

# Seungwon Yang

7250 Perkins Rd. #113  
Baton Rouge, LA 70808 USA  
+1-540-230-8983

seungwonyang@lsu.com

<http://curric.dlib.vt.edu/DLcurric/seungwoninfo.html>

---

## Areas of Interest

- Information Archiving, Analysis, and Visualization
- Digital Libraries & Information Systems
- Information Retrieval
- Topic Identification

---

## Expertise & Familiarity

- Python, R, C++
- D3, JSON, Natural Language Tool Kit
- MySQL, MongoDB, Apache SOLR, Drupal
- Gephi network visualization tool, Sci2, Weka
- Gensim (LDA, LSA, Vector Space Model)

---

## Research & Professional Experience

### Modeling & Clustering Informal Learning in Online Communities

Various online communities support formal learning (e.g., MOOCs) as well as an informal learning (e.g., Stackoverflow, Github, Yahoo! Answers, Scratch™ Online) opportunities. It is difficult to assess and measure informal learning occurring in such communities although it is valuable in improving or designing new services for the members of the community. I modeled learning of a person as a trajectory of learned programming vocabulary over time, and found patterns by clustering more than 8 thousand members of the Scratch™ Online community.

- Attending the Scratch™ data summit held at MIT to discuss and get the datasets.
- Modeling, clustering, and visualizing the patterns of informal learning.
- Submitting study results to Learning at Scale conference (L@S 15 - accepted).

*Post-doctoral  
Study*

*Jan. 2014-  
present*

### Automatic Topic Tagging Based on Expansion-Extraction Approach

I developed an approach for automatic topic tagging, which is based on the concept of 'using many low quality inputs to produce high quality output.' The tag quality was found to be comparable in quality to that of human-generated tags from experiments. The benefits include applicability in dynamically changing Web archives as well as less human intervention in setting up and running the system.

- Building prototypes and evaluating the quality of outputs by comparing to human tags as well as tags generated from a state-of-the-art topic identification API.
- Developing a user interface to load, examine, and extract topics from texts.

*Doctoral  
Study*

### Crisis, Tragedy, and Recovery Network (CTRnet) Project &

#### Integrated Digital Event Archiving and Library (IDEAL)

In collaboration with the Internet Archive (IA), these two projects aim to collect online resources such as webpages and tweets about natural or man-made disasters as well as community events, and provide services such as searching, browsing, and visualization of the data (NSF grant no. IIS-0916733 and IIS-1319578 respectively). Several sub-projects regarding tweet archives were conducted.

- Developing tweet and webpage archives using open-source tools and a Web crawler from IA. Seed URLs were extracted from tweets and fed into the Web crawler for harvesting.

*Summer  
2010-  
Fall 2013*

- Designing and collaboratively developing a prototype to automate archiving.
- Identifying and expanding the set of concepts about disaster management in the CTR ontology using the Protégé ontology editor.
- Maintaining the project homepage (<http://www.ctrnet.net>).
- Supervising students working on data filtering with machine learning approaches.
- Generating multiple publications: conference proceedings, tutorials, and posters.

**PhaseVis: Visualizing Four Phases of Emergency in Disaster Tweets**

*Fall 2012*

The goal was to classify disaster tweets (i.e., Hurricane Isaac) into one of four emergency phases (i.e., response, recovery, mitigation, and preparedness), and then implement multi-view visualizations that represent the what, when, where, and who aspects of the data set in order to understand the data from multiple angles.

- Classifying tweets using machine learning: multinomial SVM, multi-class Naïve Bayes, and Random Forest algorithms.
- Developing visualizations to represent tweet volumes in different phase categories, Google Map for user locations, Sigma.js for a user network graph, and Excel list for tweet content listing.
- Presenting a paper at ISCRAM 2013, May 12-15, Baden-Baden, Germany.

**ProVis: Visual Analytics System for Large Text Corpus Analysis: Internship work at Palo Alto Research Center (PARC)**

*Summer 2012*

The project goal was to design and build a prototype for an information system that is scalable for large textual data analysis.

- Developing a user interface, where users can search, browse, and interact with visualization of important keywords in a large text corpus. Used technologies include JavaScript, JQuery, JQuery UI, and D3 force-directed graph layout.
- Processing the back-end data using a subset of New York Times corpus, Apache SOLR indexing system, MongoDB, and Python.
- Developing an algorithm to effectively show important keywords in search results.

**VizCept: Supporting Synchronous Collaboration for Intelligence Analysts**

*Fall 2010*

This study started from a question, "how can we design an intelligence analysis system so that multiple analysts could collaboratively work on a same large text data set to reduce analysis time in a synchronous/asynchronous and remote/collocated environment?" Using VizCept, each analyst works on a part of the data set on their space, and the results are automatically and seamlessly combined into a collaborative concept map on a shared space.

- Developing usage scenarios, multi-user interactions, and social rules.
- Designing the collaborative concept map details.
- Presenting at IEEE VAST 2010, Oct. 24-29, Salt Lake City, Utah.

**Collaborative Research: Curriculum Development: Digital Libraries**

*2006-2009, continuing collaboration*

A joint project with the School of Information and Library Science at the University of North Carolina, Chapel Hill (NSF grant no. IIS-0535057 for VT, and IIS-0535060 for UNC, Chapel Hill).

- Designing, developing, and reviewing multiple educational modules for a unified digital library curriculum to be used in both Computer Science and Library and Information Science digital library classes.
- Supervising educational module development by two graduate students.
- Setting up a local MediaWiki server for evaluation of the modules.
- Maintaining the project homepage (<http://curric.dlib.vt.edu>), and the Wikiversity page ([http://en.wikiversity.org/wiki/Curriculum\\_on\\_Digital\\_Libraries](http://en.wikiversity.org/wiki/Curriculum_on_Digital_Libraries)).

---

## Education

### **Post-doctorate in Learning Analytics**

Dept. of Information Sciences & Technology, George Mason Univ., Fairfax, VA

*Jan. 2014-*

*Jul. 2015*

### **Ph.D. in Computer Science**

Dept. of Computer Science, Virginia Tech, Blacksburg, VA

*Dec. 2013*

• Doctoral Committee: Edward A. Fox (Chair), Naren Ramakrishnan, Weigu

Patrick Fan, John F. Moore, and Barbara M. Wildemuth

### **Master's in Computer Science**

Dept. of Computer Science, Virginia Tech, Blacksburg, VA

*May 2004*

### **B.S. in Computer Science**

Dept. of Computer Science, Virginia Tech, Blacksburg, VA

---

## Graduate Coursework

### **Courses for Information and Data Processing, Visualization, and Systems**

- Information Storage and Retrieval
- Information Visualization
- Digital Libraries
- Data Mining
- Database Management Systems
- Human Information Processing
- Pattern Classification and Clustering

### **Courses for Human-Computer Interaction (HCI)**

- Computer Supported Cooperative Work (CSCW)
- Designing Handheld Software/Educational Tasks
- Distributed Coordinated Behavior
- Learning in Social Contexts (CSCL)

### **Courses for Software Systems and Experiments**

- Software Engineering
  - Statistics in Research
  - Research Methods in Computer Science
- 

## MOOCs & Other Trainings

**Information Visualization (ivmooc)** from Indiana University taught by Prof. Katy Börner (Mar.-May. 2014).

Conducted a client project (Federal Library Resource Visualization), no credit course

**Writing in the Sciences** from Stanford University taught by Prof. Kristin Sainani (Sep.-Nov. 2014).

Score of 91%. A statement of accomplishment (with distinction) received.

**Tackling the Challenges of Big Data (edX course)** from MIT (Mar. 4-Apr. 1, 2014).

An official certificate and 2.0 continuing education units (CEU) received.

**Machine Learning** from Stanford University taught by Prof. Andrew Ng (Oct.-Dec. 2011).

Advanced Track

Review questions 79.75 out of maximum 80

Programming exercises 800 out of maximum 800

**Introduction to Artificial Intelligence** from Stanford University taught by Prof. Sebastian Thrun and Prof. Peter Norvig (Oct.-Dec. 2011).

Advanced Track

Score of 83.8% (based on six best assignments (30%), a midterm (30%), and a final exam (40%))

**ICPSR Summer Program: Curating and Managing Research Data for Re-Use** from the University of Michigan, Ann Arbor, taught by Jared Lyle et al. (Jul. 28-Aug. 1, 2014).

---

## Teaching Experience

- Graduate Teaching Assistant: Data Structures (undergraduate)** *Spring-Summer 2013, Spring 2010*
- Answered questions related to projects and homework during office hours
  - Graded programming projects and homework
- Graduate Level Courses** *2008-2012*
- CS 5604 Information Retrieval and Storage, presentation for social media analysis and visualization studies, and topic identification study. Slides and voice were recorded for online access, one class, Fall 2012.
  - CS 6604 Digital Libraries, presentation for Ch. 7 Ontologies in 5S DL Book (with co-author Mohamed Magdy), one class, Fall 2011; two classes, Fall 2008.
  - CS 6724 Distributed Coordinated Behavior, one class, Spring 2008
- Tutorial: Digital Government Research Conference (dg.o'11)** *Jun. 12-15, 2011*
- Taught this half-day tutorial about tweet archiving, analysis, and visualization using open source software tools, packages, Python, Processing, and Linux for an audience with mostly non-technical background.
- Faculty Development Institute (FDI) at VT (Track E session)** *Jul. 21-23, 2009*
- Participated as a facilitator and presenter. Participants from diverse disciplines discussed computing concepts and applications and engaged in activities (e.g., online resource finding, educational module development, field trips).
- Undergraduate Level Courses (guest speaker, demo of Second Life)** *Spring 2009*
- CS/BIT/ACIS 1614 Introduction to Living In the KnowlEdge Society (LIKES)
- 

## Academic Honors

- Sung Kyun Kwan University, Suwon, Republic of Korea** *1992*
- Toe-Gye Scholarship: full scholarship
- 

## Service

- Paper Review:** *2011-2015*
- Advances in Engineering Education (1 paper)
  - Journal of Universal Computer Science (2 papers)
  - Journal of Information and Data Management (1 paper)
  - Journal of Information and Knowledge Management (1 paper)
  - Journal of Intelligent Information Systems (2 papers)
  - The ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL'11) (2 papers)
  - The International Conference on Asian Digital Libraries (ICADL'11) (1 paper)
  - Advances in Information Retrieval (1 paper) *2010*
- ACM Conference on Human Factors in Computing Systems (CHI'10), Atlanta** *2010*
- Student volunteer
- Blacksburg Public Library, Blacksburg, VA** *2003*
- Computer lab proctor
- Georgia Tech Language Institute, Atlanta, GA** *2000*
- Listening lab proctor
- Military: Korean Air Force Headquarters, Dae Jeon, Republic of Korea** *1994-1996*
- Served military duty in a communication team
- 

## Membership Organizations

- Association for Computing Machinery (ACM)
- Upsilon Pi Epsilon (International Honor Society for the Computing and Information Disciplines)
- Chiang Shan Pa Kua Chang Association

---

## Publications

### Dissertation

1. **Yang, S.** (2013). Automatic Identification of Topic Tags from Texts Based on Expansion-Extraction Approach (Dissertation). Dec. 4, 2013. Dept. of Computer Science, Virginia Tech. <http://vtechworks.lib.vt.edu/handle/10919/25111>.

### Submitted Papers

1. Johri, A. and **Yang, S.** (2015). Scaffolded Help for Newcomers in an Online Programming Forum. *International Journal of Computers and Education (C&E)*.
2. Gelman, B., Beckley, C., Johri, A., Domeniconi, C. and **Yang, S.** (2015). Online Urbanism: Interest-based Subcultures as Building Blocks in an Online Community of Creators. CSCW'16.

### Journal Papers

1. Oh, S., **Yang, S.**, Pomerantz, J., Fox, E. A., & Wildemuth B. M. (2015). Results of a Digital Library Curriculum Field Test. *International Journal on Digital Libraries (IJDL)*.
2. Allameh, M. E., Vorvoreanu, M., **Yang, S.**, Johri, A., & Madhavan, K. Informing the Sharing and Access of Engineering Education Research Data through Comparative Analysis. *American Society for Engineering Education (ASEE) 2015*.
3. Kavanaugh, A.L., Sheetz, S.D., Hassan, R., **Yang, S.**, Fox, E.A., Magdy, M., & Elmongui, H.G. Between a Rock and a Cell Phone: Communication and Information Use during the Egyptian Uprising. *International Journal of ISCRAM (IJISCRAM)*, vol. 5, no. 1, pp. 1-21, 2013.
4. Kavanaugh, A.L., Fox, E.A., Sheetz, S.D., **Yang, S.**, Li, L.T., Whalen, T., Shoemaker, D. J., Natsev, P., and Xie L. Social Media Use by Government: From the Routine to the Critical. *Government Information Quarterly (GIQ)* 29(4): 480-491, <http://dx.doi.org/10.1016/j.giq.2012.06.002>.
5. Fox, E. A., Andrews, C., Fan, W., Jiao, J., Kassahun, A., Lu, S. C., Ma, Y., North, C., Ramakrishnan, N., Scarpa, A., Friedman, B. H., Sheetz, S. D., Shoemaker, D., Srinivasan, V., **Yang, S.**, and Boutwelle, L. A Digital Library for Recovery, Research, and Learning from April 16, 2007 at Virginia Tech. *Traumatology*, Vol. 14, Issue 1 (March 2008). 64-84, DOI: 10.1177/1534765608315632.
6. Pomerantz, J., Oh, S., **Yang, S.**, Fox, E. A., & Wildemuth, B. (2006). The Core: Digital Library Education in Library and Information Science Programs. *D-Lib Magazine*, 12(11). <http://www.dlib.org/dlib/november06/pomerantz/11pomerantz.html>.
7. Pomerantz, J., Wildemuth, B. M., Oh, S., **Yang, S.**, & Fox, E. A. (2006). Briefing: Digital libraries curriculum development. *D-Lib Magazine* 12(7/8). <http://www.dlib.org/dlib/july06/07inbrief.html#POMERANTZ>.

### Conference Papers

1. **Yang, S.**, Domeniconi, C., Revelle, M., Gelman, B. U., Beckley, C. and Johri, A. (2015). Uncovering Trajectories of Informal Learning in Large Online Communities of Creators. The second annual meeting of the ACM Conference on Learning at Scale. Vancouver, BC, Canada. March 14-15, 2015.
2. Molla Alameh, E., Vorvoreanu, M., **Yang, S.**, Johri, A. & Madhavan, K. (2015). A Comparative Analysis of Information Sharing and Access to Engineering Education Research Data. *Proceedings of ASEE 2015*.
3. **Yang, S.**, Chung, H., Lin, X., Lee, S., Chen, L., Wood, A., Kavanaugh, A. L., Sheetz, S. D., Shoemaker, D. J., and Fox, E. A. (2013). PhaseVis: What, When, Where, and Who in Visualizing the Four Phases of Emergency Management through the Lens of Social Media. *Proceedings of the 10<sup>th</sup> International ISCRAM Conference – Baden-Baden, Germany, May 12-15, 2013*.
4. Kavanaugh, A.L., Sheetz, S.D., Hassan, R., **Yang, S.**, Fox, E.A., Magdy, M., Elmongui, H.G. (2012). Between a Rock and a Cell Phone: Communication and Information Use During the Egyptian Uprising. In *Proceedings of the 9th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2012)*. Apr. 22-25. Vancouver, Canada.

5. Kavanaugh, A. L., Fox, E. A., Sheetz, S. D., **Yang, S.**, Li, L. T., Whalen, T., Shoemaker, D., Natsev, P., and Xie, L. 2011. Social media use by government: from the routine to the critical. In Proceedings of the 12th Annual International Digital Government Research Conference: Digital Government Innovation in Challenging Times (dg.o '11). ACM, New York, NY, USA, 121-130.
6. Chung, W., **Yang, S.**, Fox, E. A., and Sheetz, S. (2010). Integrating Computational Thinking into Information Systems and Other Curricula. In Proceedings of the International Conference on Informatics Education and Research (SIGED: IAIM 2010). December 11-12, 2010. St. Louis, MO, USA.
7. Chung, H., **Yang, S.**, Massjouni, N., Andrews, C., Kanna, R., and North, C. (2010). VizCept: Supporting Synchronous Collaboration for Constructing Visualizations in Intelligence Analysis. The IEEE Conference on Visual Analytics Science and Technology (IEEE VAST'10), Oct. 24-29, 2010, Salt Lake City, Utah, USA.
8. **Yang, S.**, Chung, H., North, C. and, Fox, E.A. (2010). The Effect of Presenting Long Documents on a Large High-Resolution Display on Comprehension of Content and User Experience. Paper presented at ETD 2010: The 13th International Symposium on Electronic Theses and Dissertations, Austin, TX, June 16-18, 2010.
9. **Yang, S.** (2009). Thesis Support Information System (TSIS). The 9th ACM/IEEE-CS Joint Conference on Digital Libraries (Doctoral Consortium), June 15-19, 2009, Austin, TX, USA.
10. Evans, M., Black, A., Chao, D. and **Yang, S.** (2008). Kids For Change. Paper presented for Division 12 (Education and Technology) at Eastern Educational Research Association (EERA) Conference 2009, Sarasota, FL, February 25-28, 2009.
11. **Yang, S.**, Levy, J., Miller, K., Pomerantz, J.P., Oh, S., Wildemuth, B.M., Fox, E.A. (2008). Two approaches to enhance the education for ETDs: Developing educational modules and migrating the ETD Guide into a community wiki. The 11th International Symposium on Electronic Theses and Dissertations, Aberdeen Scotland, June 4-7, 2008.
12. **Yang, S.**, Wildemuth, B. Kim, S., Murthy, U., Pomerantz, J., Oh, S. & Fox, E. A. (2007). Further Development of a Digital Library Curriculum: Evaluation Approaches and New Tools. The 10th International Conference on Asian Digital Libraries, Hanoi, Vietnam, Dec. 10-13, 2007. Published by Springer, Berlin.
13. **Yang, S.**, Oh, S., Pomerantz, J., Wildemuth, B. & Fox, E. A. (2007). Improving Education and Understanding of NDLTD. The 10th International Symposium on Electronic Theses and Dissertations, Uppsala, Sweden, June 13-16, 2007.
14. Pomerantz, J., Oh, S., Wildemuth, B. M., **Yang, S.**, and Fox, E. A. 2007. Digital library education in computer science programs. In Proceedings of the 7th ACM/IEEE-CS Joint Conference on Digital Libraries (Vancouver, BC, Canada, June 18 - 23, 2007). JCDL '07. ACM, New York, NY, 177-178. DOI= <http://doi.acm.org/10.1145/1255175.1255208>
15. **Yang, S.**, Fox, E. A., Wildemuth B. M., Pomerantz, J., and Oh, S. Interdisciplinary Curriculum Development for Digital Library Education. The 9th International Conference on Asian Digital Libraries (Kyoto, Japan, Nov. 27-30, 2006). ICADL '06. Springer Berlin, pp. 61-70.
16. Pomerantz, J., Wildemuth, B. M., **Yang, S.**, and Fox, E. A. 2006. Curriculum development for digital libraries. In Proceedings of the 6th ACM/IEEE-CS Joint Conference on Digital Libraries (Chapel Hill, NC, USA, June 11 - 15, 2006). JCDL '06. ACM Press, New York, NY, 175-184. DOI= <http://doi.acm.org/10.1145/1141753.1141787>
17. Fox, E. A., Wildemuth, B. M., Pomerantz, J., and **Yang, S.** Digital Library Curriculum Development: Enhancing Education and Comprehension of NDLTD, The 9th International Symposium on Electronic Theses and Dissertations (ETD 2006).
18. Fox, E. A., Yang, S., & Kim, S. (2006). ETDs, NDLTD, and open access: a 5S perspective. *Ciência da Informação*, 35(2), 75-90. Retrieved December 01, 2014, from [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0100-19652006000200009&lng=en&tlng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-19652006000200009&lng=en&tlng=en). 10.1590/S0100-19652006000200009.
19. Kim, S., **Yang, S.** and Fox, E. A. Supply and Demand Analysis in NDLTD Based on Patron Specialty Survey and Contents Statistics, The 9th International Symposium on Electronic Theses and Dissertations (ETD 2006).

### Tutorials

1. **Yang, S.** and Kavanaugh, A. L. 2011. Collecting, analyzing and visualizing tweets using open source tools. In Proceedings of the 12th Annual International Digital Government Research Conference: Digital Government Innovation in Challenging Times (dg.o '11). University of Maryland, College Park, MD. USA. ACM, New York, NY, USA, 374-375.

### Book Chapters

1. **Yang, S.** and Magdy, M. Ontologies. Pages 63-88 in Edward A. Fox and Ricardo da Silva Torres, editors. Digital Library Technologies: Complex Objects, Annotation, Ontologies, Classification, Extraction, and Security. Morgan & Claypool Publishers, San Francisco, March 2014, 205 pages, ISBN paperback 9781627050302, ebook 9781627050319, <http://dx.doi.org/10.2200/S00566ED1V01Y201401ICR033>.
2. **Yang, S.**, Oh, S., Wildemuth, B. M., Pomerantz, J. P., & Fox, E. A. (2010). Educational Resource Development for Information Retrieval in a Digital Libraries Context. In Approaches to Teaching and Learning Information Retrieval (TLIR) (Ed. Efthimiadis, E.N. et al.). Chapter 14, 199-212.
3. Fox, E. A., Murthy, U., **Yang, S.**, Torres, R. S., Velasco-Martin, J., and Marchionini, G. (2010). Pedagogical Enhancements to a Course on Information Retrieval. In Approaches to Teaching and Learning Information Retrieval (TLIR) (Ed. Efthimiadis, E.N. et al.). Chapter 4, 47-60.
4. **Yang, S.**, Fox, E., Wildemuth, B., Pomerantz, J., & Oh, S. (2009). Core Topics in Digital Library Education . In Theng, Foo, Goh, and Na (Ed.), Handbook of Research on Digital Libraries: Design, Development and Impact (pp. 493-505). IGI Global.
5. Chung, W., Sheetz, S. D., **Yang, S.**, and Fox, E. A. LIKES: Educating the Next Generation of Knowledge Society Builders, 15th Americas Conference on Information Systems, AMCIS 2009, Aug. 6-9, San Francisco, <http://www.amcis2009.org/>

### Encyclopedia

1. Srinivasan, V., **Yang, S.** & Fox, E. A. (2008). Digital Libraries. Article in Encyclopedia of Database Systems. Springer Berlin.

### Workshop Papers

1. Kavanaugh, A. L., **Yang, S.**, Sheetz, S. D., and Fox, E. A. (2011). Microblogging in crisis situations: Mass protests in Iran, Tunisia, Egypt. Workshop held in conjunction with the ACM Conference on Human Factors in Computing Systems (CHI'11). May 7-12, 2011, Vancouver, Canada. 6 pages.
2. Fox, E. A., Lee, S. J., Velasco, J., Marchionini, G., **Yang, S.** and Murthy, U. (2009). Curatorial Work and Learning in Virtual Environments: A Virtual World Project to Support the NDIIPP Community. First International Workshop on Innovation in Digital Preservation, held in conjunction with JCDL '09, June 19, 2009, Austin, TX, USA

### Reports

1. Kavanaugh, A., Nastev, A., Fox, E. A., Sheetz, S., Shoemaker, D., Xie, L., **Yang, S.**, Li, L. T., Srinivasan, V. Social Media for Cities, Counties and Communities. Final Grant Report to VT CCSR. March 11, 2011.  
<http://www.ctrnet.net/sites/default/files/CCSR%20White%20Paper%20Report%20VT%20IBM%20Kavanaugh%20Natsev.pdf>.

### Panel & Committee Services

1. **Yang, S.**, Chung, H., and Kwon, Y. W. (2015). International Program Committee Members. 4<sup>th</sup> International Conference on Informatics, Electronics & Vision (ICIEV), Jun. 15-18, 2015, Fukuoka, Japan. (Planned)
2. Fox, E. A., Zobel, C. and **Yang, S.** (2008). Sakai LIKES Initiative: Living In the KnowlEdge Society. Sakai Virginia Tech Regional Conference 2008, Nov. 11-12, 2008, Blacksburg, VA.

### Posters

1. **Yang, S.** (2015). Topical Scopes of Digital and Data Curation Curricula. 2015 Annual Meeting of The Association for Information Science & Technology. St. Louis, MO, USA. November 6-10, 2015.

2. Ahmed, S., **Yang, S.** and Johri, A. (2015). Does Problem- or Interest-Driven Participation Really Differ? A Comparative Approach on Online Q&A Forum Activity. The second annual meeting of the ACM Conference on Learning at Scale. Vancouver, BC, Canada. March 14-15, 2015.
3. Murphy, J., Shoemaker, D. J., **Yang, S.**, Kavanaugh, A. L., Sheetz, S. D., and Fox, E. A. (2012). Examining the Content of Online Resources Embedded in Tweets: Hurricane Isaac (8/23-9/26/2012). Cultivating Peace: A Student Research Symposium for Violence Prevention. Nov. 16-18, 2012. Blacksburg, VA. USA.
4. **Yang, S.**, Chitturi, K., Wilson, G., Magdy, M., and Fox, E. A. (2012). A Study of Automation from Seed URL Generation to Focused Web Archive Development: The CTRnet Context. In Proceedings of the 12th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL '12), Washington D.C., USA.
5. **Yang, S.**, Kavanaugh, A. L., Kozevitch, L. P., Li, L. T., Srinivasan, V., Sheetz, S. D., Whalen, T., Shoemaker, D., Torres, R. S., and Fox, E. A. (2011). CTRnet DL for disaster information services. In Proceedings of the 11th annual international ACM/IEEE joint conference on digital libraries (JCDL '11). ACM, New York, NY, USA, 437-438.
6. Li, L. T., **Yang, S.**, Kavanaugh, A. L., Fox, E. A., Sheetz, S. D., Shoemaker, D., Whalen, T., and Srinivasan, V. (2011). Twitter use during an emergency event: the case of the UT Austin shooting. In Proceedings of the 12th Annual International Digital Government Research Conference: Digital Government Innovation in Challenging Times (dg.o '11). ACM, New York, NY, USA, 335-336.
7. Chung, H., **Yang, S.**, Massjouni, N., Andrews, C., Kanna, R., and North, C. (2011). VizCept: Supporting Synchronous Collaboration in Intelligence Analysis. The 27th Annual GSA Research Symposium, March 23, 2011, Blacksburg, VA.
8. **Yang, S.**, Kanan, T. and Fox, E. A. (2010). Digital Library Educational Module Development Strategies and Sustainable Enhancement by the Community. The 14th European Conference on Research and Advanced Technology for Digital Libraries, Sep. 6-10, 2010, Glasgow, Scotland, UK.
9. **Yang, S.**, Lee, Y. S. and Yoo, H. S. (2010). The Usage of Referential Communication and Its Motivation on a Shared Drawing Space. The 2010 ACM Conference on Computer Supported Cooperative Work (CSCW '10), Feb. 6-10, 2010, Savannah, GA, USA
10. Wildemuth, B. M., Pomerantz, J. Oh, S., **Yang, S.** and Fox, E. A. (2009). The Variety of Ways in Which Instructors Implement a Modular Digital Library Curriculum. The 9th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL '09), June 15-19, 2009, Austin, TX, USA
11. Wildemuth, B. M., Pomerantz, J. Oh, S., **Yang, S.** and Fox, E. A. (2009). I-Schools as a Natural Home for Digital Libraries Education. iConference 2009, Feb. 8-11, 2009, Chapel Hill, NC.
12. **Yang, S.**, Fox, E. A. and Chung, W. (2009). Living In the KnowlEdge Society (LIKES) Initiative and iSchools' Focus on the Information Field. iConference 2009, Feb. 8-11, 2009, Chapel Hill, NC.
13. **Yang, S.**, Fox, E. A., Wildemuth, B. M., Pomerantz, J. and Oh, S. (2009). Digital Library Educational Module Development and Field-Testing Results from Virginia Tech. Conference on Higher Education Pedagogy @ VT, Feb. 18, 2009, Blacksburg, VA.
14. Chung, W., **Yang, S.**, Fox, E. A., Zobel, C., Evia, C., Fan, W., Sheetz, S., Beck, R. and Carr, E. The Living In the KnowlEdge Society (LIKES) Community Building Project: Building Collaboration between Computing and Non-Computing Disciplines. Conference on Higher Education Pedagogy @ VT, Feb. 18, 2009, Blacksburg, VA.
15. Murthy, U., Torres, R. d., Fox, E. A., Venkatachalam, L., **Yang, S.**, and Gonçalves, M. A. 2008. From concepts to implementation and visualization: tools from a team-based approach to IR. In Proceedings of the 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (Singapore, Singapore, July 20 - 24, 2008). SIGIR '08. ACM, New York, NY, 889-889. DOI= <http://doi.acm.org/10.1145/1390334.1390563>
16. Pomerantz, J., Wildemuth, B. M., Oh, S., **Yang, S.**, and Fox, E. A. 2008. Evaluation of a curriculum for digital libraries. In Proceedings of the 8th ACM/IEEE-CS Joint Conference on Digital Libraries (Pittsburgh PA, PA, USA, June 16 - 20, 2008). JCDL '08. ACM, New York, NY, 462-462. DOI= <http://doi.acm.org/10.1145/1378889.1379007>.



### Demos

1. **Yang, S.**, Fox, E. A. (2013). Automatic Identification of Topical Tags from Texts using the Web as a Knowledge Source. The Annual Meeting of the Association for Computational Linguistics (ACL 2013). Sophia, Bulgaria, Aug. 4-9, 2013. (System demo submitted).
2. Lee, S., **Yang, S.**, Velasco, J., and Fox, E. A. Second Life Demo for U. Texas Austin, April 3, 2009.
3. Lee, S., **Yang, S.**, Taylor, L., and Fox, E. A. Second Life Demo for VT Computer Science Resources Consortium, Feb. 17, 2009.
4. **Yang, S.**, Congleton, B., Luc, G., Perez-Quinones, M. A., and Fox, E. A. 2006. Demonstrating the use of a SenseCam in two domains. In Proceedings of the 6th ACM/IEEE-CS Joint Conference on Digital Libraries (Chapel Hill, NC, USA, June 11 - 15, 2006). JCDL '06. ACM Press, New York, NY, 376-376. DOI= <http://doi.acm.org/10.1145/1141753.1141872>.

---

### References

- Edward A. Fox <[fox@vt.edu](mailto:fox@vt.edu)>, Dept. of Computer Science, Virginia Tech.
- Barbara M. Wildemuth <[wildem@ils.unc.edu](mailto:wildem@ils.unc.edu)>, School of Information and Library Science, University of North Carolina at Chapel Hill.
- Andrea L. Kavanaugh <[kavan@vt.edu](mailto:kavan@vt.edu)>, Dept. of Computer Science, Virginia Tech.
- Carlotta Domeniconi <[carlotta@cs.gmu.edu](mailto:carlotta@cs.gmu.edu)>, Dept. of Computer Science, George Mason Univ.