Judith L. Klavans, Ph.D.

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CURRENT POSITION:

- **University of Maryland, College Park, Maryland** 2005- present

  Research Professor, College of Information Studies (CLIS) 2004- present
  - Build research projects linking library and information studies and language technologies; participate in faculty-related activities at CLIS and contribute to the research infrastructure.
  - Principal Investigator on large multi-site Mellon Foundation funded project on the use of Computational Linguistics for Metadata Building (CLiMB). Research focuses on the uses of computational linguistics to identify information on images from related texts.
  - Co-principal investigator on DARPA-funded project under the Global Autonomous Language Exploitation (GALE) project. Research areas include developing automatic techniques for summarization, and task-based evaluation of output.

SELECTED FEDERAL APPOINTMENTS

- Member of Presidential Information Technology Advisory Committee (non-renewable term: 2002-04)
- Member of National Academy of Science Working Group on Planning for Catastrophe (term: 2003-2006)

PRIOR EXPERIENCE

- **University of Maryland, College Park, Maryland** 2005-2007
  Area Director of Technology Use, Center for Advanced Study of Language (CASL)
  - Coordinate interdisciplinary research efforts on language technology use in the newly-established University Affiliated Research Center at the University of Maryland.
  - Manage research components, budgets, subcontracts, and researchers in projects related to the human needs for new technologies, especially multilingual summarization.
  - Establish contact with user groups in government settings to evaluate and test emerging natural language technologies.

- **Director of Research, Center for Advanced Study of Language (CASL)** 2004-2005
  - Manage budgets, subcontracts, and researchers in over twenty projects on language at large government-funded research center.
  - Initiate research projects responsive to requirements of government for improving the performance of foreign language professionals.

- **Columbia University in the City of New York** 1992 - 2003

Director, Center for Research on Information Access (CRIA) 1995 - 2003
Founding Director of newly-funded research center. Mission was to build an interdisciplinary self-sustaining research center on digital libraries and digital applications in information management. Research on the integration of lexical semantic information into representations for multidocument summarization. Multilingual analysis using symbolic and statistical techniques. Identification of definitions and terms from consumer-oriented medical text for use in multimedia presentation system. Automatic extraction of descriptive metadata for digital libraries.

Co-Director, Digital Government Research Center (DGRC) 2000 - 2003
Department of Computer Science and CRIA
Research on unified access to heterogeneous databases. Co-director of joint Columbia–USC/ISI research center. Extraction of information from on-line terminologies for common ontology. Evaluation of new access mechanisms and interfaces with diverse user communities.

Research Scientist, Adjunct Associate Professor
Department of Computer Science 1992 - 1994
Performed research on extracting knowledge from large monolingual and bilingual corpora for natural language analysis and generation. Applied linguistic based techniques to large texts. Built lexical knowledge from parsed and tagged text.

- **AT&T Bell Laboratories** 1992 - 1994

Research Scientist (Consultant)
Department of Linguistics and Artificial Intelligence Research
Division of Multimedia Information Managment
Automatic acquisition of lexical knowledge for machine translation, combining symbolic and statistical methodologies. Extraction of terms and term variants. Used machine-readable dictionaries to extract concatenative units for text to speech.

- **IBM T.J. Watson Research Center** 1983 - 1992

Research Staff Member, Artificial Intelligence Department
Multimedia and Natural Language 1992
Used an automatically built lexical net in conjunction with a multi-media video clip system to retrieve images relevant to a user query. Resulted in patent, awarded 1993.

Lexical Systems Project 1985 - 1992

Developed and built large on-line lexicons for natural language systems, both monolingual and bilingual. Extracted lexical knowledge from machine readable dictionaries. Developed methodology to analyze both bilingual corpora for lexical correspondences between English and French, and monolingual corpora for the extraction of lexical semantic properties. Designed and implemented a database system for storing large parsed text for fast querying and retrieval.

Speech Synthesis 1983 - 1985

Enhanced text-to-speech system with linguistically-based word and phrase level rules, and intonational contouring. Developed diphones, analyzed and stored using linear predictive coding.

- **Massachusetts Institute of Technology** 1980 - 1983

Post-doctoral Research Fellow

National Institutes of Mental Health (NIMH) Independent Fellowship Award
Computational Linguistics and Psycholinguistic Research

Use of computational models to validate linguistic hypotheses concerning the status of clitics and inflection in linguistic theory. Used psycholinguistic and code-switching data as evidence.

Theoretical Linguistics: Research on the Syntax-Phonology Interface

Clitics and cliticization in lexical phonology and in Lexical Functional Grammar.

- **University of London, West London Polytechnic** 1972-1976

Instructor, English as a Second Language (ESL) (part-time)

University-level courses for degree-bound foreign students.

- **Boston University** 1969-1971

Instructor, English as a Second Language (part-time)

Beginning oral skills, advanced writing skills BU foreign students.

- **Massachusetts State Commission for the Blind** 1970

Curriculum development and teaching

Part of a team of three ESL teachers developing special materials in a pilot program to teach English to Spanish-speaking visually impaired students.

EDUCATION

Ph.D. Linguistics, 1980. University College, University of London (England).
Dissertation: "Some Aspects of a Theory of Clitics: The Syntax-Phonology Interface"

M.A. Linguistics, 1976, *summa cum laude*. University College, University of London.
Thesis: "Clitic Promotion in Spanish"

M.Ed. English as a Second Language Teaching, 1971. Boston University, Boston, Massachusetts.
Thesis: "Inductive and Deductive Methods of Teaching Writing to Adult Learners of English"

B.A. Spanish, Mathematics, 1968. Oberlin College, Oberlin, Ohio.

PATENTS

2003 - "Method for Identifying and Extracting Definitions from Text"
Patent Number (filed 2003, awarded 2005, awaiting patent number PCT/US02/30675)
Co-inventors: Judith L. Klavans, Smaranda Muresan

1999 - "Method and System for Topical Segmentation, Segment Significance, and Segment Function"
Patent Number 6,473,730
Co-inventors: Kathleen McKeown, Judith L. Klavans, Min-Yen Kan.

1997 - "Archiving and Retrieving Multimedia Objects Using Structured Indexes"
Patent Number 5,630,121
Co-inventors: Lisa Braden-Harder, Michele Kim, Judith L. Klavans, Wlodek Zadrozny.

PUBLICATIONS – Books

Klavans, Judith L. and Philip Resnik, eds. (1997). *The Balancing Act: Combining Symbolic and Statistical Approaches to Language*. MIT Press: Cambridge, Massachusetts.

Klavans, Judith L. (1994). *Clitics and Cliticization: The Interaction of Morphology, Phonology and Syntax*. Outstanding Dissertations in Linguistics Series. Garland Press: New York, New York.

BOOK CONTRIBUTIONS

Klavans, Judith L. and Members of the National Academy of Science Committee on Planning for Catastrophe. (2007) *Successful Response Starts with a Map: Improving Geospatial Support for Disaster Management.* National Academies Press: Washington DC.

Klavans, Judith L. (2004) "Text Summarization". *Berkshire Encyclopedia of Human-Computer Interaction.* William S. Bainbridge, editor. Berkshire Press, Great Barrington, Massachusetts.

Resnik, Philip and Judith L. Klavans (2003). "Applications of Language Technology". *Oxford Encyclopedia of Linguistics, 2nd edition*. William S. Frawley, editor. Oxford University Press: Oxford, England.

Tzoukermann, Evelyne, Judith Klavans, and Tomek Strzalkowski (2002). "Information Retrieval and Natural Language Processing". *Oxford Handbook of Computational Linguistics*. Ruslan Mitkov, editor. Oxford University Press: Oxford, England.

Klavans, Judith L. and Eduard Hovy (1999). "Multilingual (or Cross-lingual) Information Retrieval". *Linguistica Computazionale*. Pisa, Italy, pp. 35-56.

Klavans, Judith L. (1994). "Visions of the Digital Library: Views on Computational Linguistics and Semantic Nets in Information Retrieval". *Festschrift for Donald E. Walker*. Antonio Zampolli, Nicoletta Calzolari and Martha Palmer, editors. Kluwer, New York.

Klavans, Judith L. and Evelyne Tzoukermann (1992). "Morphology". *The Encyclopedia of Artificial Intelligence, Second Edition*. S. Shapiro, editor. John Wiley and Sons, New York.

Klavans, Judith L., Martin S. Chodorow, and Nina Wacholder (1992). "Building a Knowledge Base from Parsed Definitions". *Natural Language Processing: The PLNLP Approach*. George Heidorn, Karen Jensen, and Steve Richardson, editors. Kluwer, New York.

Klavans, Judith L. (1989). "Computational Linguistics". *Contemporary Linguistics: An Introduction.* Mark Aronoff, William O'Grady and Michael Dobrovolsky, editors. St. Martin's Press, New York, pp. 413-447. (updated and reprinted in second edition, 1995)

PUBLICATIONS – Refereed Journals

Elhadad, Noemie, Min-Yen Kan, Judith Klavans, and Kathleen McKeown (2005) "Customization in a Unified Framework for Summarizing Medical Literature", *Journal of Artificial Intelligence in Medicine*, 33(2):179-198.

Ambite, José Luis, Yigal Arens, Eduard H. Hovy, Andrew Philpot, Luis Gravano, Vasileios Hatzivassiloglou, and Judith Klavans (2002) "Simplifying Data Access: The Energy Data Collection Project". *IEEE Computer* 34(2): 47-54.

Klavans, Judith L. and Peter Schäuble (1998) "Multilingual Information Access". *Communications of the ACM* 41(4): 69.

Klavans, Judith L. and Evelyne Tzoukermann (1996) "Dictionaries and Corpora: Combining Corpus and Machine-readable Dictionary Data for Building Bilingual Lexicons". *Journal of Machine Translation* 10(3-4): 185-218.

Klavans, Judith L. and Martin Chodorow (1991) "Using a Morphological Analyzer to Teach Theoretical Morphology". *Journal of Computing and the Humanities* 5: 281-287.

Byrd, Roy J., Nicoletta Calzolari, Martin Chodorow, Judith L. Klavans, Mary S. Neff and Omneya A. Rizk (1987) "Tools and Methods for Computational Lexicology". *Computational Linguistics* 13(3-4): 219-240.

Klavans, Judith L. (1985) "The Independence of Syntax and Phonology in Cliticization". *Language* 61: 95-120.

Klavans, Judith L., Maria X. Edelstein and Sara Basson (1985) "Pause Structure in Synthetic Speech". *Journal of the Acoustical Society of America* Supplement 1, Volume 77-S54.

PUBLICATIONS – Conferences

Passonneau Rebecca, Roberta Blitz, David Elson, Angela Giral, and Judith Klavans (2006) "The CLiMB ToolKit: A Case Study of Iterative Evaluation in a Multidisciplinary Project", in *Proceedings of the International Conference on Language Resources and Evaluation (LREC)*. Genova, Italy.

Klavans, Judith. (2006) "Computational Linguistics for Metadata Building (CLiMB)", in *Proceedings of the OntoImage Workshop,* Language Resources and Evaluation Conference. Genova, Italy.

Muresan, Smaranda, Tudor Muresan, and Judith Klavans. (2004) "Inducing Constraint-based Grammars from a Small Semantic Treebank", in *The American Association of Artificial Intelligence* (*AAAI) Spring Symposium on Language Learning: An Interdisciplinary Perspective.* Stanford, California.

Klavans, Judith L., Samuel Popper, and Rebecca Passonneau (2003) "Tackling the Internet Glossary Glut: Automatic Extraction and Evaluation of Genus Phrases" in *The Association of Computing Machinery (ACM) Annual Special Interest Group conference on Information Retrieval (SIGIR), Workshop on The Semantic Web.* Toronto, Canada.

Davis, Peter T., David K. Elson, and Judith L. Klavans (2003) "Methods for Precise Named Entity Matching in Digital Collections". *Proceedings of the Joint Conference on Digital Libraries* (JCDL 2003). Houston, Texas.

Hovy, Eduard, Andrew Philpot, Judith L. Klavans, Ulrich Germann, and Peter T. Davis (2003) "Extending Metadata Definitions by Automatically Extracting and Organizing Glossary Definitions". *Proceedings of the National Conference on Digital Government Research*. Boston, Massachusetts.

Muresan, Smaranda, Samuel D. Popper, Peter T. Davis, and Judith L. Klavans (2003) "Building a Terminological Database from Heterogeneous Definitional Sources". *Proceedings of the National Conference on Digital Government Research*. Boston, Massachusetts.

Ambite, Louis J., Yigal Arens, Walter Bourne, Peter T. Davis, Steven Feiner, Eduard H. Hovy, Judith L. Klavans, Andrew Philpot, Samuel Popper, Ken Ross, Ju-Ling Shih, Peter Sommer, Surabhan (Nick) Temiyabutr, and Laura Zadoff (2002) "A Portal for Access to Complex Distributed Information about Energy". *Proceedings of the National Conference for Digital Government Research*. Los Angeles, California.

Kan, Min-Yen and Judith L. Klavans (2002a) "Using Librarian Techniques in Automatic Text Summarization for Information Retrieval". *Proceedings of the Joint Conference on Digital Libraries* (JCDL 2002). Portland, Oregon.

Kan, Min-Yen, and Judith L. Klavans (2002b) (Poster Session.) "Using the Annotated Bibliography as a Resource for Indicative Summarization". *Proceedings of the Language Resources and Evaluation Conference* (LREC 2002). Las Palmas, Spain.

Kan, Min-Yen, Judith L. Klavans, and Kathleen R. McKeown (2002) "Using the Annotated Bibliography as a Resource for Indicative Summarization". *Proceedings of the Language Resources and Evaluation Conference* (LREC 2002). Las Palmas, Spain.

Klavans, Judith L., Peter T. Davis and Samuel Popper (2002) "Building Large Ontologies using Web Crawling and Glossary Analysis Techniques". *Proceedings of the National Conference for Digital Government Research*. Los Angeles, California.

Kushniruk, Andre W., Min-Yen Kan, Kathleen R. McKeown, Judith L. Klavans and Vimla L. Patel (2002) "Evaluating the Content and Usability of an Experimental Text Summarization System and Three Web-Based Search Engines". *Proceedings of the Human Factors and Ergonomics 46th Annual Meeting* (HFES 2002). Baltimore, Maryland.

McKeown, Kathleen, Regina Barzilay, David Evans, Vasileios Hatzivassiloglou, Judith L. Klavans, Carl Sable, Barry Schiffman and Sergey Sigelman (2002) "Tracking and Summarizing News on a Daily Basis with Columbia's Newsblaster". *Proceedings of the 2002 Human Language Technology Conference* (HLT). San Diego, California.

Muresan, Smaranda, and Judith L. Klavans (2002) "A Method for Automatically Building and Evaluating Dictionary Resources". *Proceedings of the Language Resources and Evaluation Conference* (LREC 2002). Las Palmas, Spain.

Klavans, Judith L. and Richard A. Klavans (2001) "Do Patent Models Reveal Technological Capabilities?" Paper presented at the 221st American Chemical Society National Meeting. San Diego, California.

Klavans, Judith L. and Smaranda Muresan (2001a) "Evaluation of DEFINDER: A System to Mine Definitions from Consumer-oriented Medical Text". *Proceedings of the First ACM/IEEE-CS Joint Conference on Digital Libraries* (JCDL). Roanoke, Virginia, pp. 201-203.

Klavans, Judith L. and Smaranda Muresan (2001b) "Evaluation of the DEFINDER System for Fully Automatic Glossary Construction". *Proceedings of the American Medical Informatics Association (AMIA) Symposium*. Washington, D.C.

Klavans, Judith L. and Brian Whitman (2001) "Extracting Taxonomic Relationships from Online Definitional Sources Using LEXING". *Proceedings of the First ACM/IEEE-CS Joint Conference on Digital Libraries* (JCDL). Roanoke, Virginia, pp. 257-258.

McKeown, Kathleen R., Shih-Fu Chang, James Cimino, Steven K. Feiner, Carol Friedman, Luis Gravano, Vasileios Hatzivassiloglou, Steven Johnson, Desmond A. Jordan, Judith L. Klavans, Vimla Patel, Simone Teufel and Andre Kushniruk (2001) "PERSIVAL, A System for Personalized Search and Summarization over Multimedia Healthcare Information". *Proceedings of the First ACM/IEEE-CS Joint Conference on Digital Libraries* (JCDL). Roanoke, Virginia, pp. 331-340.

Wacholder, Nina, David K. Evans and Judith L. Klavans (2001) "Automatic Identification and Organization of Index Terms for Interactive Browsing". *Proceedings of the First ACM/IEEE-CS Joint Conference on Digital Libraries* (JCDL). Roanoke, Virginia, pp. 126-134.

Evans, David K., Judith L. Klavans and Nina Wacholder (2000) "Document Processing with LinkIT". RIAO 2000, *Recherche d'Informations Assistee par Ordinateur*. Paris, France, pp. 1336-1345.

Klavans, Judith L. (2000) "Building a Digital Library Research Program at Columbia University: Focusing on Language Technologies and Text Processing". *Kyoto International Conference on Digital Libraries: Research and Practice*. Kyoto University, Kyoto, Japan, pp. 148-156. (published by IEEE).

Klavans, Judith L. and Smaranda Muresan (2000) "DEFINDER: Rule-Based Methods for the Extraction of Medical Terminology and their Associated Definitions from On-line Text". *Proceedings of the American Medical Informatics Association (AMIA) Symposium*. Los Angeles, California, p. 1049.

Klavans, Judith L., Nina Wacholder and David K. Evans (2000) "Evaluation of Computational Linguistic Techniques for Identifying Significant Topics for Browsing Applications". *Proceedings of the Second International Conference on Language Resources and Evaluation* (LREC). Athens, Greece.

Wacholder, Nina, Judith L. Klavans and David K. Evans (2000) "Evaluation of Automatically Identified Index Terms for Browsing Electronic Documents". *Proceedings of the Joint Conference on Applied Natural Language Processing and the North American Chapter of the Association for Computational Linguistics* (ANLP-NAACL). Seattle, Washington, pp. 302-308.

Hatzivassiloglou, Vasileios, Judith L. Klavans and Eleazar Eskin (1999) "Detecting Similarity by Applying Learning over Indicators". *Proceedings of the Joint SIGDAT Conference on Empirical Methods in Natural Language Processing and Very Large Corpora (EMNLP-VLC), at the 37th Annual Meeting of the Association for Computational Linguistics*. University of Maryland: College Park, Maryland.

McKeown, Kathleen R., Judith L. Klavans, Vasileios Hatzivassiloglou, Regina Barzilay and Eleazar Eskin (1999) "Towards Multidocument Summarization by Reformulation: Progress and Prospects". *American Association for Artificial Intelligence* (AAAI) / *Innovative Applications of Artificial Intelligence* (IAAI). Orlando, Florida, pp. 453-460.

Klavans, Judith L. and Min-Yen Kan (1998) "The Role of Verbs in Document Analysis". *Proceedings of the Seventeenth International Conference on Computational Linguistics and Association for Computational Linguistics* (COLING-ACL). Montreal, Canada, pp. 680-686.

Klavans, Judith L., Kathleen R. McKeown, Min-Yen Kan and Susan Lee (1998) "Resources for the Evaluation of Summarization Techniques". *Proceedings of the 1st International Conference on Language Resources and Evaluation* (LREC), Antonio Zampolli, ed. Granada, Spain. pp. 899-902.

Molholt, Pat, Celina Imielinska, Judith L. Klavans, Lisa Laino-Pepper, Ewa Soliz, Hilary Schmidt, Richard Thumann, Judith Venuti, Nina Wacholder and Ryan Villamil (1998) "Vesalius Project: Creating a Computer Based Anatomy Curriculum". *Proceedings of the 2nd Visible Human Project Conference*. National Institute of Health: Bethesda, Maryland.

Wacholder, Nina, Celina Imielinska, Judith L. Klavans, Ewa Soliz and Pat Molholt (1998) "Semantic Relations in a Medical Digital Library". *Proceedings of the IEEE Conference on Advances in Digital Libraries Conference* (ADL). Santa Barbara, California, pp. 290-298.

Jacquemin, Christian, Judith L. Klavans and Evelyne Tzoukermann (1997) "Expansion of Multi-Word Terms for Indexing and Retrieval Using Morphology and Syntax". *Proceedings of the 35th Annual Meeting of the Association for Computational Linguistics and 8th Conference of the European Chapter of the Association for Computational Linguistics*. Madrid, Spain.

Tzoukermann, Evelyne, Judith L. Klavans and Christian Jacquemin (1997) "Effective Use of Natural Language Processing Techniques for Automatic Conflation of Multi-

Word Terms: The Role of Derivational Morphology, Part of Speech Tagging, and Shallow Parsing". *Proceedings of the ACM-Special Interest Group on Information Retrieval* (SIGIR). Philadelphia, Pennsylvania, pp. 148-155.

Klavans, Judith L. (1996) "Digital Libraries and Other Language-relevant Technologies". *Proceedings of the Roundtable on Technology for Language Assessment and Learning*, chaired by Lawrence T. Frase, *Proceedings of the 18th Annual Language Testing Research Colloquium*. Tampere, Finland.

Klavans, Judith L. and Evelyne Tzoukermann (1994) "Machine Readable Dictionaries in Text-to-Speech Systems". *Proceedings of the Fifteenth International Conference on Computational Linguistics* (COLING). Kyoto, Japan.
Tzoukermann, Evelyne and Judith L. Klavans (1994) "The Automatic Induction of Concatenative Units from Machine Readable Dictionaries and Corpora for Speech Synthesis". *Proceedings of the Acoustical Society of America* (ASA). Boston, Massachusetts.

Tzoukermann, Evelyne and Judith L. Klavans (1994) "Inducing Concatenative Units from Machine Readable Dictionaries and Corpora for Speech Synthesis". *Proceedings of the International Conference on Spoken Language Processing* (ICSLP). Yokohama, Japan.

Klavans, Judith L. and Martin S. Chodorow (1992) "Degrees of Stativity: The Lexical Representation of Verb Aspect". *Proceedings of the Fourteenth International Conference on Computational Linguistics* (COLING). Nantes, France.

Klavans, Judith L., Martin S. Chodorow and Nina Wacholder (1990) "From Dictionary to Knowledge Base via Taxonomy". *Proceedings of the Sixth Conference of the University of Waterloo Centre for the New Oxford English Dictionary and Text Research: Electronic Text Research*. University of Waterloo: Waterloo, Canada.

Klavans, Judith L. and Evelyne Tzoukermann (1990a) "Linking Bilingual Corpora and Machine Readable Dictionaries with the BICORD System". *Proceedings of the Sixth Conference of the University of Waterloo Centre for the New Oxford English Dictionary and Text Research: Electronic Text Research*. University of Waterloo: Waterloo, Canada.

Klavans, Judith L. and Evelyne Tzoukermann (1990b) "The BICORD System: Combining Lexical Information from Bilingual Corpora and Machine Readable Dictionaries". *Proceedings of the Thirteenth International Conference on Computational Linguistics* (COLING). Helsinki, Finland.

Klavans, Judith L. and Evelyne Tzoukermann (1989) "Corpus-Based Lexical Acquisition for Translation Systems". *Proceedings of the Sixth Israeli Conference on Artificial Intelligence and Computer Vision*. Tel Aviv, Israel.

Klavans, Judith L. (1988a) “Building a Computational Lexicon using Machine Readable Dictionaries”. *Proceedings of the Third International Congress of the European Association for Lexicography*. Budapest, Hungary.

Klavans, Judith L. (1988b) “COMPLEX: A Computational Lexicon for Natural Language Systems”. *Proceedings of the Twelfth International Conference on Computational Linguistics* (COLING). Budapest, Hungary.

Anshen, Frank, Mark Aronoff, Roy J. Byrd and Judith L. Klavans (1986) “The Role of Etymology and Word Length in English Word Formation”. *Proceedings of the Second Annual Conference of the Centre for the New Oxford English Dictionary and Text Research: Advances in Lexicology*. University of Waterloo: Waterloo, Canada.

Byrd, Roy J., Judith L. Klavans, Mark Aronoff and Frank Anshen (1986) “Computer Methods for Morphological Analysis”. *Proceedings of the 24th Annual Meeting of the Association for Computational Linguistics* (ACL). Buffalo, New York.

Klavans, Judith L., Jonas N. A. Nartey, Clifford Pickover, David Reich, Mary Beth Rosson and John C. Thomas (1984a) “WALRUS: High-Quality Text-to-Speech Research System”. *Proceedings of the IEEE Conference on Speech Synthesis and Recognition*. pp. 19-28.

Klavans, Judith L., Jonas N. A. Nartey, Clifford Pickover, David Reich, Mary Beth Rosson and John C. Thomas (1984b) “The Walrus Speaks: A Developmental System for Speech Synthesis”. *Proceedings of the Conference on Voice I/O Systems Applications* (AVIOS).

Klavans, Judith L. (1983a) “The Morphology of Cliticization”. *Proceedings of the Fifteenth Annual Meeting of the Chicago Linguistic Society*. Parasession on the Interplay of Phonology, Morphology, and Syntax. University of Chicago: Chicago, Illinois.

Klavans, Judith L. (1983b) “The Syntax of Code-Switching: Spanish and English”. *Proceedings of the Linguistic Symposium on Romance Languages*. Chapel Hill, North Carolina. Volume 14, John Benjamins Publishers.

Klavans, Judith L. (1982a) “Configuration in Non-configurational Languages”. *Proceedings of the First West Coast Conference on Formal Linguistics*. Stanford, California.

Klavans, Judith L. (1982b) “On Stress/Accent and the Phonology of Cliticization: Cliticization and Level-Ordered Phonology of Cliticization”. *Linguistic Society of America (LSA) Annual Meeting*. University of Maryland: College Park, Maryland.

Klavans, Judith L. and Tamsin Donaldson (1981) “Ngiyambaa Possessive Enclitics and Cliticization Theory”. *Linguistic Society of America (LSA) Annual Meeting*. New York, New York.

Klavans, Judith L. (1979) "On Clitics as Words". *Proceedings of the Eleventh Annual Meeting of the Chicago Linguistic Society*. The Elements: Parasession on Linguistic Units and Words. University of Chicago: Chicago, Illinois.

PUBLICATIONS – Workshops with Edited Proceedings

McKeown, Kathleen R., Regina Barzilay, Sasha Blaire-Goldensohn, David Evans, Vasileios Hatzivassiloglou, Judith L. Klavans, Ani Nenkova, Barry Schiffman and Sergey Sigelman (2002) "The Columbia Multi-Document Summarizer for Document Understanding Conference (DUC) 2002" *Proceedings of the Workshop on Text Summarization.* Philadelphia, Pennsylvania.

Ambite, José Luis, Yigal Arens, Eduard Hovy, Judith L. Klavans and Andrew Philpot (2001) "Scalable Access and Integration of Statistical Data for Digital Government". Armed Forces Communications and Electronics Association (AFCEA) Federal Database Colloquium and Exposition. San Diego, California.

Barr, Valerie B. and Judith L. Klavans (2001) "Verification and Validation of Language Processing Systems: Is It Evaluation?". *Proceedings of the Workshop on Evaluation Methodologies for Language and Dialogue Systems at the Joint Association for Computational Linguistics/Association for Computational Linguistics European Chapter (ACL/EACL) Conference*. Toulouse, France.

Hatzivassiloglou, Vasileios, Judith L. Klavans, Melissa L. Holcombe, Regina Barzilay, Min-Yen Kan and Kathleen R. McKeown (2001) "SimFinder: A Flexible Clustering Tool for Summarization". *Proceedings of the North American Chapter of the Association for Computational Linguistics* (NAACL), Workshop on Summarization. Pittsburgh, Pennsylvania, pp. 41-49.

Kan, Min-Yen, Kathleen R. McKeown and Judith L. Klavans (2001a) "Applying Natural Language Generation to Indicative Summarization". *Proceedings of the 8th European Workshop on Natural Language Generation*. Toulouse, France, pp. 92-100.

Kan, Min-Yen, Kathleen R. McKeown and Judith L. Klavans (2001b) "Domain-Specific Informative and Indicative Summarization for Information Retrieval". *Proceedings of Workshop on Text Summarization: Document Understanding Conference/SIGIR*. New Orleans, Louisiana.

Klavans, Judith L., Walter Bourne, Eduard Hovy and Deniz Sarioz (2001) "Terminology Management and Large Ontologies for Digital Government". *Proceedings of the Metatopia 2001 Conference*. NIST. Gaithersberg, Maryland.

Muresan, Smaranda, Evelyne Tzoukermann and Judith L. Klavans (2001) "Combining Linguistic and Machine Learning Techniques for Email Summarization". *Proceedings of*

the Computational Natural Language Learning (CoNLL) 2001 Workshop at the Joint Association for Computational Linguistics/Association for Computational Linguistics European Chapter (ACL/EACL) Conference. Toulouse, France.

Tzoukermann, Evelyne, Smaranda Muresan and Judith L. Klavans (2001) "GIST-IT: Summarizing Email using Linguistic Knowledge and Machine Learning". *Proceedings of the Human Language Technology and Knowledge Management (HLT/KM) Workshop at the Joint Association for Computational Linguistics/Association for Computational Linguistics European Chapter (ACL/EACL) Conference*. Toulouse, France.

Kan, Min-Yen, Judith L. Klavans and Kathleen R. McKeown (1998) "Linear Segmentation and Segment Relevance". *Proceedings of 6th International Workshop on Very Large Corpora* (WVLC-6). Montreal, Quebec, Canada, pp. 197-205.

Klavans, Judith L. and Christian Jacquemin (1997) "A Natural Language Approach to Multi-Word Term Conflation". *Proceedings of the Third DELOS Workshop, Cross-Language Information Retrieval, the European Research Consortium for Informatics and Mathematics (ERCIM) Workshop series*. Zurich, Switzerland. pp. 33-40.

Ide, Nancy and Judith L. Klavans (1996) "The Text Encoding Initiative Guidelines and Their Application to Building Digital Libraries". *Proceedings of the First ACM Conference on Digital Libraries*. Bethesda, Maryland, pp. 184-185.

Klavans, Judith L. and Virginia Tantral (1996) "Analysis of Documents for Summarization: The Role of Verbs". *Proceedings of the International Workshop on Predicative Forms in Natural Language and Lexical Knowledge Bases*. Toulouse, France.

Klavans, Judith L. (1995a) "Representation & Acquisition of Lexical Knowledge - Polysemy, Ambiguity, & Generativity". *Proceedings of the AAAI Spring Symposium*. Stanford, California.

Klavans, Judith L. (1995b) "The role of Verbs in Summarization". *Proceedings of the First Annual Workshop for the IFIP Working Group for Natural Language Processing (12.4) on the Computational Lexical Semantics of Verbs*. University of Pennsylvania: Philadelphia, Pennsylvania.

Black, Ezra, Steven Abney, Dan Flickinger, Claudia Gdaniec, Ralph Grishman, Philip Harrison, Donald Hindle, Robert Ingria, Frederick Jelinek, Judith Klavans, Mark Liberman, Mitch Marcus, Salim Roukos, Beatrice Santorini, and Tomek Strzalkowski (1991) "A Procedure for Quantitatively Comparing the Syntactic Coverage of English Grammars". *Proceedings of the DARPA Workshop on Speech and Natural Language*. Asilomar, California.

Boguraev, Branimir, Roy Byrd, Judith L. Klavans and Mary Neff (1989) "From Structural Analysis of Lexical Resources to Semantics In a Lexical Knowledge Base". in

Proceedings of the Workshop on Lexical Acquisition, International Joint Conference on Artificial Intelligence (IJCAI), Uri Zernik, editor. Detroit, Michigan.

PUBLICATIONS – Online Contributions

Oard, Douglas, Carol Peters, Miguel Ruiz, Robert Frederking, Judith L. Klavans and Padraic Sheridan (1999) "Multilingual Information Discovery and AccesS (MIDAS): A Joint ACM DL '99/ ACM SIGIR '99 Workshop." *D-Lib Magazine*. 1999. <http://www.dlib.org/dlib/october99/10oard.html>.

Davis, James R. and Judith L. Klavans (1997) "Workshop Report: The Technology of Terms and Conditions." *D-Lib Magazine*. 1997. <http://www.dlib.org/dlib/june97/06davis.html>.
Klavans, Judith L., and Peter Schäuble (1997) "Report on the EU-NSF Working Group on Multilingual Information Access." *D-Lib Magazine*. 1997. <http://www.dlib.org/dlib/december97/12clips.html>.

Davis, James R. and Judith L. Klavans (1996) "Workshop Summary: Technology Issues for Terms and Conditions." *D-Lib Magazine*. 1996. <http://www.dlib.org/dlib/october96/10clips.html>

Klavans, Judith L. (1996) "New Center at Columbia University for Digital Library Research: Fostering Interdisciplinary Research and Bridging Cultural Clashes." *D-Lib Magazine*. 1996. <http://www.dlib.org/dlib/march96/klavans/03klavans.html>

MISCELLANEOUS PUBLICATIONS and SYTEM DEMONSTRATIONS

Klavans, Judith L. (2005) "The Role of Cognitive Capability in Capability Engineering", in *Insight, International Council on Systems Engineering.* Invited contribution in special issue on Capability Engineering for Systems of Systems.

Blitz, Roberta and Angela Giral, Rebecca Passonneau and Judith L. Klavans (2004) "Using Computational Linguistic Techniques to Harvest Image Descriptors", at *The Visual Resources Association* annual conference, Portland, Oregon.

Co, Min-San, Judith Klavans, Rebecca Passonneau, Walter Bourne, Peter Sommer (2004) *GetGloss: A System For Web-Crawling To Extract And Merge Terminologies Across Agencies*, system demonstration presented at the dg.2004 National Conference on Digital Government Research, Seattle, Washington.

Evans, David Kirk and Judith L. Klavans (2004) *Columbia Newsblaster: Multilingual News Summarization on the Web*, system demonstration at the North American Association for Computational Linguistics (NAACL), Boston, Massachusetts.

McKeown, Kathleen and Regina Barzilay, John Chen, David Elson, David Evans, Judith Klavans, Ani Nenkova, Barry Schiffman, and Sergey Sigelman (2004) *Columbia's Newsblaster: New Features and Future Directions* system demonstration at the North American Association for Computational Linguistics (NAACL) and Human Language Technology (HLT) conference, Edmonton, Canada.

Amery, Heather and Reyes Mila, eds. (1979) *The First Thousand Words in Spanish, with Easy Pronunciation Guide.* Pronunciation guide by Judith L. Klavans. Usborne Publishing Ltd: London, England.

PUBLICATIONS IN PREPARATION (to be submitted within 3 months)

Klavans, Judith L. (in preparation) "Computational Linguistics for Metadata Building (CLiMB): Using Natural Language Processing to Identify Metadata for Improving Image Access" To be submitted to the *Journal of the American Society for Information Science and Technology.*

Klavans, Judith L. and Smaranda Muresan (in preparation) "Text Data Mining for Definitions" To be submitted to the *Journal of Natural Language Engineering (NLE)*.

Madnani, Nitin, Bonnie Dorr, Necip Fazil, and Judith Klavans (in preparation) "Sentential Ordering in Multidocument Summarization: Algorithms and Evaluation" To be submitted to a Workshop on Summarization at the Annual Conference of the Association for Computational Linguistics (ACL). Due in March 2007.

Sidhu, Tandeep, Judith L. Klavans and Jimmy Lin (2007, in preparation) "Disambiguation of Domain-Specific Text Using Specialized Thesauri (tentative title)" To be submitted to the *Joint Conference on Digital Libraries (JCDL),* due on January 21, 2007.

Zhang, Pengyi, Lynne Plettenberg, Judith Klavans, Doug Oard and Dagobert Soergel (2007) "Utility Evaluation of Mutilingual Multidocument Summarization in the Rosetta System: Lessons from Users (tentative title)" To be submitted to the *American Society for Information Science & Technology (ASIST),* due on January 22, 2007.

EDITORSHIPS

Encyclopedia: Klavans, Judith L. (2002) Area Editor for Computational Linguistics for the *Oxford Encyclopedia of Linguistics, Second Edition*. William S. Frawley, editor. Oxford University Press: Oxford, England.

Journal: Journal of Machine Translation – Special Issue on the Lexicon (1994-1995) Co-editor with Dr. Bonnie J. Dorr.

EDITORSHIPS – WORKSHOPS

Johnson, Stephen, Udo Hahn, Judith Klavans, editors (2002) *Natural Language Processing in the Biomedical Domain.* Association for Computational Linguistics. University of Pennsylvania, Philadelphia, Pennsylvania.

Klavans, Judith L. and Julio Gonzalo (2000) *Workshop on Recent Advances in Natural Language Processing and Information Retrieval.* Hong-Kong.

Kambayashi, Yahiko and Judith L. Klavans, editors (2000) *Kyoto International Conference on Digital Libraries: Research and Practice*. Kyoto University, Kyoto, Japan.

Arms, Caroline, Judith L. Klavans, and Donald J. Waters, editors (1999) *Enabling Access in Digital Libraries: A Report on a Workshop on Access Management*. Council on Library and Information Resources. Washington, D.C.

Klavans, Judith L. and Peter Schäuble, editors (1997) *Multilingual Information Access*. European Research Consortium for Informatics and Mathematics. Pisa, Italy.

Ide, Nancy and Judith L. Klavans, editors (1996) *The Text Encoding Initiative and Digital Libraries*. Association for Computing Machinery. Washington, D.C.

Klavans, Judith L. and James R. Davis, editors (1996) *Technologies for Terms and Conditions*. Digital Library Initiative – Phase 1. University of Illinois: Urbana-Champaign, Illinois.

Klavans, Judith L., editor (1995) Representation and Acquisition of Lexical Knowledge: Polysemy, Ambiguity, and Generativity. AAAI. Stanford, California.

TECHNICAL REPORTS

David Evans, Kathleen McKeown, and Judith Klavans. Similarity-based multilingual multi-document summarization. Technical report, Columbia University, 2005. CUCS-014-05.

Tzoukermann, Evelyne and Judith L. Klavans (1993) “Combining Dictionaries and Bilingual Corpora Information”. AT&T Bell Laboratories.

Klavans, Judith L., Roy J. Byrd, Nina Wacholder and Martin S. Chodorow (1991) “Taxonomy and Polysemy”. Technical Report RC 16443 (#73060), IBM T.J. Watson Research Center.

Klavans, Judith L. (1991) “The Lexicon as a Black Box in the Evaluation of NLP Systems”. Unpublished Technical Report, IBM T.J. Watson Research Center.

Boguraev, Branimir K., Roy J. Byrd, Judith L. Klavans and Mary S. Neff (1990) "From Structural Analysis of Lexical Resources to Semantics in a Lexical Knowledge Base". Research Report RC 15427 (#68655), IBM T.J. Watson Research Center. International Joint Conference on Artificial Intelligence '89, Lexicon Workshop.

Chodorow, Martin and Judith L. Klavans (1989) "Locating Syntactically Defined Target Patterns in Text Corpora". Unpublished Research Report. IBM T.J. Watson Research Center.

Klavans, Judith L. and Nina Wacholder (1988) "Documentation of Features and Attributes in UDICT". Research Report RC 14251 (#63819), IBM T.J. Watson Research Center.

Klavans, Judith L., Sara H. Basson, Maria X. Edelstein and Suzi Pollock (1985) "Intonational Structure in Synthetic Speech: Noun Compounding". Research Report RC 11460 (#51503), IBM T.J. Watson Research Center.

Thomas, John C., Jonas N. A. Nartey, Mary Beth Rosson and Judith L. Klavans (1984) "The Role of Nasalization in the Perception of Synthesized Speech". Research Report RC 10810 (#48426), IBM T.J. Watson Research Center.

Thomas, John C., Judith L. Klavans, Jonas N. A. Nartey, Clifford Pickover, David Reich and Mary Beth Rosson (1984) "WALRUS: A Development System for Speech Synthesis". Research Report RC 10626 (#47663), IBM T.J. Watson Research Center.

TUTORIALS

2003 – Research on Semantic Interoperability from the Digital Government Research Center
Osaka Prefecture, Kansai Central Government Council, Osaka, Japan

2002 - Digital Libraries in Health Applications
DELOS International Summer School on Digital Library Technologies (ISDL 2002).

2000 - New Directions in Multilingual Information Access
Annual Meeting of the Special Interest Group on Information Retrieval (SIGIR), Athens, Greece (joint with Peter Schäuble, ETH-Zurich).

1999 - Multilingual Information Access
Fourth ACM Conference on Digital Libraries (DL '99), Berkeley, California (joint with Peter Schäuble, ETH-Zurich).

1998 - Databases in Digital Libraries
Invited tutorial, on "Databases in Digital Libraries: Where Computer Science and Information Management Meet". 1998 ACM Symposium on Principles of Database Systems (PODS), Seattle, Washington.

1998 - Multilingual Information Access
"Multilingual Information Access: Finding the Facts in a Global Information Age". Annual Meeting of the Society for Competitive Intelligence Professionals, Chicago, Illinois (joint with E. Tzoukermann, Lucent-Bell Laboratories).

1998 - Metadata and Content-Based Approaches to Resource Discovery
European Conference on Digital Libraries (ECDL), Crete, Greece (joint with Thomas Baker, Thailand).

1996 - Finding Information on the Internet: A Multilingual Perspective
Invited tutorial, at the European Meeting of the Society for Competitive Intelligence Professionals, Vienna, Austria.

1996 - Keeping Up with Information Growth on the Web
Annual Meeting of the Society for Competitive Intelligence Professionals, Arlington, Virginia.

1995 - Reusability, Interchangeability, and Compatibility: Answering the Questions of Text Encoding Standards
ACM-sponsored Special Interest Group in Information Retrieval (SIGIR) annual conference, Seattle, Washington (joint with Michael Sperberg-McQueen, University of Illinois-Chicago, and Lou Burnard, Oxford University).

1990 - The Role of Large Corpora in Natural Language Processing
Thirteenth International Conference on Computational Linguistics (COLING). Helsinki University. 12-Hour Tutorial (co-taught with Patrick Hanks, Oxford University Press).

WORKSHOPS AND CONFERENCES ORGANIZED

November 2000 - Kyoto International Conference on Digital Libraries
Research and Practice. Kyoto University, Kyoto, Japan (co-organized with Yahiko Kambayashi, Gio Wiederhold, Werner Winiwarter and Hiroyuki Tarumi).

August 1999 - Multilingual Information Discovery and AccesS (MIDAS)
A Joint ACM DL '99 / ACM SIGIR '99 Workshop (co-organized with D. Oard, C. Peters, M. E. Ruiz, R. Frederking, and P. Sheridan).

February 1999 - Enabling Access in Digital Libraries
Council on Library & Information Resources Workshop on Access Management. Washington D.C. (co-organized with Donald J. Waters, Digital Library Federation).

November 1997 - Multilingual Information Access
Joint European Union (EU) and NSF Sponsored Working Group on Multilingual Information Access for Digital Libraries. Columbia University, Arden Homestead, Arden, New York (co-chair: Dr. Peter Schäuble, ETH-Zurich).

September 1996 - Technologies for Terms and Conditions
NSF Sponsored Workshop on intellectual property issues for digital libraries. Columbia University Arden Homestead, Arden, New York (co-PI: James R. Davis, Xerox-PARC).

March 1996 - The Text Encoding Initiative and Digital Libraries
Workshop at DL-96, sponsored by the Association for Computing Machinery ACM, Chevy Chase, Maryland (co-organized with Nancy Ide, Vassar College).

March 1995 - Representation and Acquisition of Lexical Knowledge
Polysemy, Ambiguity, and Generativity. AAAI Spring Symposium, Stanford, California.

February 1995 - Linguistic Science and Language Technology
Machines and Human Language. Symposium at the American Association for the Advancement of Science (AAAS), Atlanta, Georgia (co-chair: Stephen Anderson, Yale University).

January 1995 - Perspectives on Computational Linguistics
Symposium for the Annual Meeting of the Linguistics Society of America, Boston, Massachusetts.

July 1994 - The Balancing Act: Combining Symbolic and Statistical Approaches to Language
Workshop at the Annual Meeting of the Association for Computational Linguistics, Las Cruces, New Mexico (co-organized with Philip Resnik, Sun Microsystems).

SELECTED PRESENTATIONS

November 2006 - Drexel University, Invited talk
"Using Computational Linguistics to Automatically Extract Metadata from Specialized Texts: The CLiMB Project. "+

October 2006 - i-Conference 2006, University of Michigan
"Digital Libraries as Collaborative Structured Information Spaces"

May 2005 – Department of Homeland Security, Workshop on Information Management, **Alexandria, VA.**
"Text Data Mining and Information Overload: Solutions Using Distillation"

February 2005 – 5th National Conference on Digital Government Research – dg.o 2005
Invited Keynote Panelist: "Digital Government Research in the Academy**"**
DG.O 2005: 16-17

December 2004 – Naval Surface Warfare Center, Dahlgren Division, Systems Research & Technology Departmentt
Invited Speaker: "Language Technology Research and National Security"

January 2004 – 37th Hawaii International Conference on System Sciences (HICSS)
Invited Plenary Lecture in the Minitrack on Information Retrieval and Digital Library Applications
"Multilingual Text Summarization of Online News**"**

June 2003 - NSF Workshop on Digital Information Creation and Management, Ballston, Va.
"The Role of NLP in Improving Access to Digital Collections"

May 2003 - HLT/NAACL
"Columbia's NewsBlaster: New Features and Future Directions" (McKeown *et al*.)

April 2003 - Coalition for Networked Information (CNI), Washington, D. C.
"Exploring Computational Linguistics for Metadata Building (CLiMB)"

April 2003 – Association of College and Research Libraries (ACRL), Charlotte, NC.
"The Role of Research in Libraries: Columbia University's Center for Research on Information Access"

2001 - JCDL Workshop on the Technology of Phrase Browsing, Roanoke, VA.
"Browsing and Phrases: Lessons from the Trenches"

2000 - Information Technology and Federal Statistics, Interface 2000, New Orleans, LA. "The Role of Ontologies in Statistical Information Seeking"

1998 - New York Academy of Science, New York, NY
"New Technologies in Computer Science for Digital Libraries"

1997 - Grace Hopper Celebration of Women in Computing, San Jose, CA
Invited keynote: "The Digital Library and the Future"
Video Available through University Video Communications.

1997 - School of Communication and Library Science, Rutgers University, New Brunswick, NJ
"Technology Issues for Intellectual Property"

1997 - Institute for Advanced Computer Study, University of Maryland, College Park, MD
"Text Analysis for Summarization"

1996 - Digital Content, UC Berkeley, Berkeley Center for Law and Technology, Berkeley, CA
"Electronic Contracting for Digital Content"

1995 - IFIPS Computational Lexical Semantics of Verbs, University of Pennsylvania, Philadelphia, PA
"Lexical Semantic Nets in Summarization"

1994 - Natural Language Techniques and Technology in Assessment and Education, Educational Testing Service, Princeton, NJ
Invited speaker, "Setting an Agenda for Creating Educational Technology"

1994 - Technology in Context: A Critical Examination of Technology in Education, Bank Street College of Education, New York, NY
Invited workshop leader, "The Digital Library and the Virtual Classroom"

1993 - Universals in the Lexicon, Dagstuhl Castle, Saarbrucken, Germany
"Lexical Semantic Universals and Corpus Analysis"

1989 - Seminar on the Lexicon, University of Helsinki, Helsinki, Finland
Invited talk, plenary session, "Lexical Information from MRD's and Corpora: Building Monolingual and Bilingual Lexicons"

1987 - Lexicon Workshop at the LSA Linguistics Institute, Stanford University, Stanford, CA
"Semantic Information in Machine-Readable Dictionaries"

1985 - The Linguistic Society of America (LSA), Seattle, WA
"Acoustic Correlates of Stress in Noun Compounds" (with S. Basson)

1984 - The IBM Seminar on Natural Language Processing, Davos, Switzerland
"The Use of a Syntactic Parser as a Front-end for a Text-to-Speech System"

1983 - The Chicago Linguistic Society, Chicago, IL
Invited talk, plenary session, "The Morphology of Cliticization"

1982 - The Linguistic Society of America (LSA), Boston, MA
"On Stress/Accent and the Phonology of Cliticization"

1981 - The Linguistic Society of America (LSA), New York, NY
"Clitic Positioning and Clitic Types"

1980 - The Linguistic Society of America (LSA), New York, NY
"Ngiyamaa Possessive Enclitics and Cliticization Theory" (with T. Donaldson)

TEACHING

1994 - Columbia University Department of Computer Science
New course: Computing and the Humanities (using Internet resources)

1993 - Ohio State University Summer Institute in Linguistics
The Role of Large Corpora in Natural Language Processing

1984-1989 - City University of New York - Graduate Center N.Y.,

- Graduate seminar: Computational Lexical Semantics (1991)
- Graduate seminar: Natural Language Processing, Queens College (1989)
- Graduate seminar: Theoretical Morphology (1984, 1987)
- Graduate seminar: Computational Morphology (1986, co-taught with Mark Aronoff, LSA Summer Linguistics Institute)

1979 - State University of New York at Buffalo
Linguistic Analysis of Abnormal Language

1976-78 - University of London, England
Instructor of Linguistics

1974-1978 International House London, London, England
Instructor of English as a Second Language

1973-74 - University of Colorado, Extension Division at Pine Ridge, South Dakota Lakota Indian Reservation
Instructor, Remedial English and Language Skills

1972-73 - Massachusetts State Commission for the Blind
Instructor, English as a Second Language to Spanish-speaking visually-impaired (pilot program)

1970-72 - Boston University, Boston, Massachusetts
Instructor, English as a Second Language

Ph.D. DISSERTATION COMMITTEES: Computer Science and Linguistics

2006-present: New Methods for Utility Evaluation in Developing Multilingual Multimedia Video and Text Analysis Systems (tentative title), Pengyi Zhang, College of Information Studies, University of Maryland (Co-Advisor)

2005-present: Multilingual Multidocument Summarization (tentative title), Nitin Madnani, Department of Computer Science, University of Maryland (Co-Advisor)

2000-2006: Automatic Text Mining for Medical Digital Libraries, Smaranda Muresan, Department of Computer Science, Columbia University. (Primary Advisor)

1999-2005: Indentifying Similarity in Text: Multilingual Analysis for Summarization, David K. Evans, Department of Computer Science, Columbia University. (Co-Advisor)

1996-2002: Analysis Procedures for Summarization, Min-Yen Kan, Department of Computer Science, Columbia University. (Primary co-advisor)

1994-2000: A New Method of Cut-and-Paste Summarization, Hongyan Jing, Department of Computer Science, Columbia University. (Co-advisor)

1992-1997: Genetic Induction of Corpus Analysis Algorithms for Aspectual Classification, Eric V. Siegal, Department of Computer Science, Columbia University. (Co-advisor)

1985-1989: Representations of Multiply-suffixed words: Implications for Grammatical and Psychological Models of the Lexicon, Kathleen Kane, CUNY Graduate Center. (Primary Advisor)

GRANTS AWARDED

Defense Advanced Research Projects Agency (DARPA)

- "Global Autonomous Language Exploitation (GALE)

Award to IBM TJ Watson Research, Subcontract to University of Maryland Institute for Advanced Computer Science (UMIACS), University of Maryland.
Develop components of end-to-end system for taking video and text input from streaming news, using speech recognition and machine translation to create an English version of input, and then create a distilled summary of results based on a user query or user profile. Klavans is responsible for working with Dorr on multilingual multidocument summarization, and with Oard on utility evaluation of system.
UMD co-PI with Doug Oard, Amy Weinberg, Philip Resnik, Jimmy Lin.
February 2005 – January 2008.

Andrew W. Mellon Foundation, awarded September 2005

- "Computational Linguistics for Metadata Building (CLiMB): CLiMB-2 at the University of Maryland"

College of Information Studies (CLIS), University of Maryland.

Reimplement CLiMB prototype and test with users for user evaluation. User group will be catalogers and image searchers. Expand partnerships. Add collections and partners in landscape and vernacular architecture. Test new computational linguistics techniques for filtering and selecting metadata. Determine mapping techniques for the use of thesaural information. Test computational methods on different text types.
Judith L. Klavans (co-PI) and Marilyn Domas White (co-PI).
$841,000 September 2005 – August 2007.

Andrew W. Mellon Foundation, awarded January 2002

- "Planning Grant: Computational Linguistics for Metadata Building (CLiMB)"

College of Information Studies (CLIS), University of Maryland.
Establish new partnerships and build new team to bring the CLiMB project from Columbia University, Center for Research on Information Access, to the University of Maryland, College of Information Studies.
Judith L. Klavans (co-PI) and Marilyn Domas White (co-PI).
$50,000 January 2005 - September 2005.

Andrew W. Mellon Foundation, awarded January 2002

- "Computational Linguistics for Metadata Building (CLiMB)"

Center for Research on Information Access (CRIA), Columbia University Libraries.
Develop and assess the use of existing computational linguistic techniques as applied to the identification and extraction of rich descriptive metadata from text.
Judith L. Klavans (PI). $542,000 March 2002 - February 2004.

NSF, Digital Government Program, awarded August 2001

- "Digital Government Research Center: Bringing Complex Data to Users"

Joint Columbia and USC/ISI. Department of Computer Science, CRIA, Libraries.
Evaluation of new technologies and metadata for statistical government data. Judith L. Klavans (PI), Eduard Hovy (co-PI). $600,000 October 2001 - September 2004.

Bureau of Labor Statistics, Digital Government Program, awarded October 2001

- "User Evaluation of Digital Government Technologies"

Evaluation of new interfaces for statistical government data. Judith L. Klavans (PI).
$25,000 October 2001 - June 2002.

DARPA Translingual Information Detection, Extraction and Summarization, awarded August 2000

- "TIDES: Multilingual Multidocument Summarization"

Department of Computer Science and CRIA. Kathleen McKeown (PI), Vasileios Hatzivassiloglou and Judith L. Klavans (co-PI's).
$1,299,851 June 2000 - May 2004 / $500,000 supplement to 2002-2005.

NSF, Digital Government Program, awarded March 1999

- "Digital Government Research Center: Energy Data Consortium"

Joint Columbia and USC/ISI. Department of Computer Science and CRIA. New technologies for access to heterogeneous statistical databases. Salvatore Stolfo (PI) and Herbert Schorr (co-PI)
$1,631,623 2001 - September 2004.

NSF, Digital Library Initiative Phase 2, awarded March 1999

- "A Patient-Care Digital Library - PERSIVAL: Personalized Retrieval and Summarization for Medical Digital Libraries"

Columbia Department of Computer Science, Libraries, Academic Computing, CRIA, Medical Informatics, Electrical Engineering. Kathleen McKeown, Judith Klavans, et al. (co-PI's). $5,941,996 January 1999 - December 2003.

NSF, Information and Data Management, awarded March 1998

- "Information and Data Management (IDM): Research Agenda for the 21st Century"

Judith L. Klavans (PI); parallel proposal submitted by Panos K. Chrysanthis, University of Pittsburgh. Run meetings and create white paper on future issues for IDM program.
$71,973 March 1998 - February 1999.

NSF, Digital Library Program, awarded November 1997

- "Working Group on Multilingual Information Access"

Supplement to NSF-EU joint cooperative agreement for working groups; primary proposal to University of Michigan. Daniel Atkins (PI).
$20,630 November 1997 - October 1998.

NSF, awarded September 1997

- "Automatic Identification of Significant Topics in Domain Independent Full Text Analysis" Judith L. Klavans (PI).

$270,314 September 1997 - August 2000.

NSF, awarded February 1997

- "STIMULATE: Generating Coherent Summaries of On-Line Documents: Combining Statistical and Symbolic Techniques"

Judith L. Klavans (co-PI), Kathleen McKeown (co-PI). Awarded by Interactive Systems Program, CISE.
$438,878 3/1/1997 to 2/29/2000.

NSF, awarded August 1996

- "Workshop on Technologies for Terms and Conditions"

Judith L. Klavans (co-PI), James R. Davis (co-PI). Awarded by Information and Technology in Organizations (ITO) Program, CISE.
$55,356 9/1/1997 to 2/26/1998.

NIH-Biomedical Research Supporting Grant, awarded May 1979

- "Temporal Structuring of Sentences Spoken by Deaf Speakers: A Perceptual and Acoustic Analysis"

Judith L. Klavans (co-PI), Judith R. Duchan (co-PI). Awarded by SUNY Buffalo.
$54,499 5/11/1979 to 5/30/1980.

PROPOSALS UNDER REVIEW

Under Review:

"SUMSERV: Methodology for Summary and Survey Creation of Research Topics"
Submitted to the National Science Foundation, IIS, November 2006
Co-PI: Bonnie Dorr, Dragomir Radev, Judith Klavans, Benjamin Shneiderman

Center of Excellence: University of Maryland and John Hopkins University
Submitted to the DoD, July 2006
Co-PI with Jelinek et al.(UMD), Weinberg et al. (UMD)

"Metadata Literate Librarians for the New Millenium (MILLENNIUM)"
Submitted to the Institute for Museum and Library Science (IMLS)
PI: Judith L. Klavans

EDITORIAL BOARDS

Journals:

ACM Transactions on Information Systems (TOIS) – 2002-present
ACM Transactions on Speech and Language Processing (TSLP) – 2003-present
International Journal on Digital Libraries – 1999-present
MIT Press COG-NET – 1996-present
Journal of Machine Translation – 1994-present
Journal of Computing and the Humanities – 1996-2001

PROFESSIONAL REVIEWING

Journals:

Language, Computing and the Humanities, Natural Language and Linguistic Theory, Computational Linguistics, Journal of Machine Translation, Computers and Translation, Machine Learning, Natural Language Engineering, Journal of Artificial Intelligence Research, Transactions on Information Systems, Transactions on Speech and Language Processing, International Journal on Digital Libraries, Journal of the American Society for Information Science and Technology.

Publishers:

Cambridge University Press, Oxford University Press, MIT Press, Kluwer, Penguin, Usborne.

Granting Agencies:

National Science Foundation, National Education Association, National Endowment for the Humanities, National Institutes of Health, US-Japan Foundation, Institute of Museum and Library Services.

PROGRAM COMMITTEES and CONFERENCE REVIEWING

2005: IEEE International Conference on Intelligence and Security Informatics (IEEE ISI-2005)

2003: Third Joint Conference on Digital Libraries (JCDL), Workshop on Variation in Paraphrasing (ACL)

2002: Natural Language Processing in the Biomedical Domain, Association for Computational Linguistics (ACL-02); International Conference of Asian Digital Libraries (ICADL 2002)**;** Second Joint Conference on Digital Libraries (JCDL); European Conference on Digital Libraries (ECDL)

2001: First Joint Conference on Digital Libraries (JCDL)

2000: European Conference on Digital Libraries (ECDL); Association for Computing Machinery-Special Interest Group on Information Retrieval (ACM-SIGIR); North American Association for Computational Lingusitics (NAACL); Recherche d'Informations Assistée par Ordinateur (RIAO); Applied Natural Language Processing

1999: RIAO; NAACL; ECDL

1998: ECDL; IEEE-ADL Digital Libraries; ACL SIGLEX Workshop on Evaluating Word Sense Disambiguation and the Lexicon; Association for Computational Linguistics - International Conference on Computational Linguistics (ACL-COLING) Workshop on Computational Terminology

1997: ACM Digital Libraries, IEEE Digital Libraries, ACM-SIGIR (Information Retrieval), RIAO (Computer-Assisted Information Retrieval), Association for Computing and the Humanities and Association for Literary and Linguistic Computing (ACH-ALLC)

1996: European Conference on Artificial Intelligence (ECAI); ACL-COLING

1995: European Association for Computational Linguistics (EACL)

1994: International Workshop on Directions of Lexical Research, China National Laboratory of AI Technology and Systems, Tsinghua University, Beijing, China

1994: Sub-chair - ACL-COLING

1993: ACL. Main conference

1992-93: Association for Computational Linguistics Liaison to the Linguistic Society

1991: American Association for Artificial Intelligence (AAAI)

1992: International Joint Conference on Artificial Intelligence (IJCAI); ACL-COLING

1990: IJCAI; ACL-COLING

OTHER REVIEWING

National Science Foundation - Digital Libraries, Digital Government, Information and Data Management, Research Experience for Undergraduates, Large Instrumentation Program, Small Institutional Infrastructure Grants, Information and Technology in Research (ITR) mid-size awards Program

National Academy of Sciences - Consultant to the Committee on the Behavioral Sciences, Social Sciences and Education

IBM, Education Division - Innovation in Education Grants Committee

UNIVERSITY COMMITTEES

Columbia University

1999-2002 - Digital Library Operations Coordinating Committee
Operations-oriented digital library group consisting of libraries and academic computing staff.

1997-98 - Strategic Directions: New Media Committee
Committee from the Provost's Office to examine the impact of New Media on the University.

1996-97 - Strategic Digital Library Coordinating Committee
Coordinating committee under the Libraries and Information Services for the Columbia Digital Library Strategic Plan.

1996-97 - Access to Digital Information
Committee under the Libraries and Information Services for the Columbia Digital Library Strategic Plan.

1996-97 - Research for Digital Information
Committee on research issues under the Libraries and Information Services for the Columbia Digital Library Strategic Plan.

1995-2002 - Intellectual Property
Committee under Information Services Division to examine intellectual property issues on campus for faculty and libraries.

ADVISORY BOARDS

1999-present - Anita Borg Institute for Women and Technology

An international institute whose mission is “to increase the impact of women on all aspects of technology, to increase the positive impact of technology on the lives of the world's women, and to help communities, industry, education and government benefit from these increases.

ORGANIZATIONAL POSITIONS

1991-93 - Association for Computational Linguistics
Associate Secretary Treasurer. Appointment by the ACL Executive Committee.

- Responsibilities: Oversaw organizational and financial issues for the ACL, the main computational linguistics professional organization.

PROFESSIONAL ORGANIZATIONS

Association for Computing Machinery (from 1989)
Institute of Electrical and Electronics Engineers (from 1989)
Association for Computing and the Humanities (from 1988)
Acoustical Society of America (1984 - 1988)
American Association for Artificial Intelligence (from 1984)
New York Academy of Sciences (from 1984)
Association for Computational Linguistics (from 1982)
Linguistic Society of America (from 1979)

OTHER SELECTED ACTIVITIES

2000 to present – Founding Member and Participant of The Global Performing Arts Consortium (GLoPAC), for preservation and access to multimedia multilingual performing arts resources.
2002 to 2004 - Faculty Representative from Columbia University to the Federal Demonstration Partnership
1994-2000 - Text Encoding Initiative, Advisory Board
1994-95 - Chair, Linguistic Society of America (LSA) Committee on Computing
1993-94 - LSA Committee on Computing
1987-89 - LSA Committee on the Status of Women in Linguistics
1985-86 - LSA Committee for the Future of Linguistics
1983 to present - Radcliffe Career Counseling Advisors

LANGUAGES

Spanish, French: Fluent
Italian, German: Working Knowledge

Hebrew: In Progress

HONORS and AWARDS

National Institute of Mental Health Individual Post-Doctoral Award
Massachusetts Institute of Technology, 1981-1983

Institutional Research Grant Fund - joint with Dr. Judith Duchan
State University of New York at Buffalo, 1979

Social Science Research Council Research Award
University of London, 1977-79

Jackson Lewis Fellowship for Graduate Study
University of London, 1975 - 1976

[Last updated: January 2007]