

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
SCHOOL OF INFORMATION
COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS

Approved by the Regents

May 14, 2009

Dragomir R. Radev, associate professor of information, with tenure, School of Information, and associate professor of linguistics, without tenure, College of Literature, Science, and the Arts, is recommended for promotion to professor of information, with tenure, School of Information and professor of linguistics, without tenure, College of Literature, Science, and the Arts [also associate professor of electrical engineering and computer science, without tenure, College of Engineering].

Academic Degrees:

Ph.D.	1999	Columbia University, Computer Science, New York, NY
M.S.	1996	Columbia University, Computer Science, New York, NY
B.S.	1993	University of Maine, Linguistics, Orono, ME

Professional Record:

2005 – present	Associate Professor (with tenure), School of Information and Associate Professor (without tenure), Department of Electrical Engineering and Computer Science and Department of Linguistics, University of Michigan
2000 – 2005	Assistant Professor (with tenure), School of Information and Assistant Professor (without tenure), Department of Electrical Engineering and Computer Science and Department of Linguistics, University of Michigan
1998 – 1999	Research Staff Member, IBM TJ Watson Research Center, Hawthorne, NY

Summary of Evaluation:

Teaching: Professor Radev has taught courses at the School of Information, EECS, and Linguistics (some cross-listed). Most fall in the realm of text processing, but he has also taught an introductory course on database application design and a master's level foundation course. With the exception of the last of these, all were either new courses or significant overhauls of existing courses. Professor Radev is a key instructor at the University of Michigan in the area of computational linguistics, a field that spans information, computer science, and linguistics, and is of critical importance in the Internet-driven world.

Professor Radev's course evaluations are generally quite good, in the range of 3.6 to 4.5 for courses with more than 10 respondents. Professor Richmond Thomason of the University's Department of Linguistics attended student project poster presentations for Professor Radev's course on natural-language processing, and commented that "the projects he gets students to do are amazing." The one time that Professor Radev received low ratings (SI 503, in the Winter of 2006) appears to be anomalous, perhaps due in part to student awareness that this was the last offering of a course that was being phased out.

In addition to formal classroom teaching, Professor Radev supervises an unusually large number of individual projects, through independent studies and UROP, including 30 at the undergraduate and master's level. He is active in mentoring Ph.D. students, having chaired or co-chaired the committees of four students who have graduated. He is currently advisor to three doctoral students, and serves or has served on more than a dozen additional dissertation committees in SI, Linguistics, and Computer Science and Engineering.

Professor Radev is active in teaching to the larger professional world. He presents many tutorials at conferences, and he co-chaired two workshops on teaching natural language processing and computational linguistics. In 2007 and 2008, he served as coach for the U.S. high school team in the International Linguistics Olympiad, twice coaching teams to first-place finishes; this outreach demonstrates the breadth of his commitment to and success in educational activities.

Research: Professor Radev has an international reputation as a leader in the field of text summarization; indeed, he was the first to develop approaches to generating summaries of information from more than one online source. Text summarization combines two components: the extraction of content, and the organization and verbalization of content for natural language presentation. Professor Radev's dominant contributions have been in the first of these components. He has also contributed to areas of natural-language processing outside of information extraction, notably including the development of statistical models of discourse topics. He has had great success applying computational linguistics techniques to intriguing research problems from other domains: for example, for his work on modeling political discourse, he was a recipient (along with his co-authors) of the 2006 Gosnell Prize for Excellence in Political Methodology – the only non-political scientist ever to win this award.

Professor Radev publishes frequently in the leading venues in his field, and his papers are quite well-cited, with at least a half-dozen that have been cited more than 100 times each. As is standard for his field, he typically writes his papers in collaboration with others, although frequently his co-authors are graduate students who he is mentoring; moreover, there is no question, based on the letters, we received that he is always a full contributor to co-authored work. He has been quite successful in obtaining funding to support his research, serving as PI or co-PI on 10 grants, most from NSF, and a participant in four more; the share of the funding for him and his students exceeds \$2,000,000.

Recent and Significant Publications:

- Jahna Otterbacher, Gunes Erkan, Dragomir R. Radev, "Biased LexRank: Passage Retrieval using Random Walks with Question-Based Priors," *Information Processing and Management*, Vol. 45, No. 1, 2009 pg. 42 - 54.
- Arzucan Ozgur, Thuy Vu, Gunes Erkan, Dragomir R. Radev, "Identifying Gene-Disease Associations Based on Centrality on a Literature Mined Gene Interaction Network," *Bioinformatics*, Vol. 24, 2008 pg. i277-i285.
- Aaron Elkiss, Siwei Shen, Anthony Fader, Gunes Erkan, David States, Dragomir R. Radev, "Blind Men and Elephants: What Do Citation Summaries Tell Us About a Research Article?" *Journal of the American Society for Information Science and Technology*, Vol. 59, No. 1, 2008 pg. 51-62.
- Jahna Otterbacher, Dragomir R. Radev, Omer Kareem, "News to Go: Hierarchical Text Summarization for Mobile Devices. In *29th Annual Association for Computational Machinery Special Interest Group on Information Retrieval (ACM SIGIR) Conference on Research and Development in Information Retrieval*, Seattle, Washington, August 2006.
- Kevin M. Quinn, Burt L. Monroe, Michael Colaresi, Michael H. Crespin, Dragomir R. Radev. "An Automated Method of Topic-Coding Legislative Speech Over Time with Application to the 105th-108th U.S. Senate. In *Midwest Political Science Association Meeting*, Philadelphia, PA 2006.
- Dragomir R. Radev, Jahna Otterbacher, Adam Winkel, Sasha Blair-Goldensohn, "Newsinessence: Summarizing Online News Topics, *Communications of the Association for Computational Machinery (ACM)*, Vol. 10, 2005 pg. 95 - 98.

Service: Professor Radev has served on most of the major committees in the School of Information, and in particular has been very heavily involved in faculty recruiting. Externally, he has played a leading role in the Association of Computational Linguistics (ACL), the main professional organization in his field, having served as webmaster, North American treasurer, and International secretary, and the Local Arrangements Host for the ACL 2005 conference, for which he played a leading role in bringing the conference to Ann Arbor. He is an associate editor of *Journal of Artificial Intelligence Research (JAIR)*, a member of the editorial boards of *Information Retrieval* and *Journal of Natural Language Engineering*, and he has done a significant amount of reviewing for other journals. Professor Radev and Professor Abney in Linguistics were the driving forces in developing an accelerated Linguistics / SI degree program in which Linguistics concentrators can complete the B.A. and Master of Science in information (MSI) degrees in five years, rather than the usual six. This program, rolled out in Fall 2006, embraces the changing role of information in human language technology.

External Reviewers:

Reviewer (A): “Dragomir is fully deserving of this promotion, and your department will be proud to have him at that rank. ...[He] essentially invented Google News before Google did...”

Reviewer (B): “Drago is one of the leaders on multi-document summarization and on applications of linguistics to information science. His papers are copious in number and they are significant papers in the field. ...[He] is clearly one of the leaders of the NLP and document processing areas, and...is completely qualified for the promotion you anticipate.”

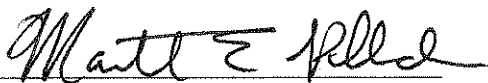
Reviewer (C): “Drago has attacked major issues; he is creative in his approaches, and; he has made sizeable contributions to the myriad fields within the domains he refers to collectively as Information Engineering. Drago’s work exhibits broad and deep scientific knowledge, plus the commitment to real-world applications...”

Reviewer (D): “...[H]e has published papers in journals and conferences in such diverse disciplines as bioinformatics, computational linguistics, web technologies, and knowledge managements. I find it amazing to see that all of his publications were in top-ranked journals and conferences in their respective fields of research. Rarely do we find that a single researcher can show such deep understanding in such diverse areas...”

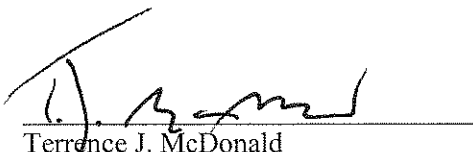
Reviewer (E): “Dr. Radev has been a prolific researcher in terms of results, publications and impact. His focus has been always within the general area of natural language processing and computational linguistics, but within this area he has done a remarkable amount of varied and innovative work... I am very impressed by the quality, scope and quantify of Dr. Radev’s research.”

Reviewer (F): “That Dr. Radev both motivates students to carry out systematic research and provides them with the skills of good scientific writing is a notable and welcome achievement. He really takes his role as a teacher as seriously as he takes his role as a researcher. ...Dr. Radev is one of the most prominent and active members of the Computational Linguistic communities.”

Summary of Recommendation: Professor Radev is a prominent and productive researcher in the field of computational linguistics, who has made significant contributions to this field and in cross-disciplinary applications; he is an excellent teacher and mentor whose contributions extend to outreach to high school students; and he provides significant service both inside and outside the university. With the very strong support of the full promotion and tenure committee of the School of Information, and from the Executive Committee of the College of Literature, Science, and the Arts, we enthusiastically recommend Dragomir R. Radev for promotion to professor of information, with tenure, School of Information, and professor of linguistics, without tenure, College of Literature, Science, and the Arts.



Martha E. Pollack
Dean and Professor, School of Information



Terrence J. McDonald
Arthur F. Thurnau Professor,
Professor of History, and Dean,
College of Literature, Science, and the Arts

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