtime Environment (SARTRE).** Master's Project. Automatically deploy, administer, and collect survey data from computer-novice consumer panelists using hand held (Apple Newton & PalmOS) computers. Funded by Proctor and Gamble

PROFESSIONAL SERVICE

General Chair

- ACM Creativity and Cognition (2017).

Steering Committee

- ACM TVX (2014–2017).
- ACM Multimedia (2013–2016).

Editorial

- *Co-Editor Arts & Digital Culture ACM SIGMM*, Association for Computing & Machinery's Special Interest Group for Multimedia. (2/12–present)
- *Curator, Multimedia XSEAD*. XSEAD is a community platform for those working to advance engineering and science through design and the arts. (10/2012–6/2014)

Technical Program Committees

- ACM Creativity and Cognition: Papers Co-chair (2015).
- ACM CHI AC (2015).
- ACM CSCW AC (2015).
- ACM MultiMedia: Technical Program Co-Chair (2013).
- SIGMM: Interactive Arts & Culture, Co-Editor (2012–present).
- ACM Mulitmedia: Interactive Arts & Culture, Co-Chair (2011-2012).

Other Committees

- TVX Demos Chair (2014).
- ACM Creativity & Cognition: Workshops Chair (2013).
- TOMCCAP: ACM MM 2012 Best Papers & Best Student Papers Co-Editor.
- Elsevier's Entertainment Computing, Editorial Board Member, Section Editor for Interactive Television (2012)
- MobileHCI: Demos and Exhibitions Co-chair (2012).
- EuroITV: Systems Track Co-chair (2012).
- ACM Mulitmedia: Technical Demo Sessions Judge (2012).
- ACM WWW: TPC Member (2010-2012).
- ACM Creativity & Cognition, Publicity Chair (2009).
- ACM JCDL: TPC Member (2008).

Reviewer

- ACM Mulitmedia (2007-present).
- AAAI Conference on Weblogs and Social Media (2008-present).
- ACM CHI (2008-present).
- ACM CSCW (2008-present).
- ACM WWW (2011–2012).
- TEI 2010.
- EuroITV (2008–2010).
- NSF Merit Award Reviewer (2008).
- ACM IUI (2002–2005).

ADVISING/MENTORING**Post-docs**

- John Alexis Guerra-Gomez, Yahoo Labs. (2015–2016)
- Yannis Kalantidis, Yahoo Labs. (2014–2016)
- Bart Thomée, Yahoo Labs, ACM 2016 MM Rising Star Recipient. (2013–2016)

Thesis Committees

- Sanjay Kairam, Computer Science, Stanford, Ph. D. (2016)
- Saeideh Bakhshi, GVU, Georgia Tech, Ph. D. (2014)
- Mattias Rost, (International Opponent). Swedish Institute of Computer Science and Mobile Life Centre. (2013)

Intern Supervision

- Sanjay Kairam, Stanford, Ph. D. (2015)
- Vikas Kumar, GroupLens, U. Minnesota, Ph. D. (2015)
- Dan Tasse, CMU, Ph. D. (2015)
- Saeideh Bakhshi, GVU, Georgia Tech, Ph. D. (2013)
- Zach Toupes, Texas A&M, Ph. D. (2011)
- Jude Yew, School of Information, U. Michigan, Ph. D. (2010)
- Yiming Liu, iSchool, UC Berkeley, M. S. (2008)
- Marcello Bastéa-Forte, Computer Science, Stanford, M. S. (2008)
- Niels Joubert, Computer Science, Berkeley, B. S. (2008)
- Ryan Shaw, iSchool, UC Berkeley, Ph. D. (2007)

PROFESSIONAL MEMBERSHIPS

- ACM, *Senior Member* (2012–present)
- ACM, *Member* (2001–2012)
- AAAI (1997–2001, 2009–2012)
- IEEE (1997–2001)

AWARDS, HONORS, and OTHER ACTIVITIES

- Yahoo Master Inventor Award. 2015. 27 patents filed, 11 awarded.
- Yahoo CEO/Marissa Mayer Challenge, Team Winner. 2014.
- ACM Senior Member awarded 2012.
- the Reawakening. 2011. Physical Hack Day, Pervasive Computing, San Francisco, CA.
- May 2010 iSticks. Music Hackday San Francisco. Winner of 2 awards. <http://bit.ly/rv0Fwx>
- August 2005 Awarded 1st Dan, Kukkiwon (WTF) Taekwondo.
- 2004–2005 CS Chair's Advisory Committee, Northwestern University
Graduate Student Advisor to the Department Chair
Graduate Student Representative, Building Committee
- August 2004 Terminal Year Fellowship. Graduate School, Northwestern University.
- October 2001 Murphy Fellowship. Department of Computer Science, Northwestern University.
- May 2001 Intel ISEF 2001, International Science Fair Judge, EE/CS Division. San Jose, CA.

- March 2000 Synopsis, Santa Clara County California Science Fair Judge, Physics, 8th Grade Division.
- March 1999 Escambia/Santa Rosa County Florida Science Fair Judge, Computer Science, High School division.
- November 1998 Cinco Banderas NW Florida Annual Art Exhibition. haute lâĂŽeau, Digital Gelatin Silver Print. Judges Award Recipient.
- Spring 1998 Outstanding Graduate Student Award (Masters). Computer Science, College of Science and Technology. The University of West Florida.
- June 1997 Web Site Awarded Featured Academic Site by InterNIC.
- December 1995 Winner of Annual Lego Robot Competition, IHMC. (with Daniel Butler)