

G. Craig Murray

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Research Interests

Cognitive-semantics and human-information interaction during exploratory search.
Query modeling and interpreting implicit feedback from searching and browsing behavior.

Education

University of Maryland, College of Information Studies – PhD candidate Expected completion 5/09

Key courses of study include: Classification Theory; Computational Linguistics;
Information Access, Use and Structure; Information
Retrieval Systems; Human Performance and HCI

Advanced to candidacy 8/07 Graduate GPA 4.0

University of Maryland, College of Information Studies – MLS 8/00 to 5/02

New School University – graduate studies in Cognition and Sociolinguistics 9/99 to 5/00

New York University, Tisch School of the Arts - BFA, Film & Television Production 8/86 to 12/88

Simon's Rock of Bard College - AA, Liberal Arts, early admissions program 8/83 to 5/85

Honors and Awards

AOL – Student research fellowship 2005, 2006

NSF – University of Maryland Graduate WebShop summer fellowship 2002

ΦΚΦ – Inducted Phi Kappa Phi honor society 2002

Journal Publications

Lin, J., Murray, G. C., Dorr, B., Hajic, J., and Pecina, P. J. (In Press). A Cost-effective Lexical Acquisition Process for Large-scale Thesaurus Translation. *Language Resources and Evaluation*

Murray, G. C., and Teevan, J. (2007). Query Log Analysis: Social and Technological Challenges, Workshop Report. *SIGIR Forum*. 41(2). 112-120

Murray, G. C., and Green, R. (2004). Lexical knowledge and human disagreement on a WSD task. *Computer Speech and Language: Special Issue on Word Sense Disambiguation*, 18(3). 209-222.

Conference Publications

Murray, G. C., Lin, J., and Chowdhury, A. (2006). Identification of User Sessions with Hierarchical Agglomerative Clustering [Poster]. In *Proceedings of Annual Meeting of the American Society for Information Science and Technology*, Austin, TX, August 2006.

Murray, G. C., Lin, J., and Chowdhury, A. (2006). Action modeling: Language models that predict query behavior [Poster]. In *Proceedings of SIGIR'06*, Seattle, Washington, August 2006. ACM.

Murray, G. C., Dorr, B., Lin, J., Hajic, J., and Pecina, P. (2006). Leveraging reusability: Cost-effective lexical acquisition for large-scale ontology translation. In *Proceedings of ACL/COLING'06*, Sydney, July 2006.

Conference Publications Continued

- Murray, G. C., Dorr, B., Lin, J., Hajic, J., and Pecina, P. (2006). Leveraging recurrent phrase structure in large-scale ontology translation. *Proceedings of EAMT'06*, Oslo, Norway, June 2006.
- Murray, G. C., and Reuter, K. (2005). Children's acquisition of categories and the implications for research in the development of classification schemes. *SIGCR workshop, 2005 Annual Meeting of the American Society for Information Science & Technology*, Charlotte, North Carolina.
- Lin, J., and Murray, G. C. (2005). Assessing the term independence assumption in blind relevance feedback [Poster]. In *Proceedings of SIGIR'05*, Salvador, Brazil, August 2005. ACM.
- Oard, Soergel, Doermann, Huang, Murray, Wang, Ramabhadran, Franz, Gustman, Mayfield, Kharevych, and Strassel. (2004). Building an information retrieval test collection for spontaneous conversational speech. In *Proceedings of SIGIR'04*, Sheffield, U.K., July 2004. ACM.

Industry Research Experience

- Microsoft Research* – Research Intern 9/07 to 12/07
- Experimented with machine learning to model Live search users' interests.
 - Investigated search behavior and patterns in browsing following search
- America Online, Strategic Technologies Group* – Summer Research Intern 6/06 to 9/06
- Conducted research experiments in query log analysis and user modeling
 - Implemented query recommendation system based on Bayesian query models
- IBM Research, T. J. Watson Research Center* – Summer Co-Op 6/03 to 9/03
- Conducted research experiments in automated text categorization
 - Evaluated alternate NLP techniques in poly-hierarchical classification tasks

Academic Research Experience

- University of Maryland* – Student Research Fellow 9/05 to 9/07
- Designed and implemented experiments in user behavior modeling
 - Adapted NLP tools for query log analysis and query prediction
- University of Maryland* – Research Graduate Assistant 8/00 to 9/05
- *Institute for Advanced Computer Studies*
 - MALACH: Multilingual Access to Large Spoken Archives – developed resources for IR testing and evaluation, implemented categorization experiments, developed and tested machine translation resources
 - TDT – implemented language modeling system for multilingual topic detection and tracking, part of a DARPA technology evaluation at NIST
 - The Linguist's Search Engine – contributed interface designs for search tool that retrieves Web pages based on user-specified linguistic features
 - *College of Information Studies*
 - Human performance on WSD tasks – designed and conducted empirical study of factors affecting human judgments in word sense disambiguation
 - Teaching Assistant – tutored, graded, and guest lectured graduate courses on Information Technology, Digital Library Infrastructure, and Database Design

Applied Technology Experience

- Andromedia, Inc.* – Consulting Services Manager, Northeast region 1/99 to 6/99
- Managed installations of web traffic analysis and collaborative filtering tools
 - Customized rule-based systems for mission-critical business objectives
- @radical.media, inc.*
- Chief Technology Officer & Department Co-Director 12/96 to 7/98
- Oversaw software development for all new-media projects
 - Supervised technical staff of 12
- Head of Software Development 4/96 to 12/96
- Architect and lead developer for interactive marketing projects
 - Assembled and managed project-based technical teams
- Database Programmer 9/95 to 4/96
- Designed and implemented database-driven CGI applications
- Intelus Corporation* – Field Engineer/Database Programmer on Retainer 1/89 to 3/95
- Installed and supported health care document tracking/process flow systems

Professional Activities

Journal Reviews for:

- Journal of the American Society for Information Science & Technology.
- Infant and Child Development

Conference Committees

- Organizing co-chair for WWW'07 workshop on Query Log Analysis
- Review committee for ECIR 2008 poster submissions

Technical Qualifications

Databases: Oracle, Informix, MS SQL Server, Object Store, Lotus Notes, PostgreSQL
Operating Systems: Linux, Solaris, SCO OpenServer, AIX, OS/2 Warp and WindowsXP
Languages: Perl, C#, C++, Java, PL/SQL, AWK, SED and shell scripting