

Recommender System Handbook NOTE

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Chapter 1

基于内容的推荐系统：最新技术和趋势

1.1 简介

网络和数字图书馆中蕴含着丰富的信息，它们往往是动态而且异构，这决定了我们很难迅速找到我们的需求。

因此，用户建模和个性化信息的获取变得非常重要：用户根据他们的兴趣和品位，需要大量的可用的信息来支持他们的个性化选择。

许多用户的个性化信息内容被加入到推荐系统中

Bibliography

- [1] Aciar, S., Zhang, D., Simoff, S., Debenham, J.: Informed Recommender: Basing Recommendations on Consumer Product Reviews. *IEEE Intelligent Systems* 22(3), 39–47 (2007)
- [2] Ahn, J., Brusilovsky, P., Grady, J., He, D., Syn, S.Y.: Open User Profiles for Adaptive News Systems: Help or Harm? In: C.L.Williamson, M.E. Zurko, P.F. Patel-Schneider, P.J. Shenoy (eds.) *Proceedings of the 16th International Conference on World Wide Web*, pp. 11–20. ACM (2007)
- [3] Anderson, M.: Google Searches for Ad Dollars in Social Networks. *IEEE Spectrum* 45(12), 16 (2008)

- [4] Asnicar, F., Tasso, C.: ifWeb: a Prototype of User Model-based Intelligent Agent for Documentation Filtering and Navigation in the World Wide Web. In: C. Tasso, A. Jameson, C.L. Paris (eds.) Proceedings of the First International Workshop on Adaptive Systems and User Modeling on the World Wide Web, Sixth International Conference on User Modeling, pp. 3–12. Chia Laguna, Sardinia, Italy (1997)
- [5] Aurnhammer, M., Hanappe, P., Steels, L.: Integrating Collaborative Tagging and Emergent Semantics for Image Retrieval. In: Proceedings of the WWW 2006 Collaborative Web Tagging Workshop (2006)
- [6] Baeza-Yates, R., Ribeiro-Neto, B.: Modern Information Retrieval. Addison-Wesley (1999)
- [7] Balabanovic, M., Shoham, Y.: Fab: Content-based, Collaborative Recommendation. Communications of the ACM 40(3), 66–72 (1997)
- [8] Basile, P., Degemmis, M., Gentile, A., Lops, P., Semeraro, G.: UNIBA: JIGSAW algorithm for Word Sense Disambiguation. In: Proceedings of the 4th ACL 2007 International Workshop on Semantic Evaluations (SemEval-2007), Prague, Czech Republic, pp. 398–401. Association for Computational Linguistics (2007)
- [9] Basile, P., de Gemmis, M., Gentile, A., Iaquinta, L., Lops, P., Semeraro, G.: An Electronic Performance Support System Based on a Hybrid Content-Collaborative Recommender System. Neural Network World: International Journal on Neural and Mass-Parallel Computing and Information Systems 17(6), 529–541 (2007)
- [10] Basile, P., de Gemmis, M., Gentile, A., Iaquinta, L., Lops, P.: The JUMP project: Domain Ontologies and Linguistic Knowledge @ Work. In: Proceedings of the 4th Italian Semantic Web Applications and Perspectives - SWAP 2007, CEUR Workshop Proceedings. CEURWS. org (2007)
- [11] Billsus, D., Pazzani, M.J.: A Hybrid User Model for News Story Classification. In: Proceedings of the Seventh International Conference on User Modeling. Banff, Canada (1999)
- [12] Billsus, D., Pazzani, M.J.: User Modeling for Adaptive News Access. User Modeling and User-Adapted Interaction 10(2-3), 147–180 (2000)

- [13] Blanco-Fernandez, Y., Pazos-Arias J. J., G.S.A., Ramos-Cabrer, M., Lopez-Nores, M.: Providing Entertainment by Content-based Filtering and Semantic Reasoning in Intelligent Recommender Systems. *IEEE Transactions on Consumer Electronics* 54(2), 727–735 (2008)
- [14] Bollacker, K.D., Giles, C.L.: CiteSeer: An AutonomousWeb Agent for Automatic Retrieval and Identification of Interesting Publications. In: K. Sycara, M. Wooldridge (eds.) *Proceedings of the Second International Conference on Autonomous Agents*, pp. 116–123. ACM Press (1998)
- [15] Boone, G.: Concept Features in Re:Agent, an Intelligent Email Agent. In: K. Sycara, M. Wooldridge (eds.) *Proceedings of the Second International Conference on Autonomous Agents*, pp. 141–148. ACM Press (1998)
- [16] Burke, R.: Hybrid Recommender Systems: Survey and Experiments. *User Modeling and User-Adapted Interaction* 12(4), 331–370 (2002)
- [17] Cantador, I., Bellog´ın, A., Castells, P.: News@hand: A Semantic Web Approach to Recommending News. In: W. Nejdl, J. Kay, P. Pu, E. Herder (eds.) *Adaptive Hypermedia and Adaptive Web-Based Systems, Lecture Notes in Computer Science*, vol. 5149, pp. 279–283. Springer (2008)
- [18] Cantador, I., Szomszor, M., Alani, H., Fernandez, M., Castells, P.: Ontological User Profiles with Tagging History for Multi-Domain Recommendations. In: *Proceedings of the Collective Semantics: Collective Intelligence and the SemanticWeb, CISWeb2008, Tenerife, Spain* (2008)
- [19] Carmagnola, F., Cena, F., Cortassa, O., Gena, C., Torre, I.: Towards a Tag-Based User Model: How Can User Model Benefit from Tags? In: *User Modeling 2007, Lecture Notes in Computer Science*, vol. 4511, pp. 445–449. Springer (2007)
- [20] Celma, O., Ram´ırez, M., Herrera, P.: Foafing the Music: A Music Recommendation System based on RSS Feeds and User Preferences. In: *6th International Conference on Music Information Retrieval (ISMIR)*, pp. 464–467. London, UK (2005)
- [21] Celma, O., Serra, X.: FOAFing the Music: Bridging the Semantic Gap in Music Recommendation. *Web Semantics* 6(4), 250–256 (2008)

- [22] Chen, L., Sycara, K.: WebMate: A Personal Agent for Browsing and Searching. In: K.P. Sycara, M. Wooldridge (eds.) *Proceedings of the 2nd International Conference on Autonomous Agents*, pp. 9–13. ACM Press, New York (1998)
- [23] Claypool, M., Gokhale, A., Miranda, T., Murnikov, P., Netes, D., Sartin, M.: Combining Content-Based and Collaborative Filters in an Online Newspaper. In: *Proceedings of ACM SIGIR Workshop on Recommender Systems* (1999). URL citeseer.ist.psu.edu/claypool99combining.html
- [24] Collins, A.M., Loftus, E.F.: A Spreading Activation Theory of Semantic Processing. *Psychological Review* 82(6), 407–428 (1975)
- [25] Csomai, A., Mihalcea, R.: Linking Documents to Encyclopedic Knowledge. *IEEE Intelligent Systems* 23(5), 34–41 (2008)
- [26] Degemmis, M., Lops, P., Semeraro, G.: A Content-collaborative Recommender that Exploits WordNet-based User Profiles for Neighborhood Formation. *User Modeling and User-Adapted Interaction: The Journal of Personalization Research (UMUAI)* 17(3), 217–255 (2007). Springer Science + Business Media B.V.
- [27] Diederich, J., Iofciu, T.: Finding Communities of Practice from User Profiles Based On Folksonomies. In: *Innovative Approaches for Learning and Knowledge Sharing, EC-TEL Workshop Proc.*, pp. 288–297 (2006)
- [28] Domingos, P., Pazzani, M.J.: On the Optimality of the Simple Bayesian Classifier under Zero-One Loss. *Machine Learning* 29(2-3), 103–130 (1997)
- [29] Egozi, O., Gabrilovich, E., Markovitch, S.: Concept-Based Feature Generation and Selection for Information Retrieval. In: D. Fox, C.P. Gomes (eds.) *Proceedings of the Twenty-Third AAAI Conference on Artificial Intelligence, AAAI 2008*, pp. 1132–1137. AAAI Press (2008). ISBN 978-1-57735-368-3
- [30] Eirinaki, M., Vazirgiannis, M., Varlamis, I.: SEWeP: Using Site Semantics and a Taxonomy to enhance the Web Personalization Process. In: *Proceedings of the Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, pp. 99–108. ACM (2003)

- [31] Fellbaum, C.: WordNet: An Electronic Lexical Database. MIT Press (1998)
- [32] Firan, C.S., Nejdl, W., Paiu, R.: The Benefit of Using Tag-Based Profiles. In: Proceedings of the Latin American Web Conference, pp. 32–41. IEEE Computer Society, Washington, DC, USA (2007). DOI <http://dx.doi.org/10.1109/LA-WEB.2007.24>. ISBN 0-7695-3008-7
- [33] Gabrilovich, E., Markovitch, S.: Overcoming the Brittleness Bottleneck using Wikipedia: Enhancing Text Categorization with Encyclopedic Knowledge. In: Proceedings of the Twenty-First National Conference on Artificial Intelligence and the Eighteenth Innovative Applications of Artificial Intelligence Conference, pp. 1301–1306. AAAI Press (2006)
- [34] Gabrilovich, E., Markovitch, S.: Computing Semantic Relatedness Using Wikipedia-based Explicit Semantic Analysis. In: M.M. Veloso (ed.) Proceedings of the 20th International Joint Conference on Artificial Intelligence, pp. 1606–1611 (2007)
- [35] Gemmis, M.d., Lops, P., Semeraro, G., Basile, P.: Integrating Tags in a Semantic Contentbased Recommender. In: Proceedings of the 2008 ACM Conference on Recommender Systems, RecSys 2008, Lausanne, Switzerland, October 23–25, 2008, pp. 163–170 (2008)
- [36] Giles, J.: Internet Encyclopaedias Go Head to Head. *Nature* 438, 900–901 (2005)
- [37] Godoy, D., Amandi, A.: Hybrid Content and Tag-based Profiles for Recommendation in Collaborative Tagging Systems. In: Proceedings of the 6th Latin American Web Congress (LA-WEB 2008), pp. 58–65. IEEE Computer Society (2008). ISBN 978-0-7695-3397-1
- [38] Goldberg, D., Nichols, D., Oki, B., Terry, D.: Using Collaborative Filtering to Weave an Information Tapestry. *Communications of the ACM* 35(12), 61–70 (1992). URL <http://www.xerox.com/PARC/dlbx/tapestry-papers/TN44.ps>. Special Issue on Information Filtering
- [39] Golder, S., Huberman, B.A.: The Structure of Collaborative Tagging Systems. *Journal of Information Science* 32(2), 198–208 (2006)

- [40] Gup, T.: Technology and the End of Serendipity. *The Chronicle of Higher Education* (44), 52 (1997)
- [41] Herlocker, L., Konstan, J.A., Terveen, L.G., Riedl, J.T.: Evaluating Collaborative Filtering Recommender Systems. *ACM Transactions on Information Systems* 22(1), 5–53 (2004)
- [42] Holte, R.C., Yan, J.N.Y.: Inferring What a User Is Not Interested in. In: G.I. McCalla (ed.) *Advances in Artificial Intelligence, Lecture Notes in Computer Science*, vol. 1081, pp. 159–171 (1996). ISBN 3-540-61291-2
- [43] Iaquinta, L., de Gemmis, M., Lops, P., Semeraro, G., Filannino, M., Molino, P.: Introducing Serendipity in a Content-based Recommender System. In: F. Khafa, F. Herrera, A. Abraham, M. Köppen, J.M. Benítez (eds.) *Proceedings of the Eighth International Conference on Hybrid Intelligent Systems HIS-2008*, pp. 168–173. IEEE Computer Society Press, Los Alamitos, California (2008)
- [44] Joachims, T., Freitag, D., Mitchell, T.M.: Web Watcher: A Tour Guide for the World Wide Web. In: *15th International Joint Conference on Artificial Intelligence*, pp. 770–777 (1997). URL cite-seer.ist.psu.edu/article/joachims97webwatcher.html
- [45] Kim, S.B., Han, K.S., Rim, H.C., Myaeng, S.H.: Some Effective Techniques for Naïve Bayes Text Classification. *IEEE Trans. Knowl. Data Eng.* 18(11), 1457–1466 (2006)
- [46] Lees-Miller, J., Anderson, F., Hoehn, B., Greiner, R.: Does Wikipedia Information Help Netflix Predictions? In: *Seventh International Conference on Machine Learning and Applications (ICMLA)*, pp. 337–343. IEEE Computer Society (2008). ISBN 978-0-7695-3495-4
- [47] Lewis, D.D., Ringuette, M.: A Comparison of Two Learning Algorithms for Text Categorization. In: *Proceedings of SDAIR-94, 3rd Annual Symposium on Document Analysis and Information Retrieval*, pp. 81–93. Las Vegas, US (1994)
- [48] Lieberman, H.: Letizia: an Agent that Assists Web Browsing. In: *Proceedings of the International Joint Conference on Artificial Intelligence*, pp. 924–929. Morgan Kaufmann (1995)

- [49] Linden, G., Smith, B., York, J.: Amazon.com Recommendations: Item-to-Item Collaborative Filtering. *IEEE Internet Computing* 7(1), 76–80 (2003)
- [50] Magnini, B., Strapparava, C.: Experiments in Word Domain Disambiguation for Parallel Texts. In: *Proc. of SIGLEX Workshop on Word Senses and Multi-linguality*, Hong-Kong, October 2000. *ACL* (2000)
- [51] Magnini, B., Strapparava, C.: Improving User Modelling with Content-based Techniques. In: *Proceedings of the 8th International Conference of User Modeling*, pp. 74–83. Springer (2001)
- [52] Mak, H., Koprinska, I., Poon, J.: INTIMATE: A Web-Based Movie Recommender Using Text Categorization. In: *Proceedings of the IEEE/WIC International Conference on Web Intelligence*, pp. 602–605. IEEE Computer Society (2003). ISBN 0-7695-1932-6
- [53] McCallum, A., Nigam, K.: A Comparison of Event Models for Naïve Bayes Text Classification. In: *Proceedings of the AAAI/ICML-98 Workshop on Learning for Text Categorization*, pp. 41–48. AAAI Press (1998)
- [54] McNee, S.M., Riedl, J., Konstan, J.A.: Accurate is not Always Good: How Accuracy Metrics have hurt Recommender Systems. In: *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems* (2006)
- [55] Melville, P., Mooney, R.J., Nagarajan, R.: Content-Boosted Collaborative Filtering for Improved Recommendations. In: *Proceedings of the Eighteenth National Conference on Artificial Intelligence and Fourteenth Conference on Innovative Applications of Artificial Intelligence (AAAI/IAAI-02)*, pp. 187–192. AAAI Press, Menlo Parc, CA, USA (2002)
- [56] Michlmayr, E., Cayzer, S.: Learning User Profiles from Tagging Data and Leveraging them for Personal(ized) Information Access. In: *Proc. of the Workshop on Tagging and Metadata for Social Information Organization*, Int. WWW Conf. (2007)

- [57] Middleton, S.E., Shadbolt, N.R., De Roure, D.C.: Ontological User Profiling in Recommender Systems. *ACM Transactions on Information Systems* 22(1), 54–88 (2004)
- [58] Mihalcea, R., Csomai, A.: Wikify!: Linking Documents to Encyclopedic Knowledge. In: *Proceedings of the sixteenth ACM conference on Conference on Information and Knowledge Management*, pp. 233–242. ACM, New York, NY, USA (2007). DOI <http://doi.acm.org/10.1145/1321440.1321475>. ISBN 978-1-59593-803-9
- [59] Miller, G.: WordNet: An On-Line Lexical Database. *International Journal of Lexicography* 3(4) (1990). (Special Issue)
- [60] Mitchell, T.: *Machine Learning*. McGraw-Hill, New York (1997)
- [61] Mladenic, D.: Machine learning used by PersonalWebWatcher. In: *Proceedings of ACAI-99 Workshop on Machine Learning and Intelligent Agents* (1999)
- [62] Mladenic, D.: Text-learning and Related Intelligent Agents: A Survey. *IEEE Intelligent Systems* 14(4), 44–54 (1999)
- [63] Montaner, M., Lopez, B., Rosa, J.L.D.L.: A Taxonomy of Recommender Agents on the Internet. *Artificial Intelligence Review* 19(4), 285–330 (2003)
- [64] Mooney, R.J., Roy, L.: Content-Based Book Recommending Using Learning for Text Categorization. In: *Proceedings of the 5th ACM Conference on Digital Libraries*, pp. 195–204. ACM Press, New York, US, San Antonio, US (2000)
- [65] Moukas, A.: Amalthaea Information Discovery and Filtering Using a Multiagent Evolving Ecosystem. *Applied Artificial Intelligence* 11(5), 437–457 (1997)
- [66] Mukherjee, R., Jonsdottir, G., Sen, S., Sarathi, P.: MOVIES2GO: an Online Voting based Movie Recommender System. In: *Proceedings of the Fifth International Conference on Autonomous Agents*, pp. 114–115. ACM Press (2001)

- [67] Pazzani, M., Billsus, D.: Learning and Revising User Profiles: The Identification of Interesting Web Sites. *Machine Learning* 27(3), 313–331 (1997)
- [68] Pazzani, M.J., Billsus, D.: Content-Based Recommendation Systems. In: P. Brusilovsky, A. Kobsa, W. Nejdl (eds.) *The Adaptive Web, Lecture Notes in Computer Science*, vol.4321, pp. 325–341 (2007). ISBN 978-3-540-72078-2
- [69] Pazzani, M.J., Muramatsu, J., Billsus, D.: Syskill and Webert: Identifying Interesting Web Sites. In: *Proceedings of the Thirteenth National Conference on Artificial Intelligence and the Eighth Innovative Applications of Artificial Intelligence Conference*, pp. 54–61. AAAI Press / MIT Press, Menlo Park (1996)
- [70] Picard, R.W.: *Affective Computing*. MIT Press (2000)
- [71] Resnick, P., Iacovou, N., Suchak, M., Bergstrom, P., Riedl, J.: GroupLens: An Open Architecture for Collaborative Filtering of Netnews. In: *Proceedings of ACM 1994 Conference on Computer Supported Cooperative Work*, pp. 175–186. ACM, Chapel Hill, North Carolina (1994). URL citeseer.ist.psu.edu/resnick94groupLens.html
- [72] Resnick, P., Varian, H.: Recommender Systems. *Communications of the ACM* 40(3), 56–58 (1997)
- [73] Rich, E.: User Modeling via Stereotypes. *Cognitive Science* 3, 329–354 (1979)
- [74] Rocchio, J.: Relevance Feedback Information Retrieval. In: G. Salton (ed.) *The SMART retrieval system - experiments in automated document processing*, pp. 313–323. PrenticeHall, Englewood Cliffs, NJ (1971)
- [75] Rokach, L., Maimon, O., *Data Mining with Decision Trees: Theory and Applications*, World Scientific Publishing (2008).
- [76] Sahlgren, M.: *The Word-Space Model: Using Distributional Analysis to Represent Syntagmatic and Paradigmatic Relations between Words in High-dimensional Vector Spaces*. Ph.D. thesis, Stockholm: Stockholm University, Faculty of Humanities, Department of Linguistics (2006)

- [77] Salter, J., Antonopoulos, N.: CinemaScreen Recommender Agent: Combining collaborative and content-based filtering. *IEEE Intelligent Systems* 21(1), 35–41 (2006)
- [78] Salton, G.: *Automatic Text Processing*. Addison-Wesley (1989)
- [79] Salton, G., McGill, M.: *Introduction to Modern Information Retrieval*. McGraw-Hill, New York (1983)
- [80] Schwab, I., Kobsa, A., Koychev, I.: Learning User Interests through Positive Examples using Content Analysis and Collaborative Filtering (2001). URL citeseer.ist.psu.edu/schwab01learning.html
- [81] Sebastiani, F.: Machine Learning in Automated Text Categorization. *ACM Computing Surveys* 34(1) (2002)
- [82] Semeraro, G., Basile, P., de Gemmis, M., Lops, P.: User Profiles for Personalizing Digital Libraries. In: Y.L. Theng, S. Foo, D.G.H. Lian, J.C. Na (eds.) *Handbook of Research on Digital Libraries: Design, Development and Impact*, pp. 149–158. IGI Global (2009). ISBN 978-159904879-6
- [83] Semeraro, G., Degemmis, M., Lops, P., Basile, P.: Combining Learning and Word Sense Disambiguation for Intelligent User Profiling. In: M.M. Veloso (ed.) *Proceedings of the 20th International Joint Conference on Artificial Intelligence*, pp. 2856–2861 (2007). ISBN 978-I-57735-298-3
- [84] Semeraro, G., Lops, P., Basile, P., Gemmis, M.d.: Knowledge Infusion into Content-based Recommender Systems. In: *Proceedings of the 2009 ACM Conference on Recommender Systems, RecSys 2009, New York, USA, October 22-25, 2009* (2009). To appear
- [85] Shardanand, U., Maes, P.: Social Information Filtering: Algorithms for Automating “Word of Mouth” . In: *Proceedings of ACM CHI’ 95 Conference on Human Factors in Computing Systems*, vol. 1, pp. 210–217 (1995). URL citeseer.ist.psu.edu/shardanand95social.html
- [86] Sheth, B., Maes, P.: Evolving Agents for Personalized Information Filtering. In: *Proceedings of the Ninth Conference on Artificial Intelligence for Applications*, pp. 345–352. IEEE Computer Society Press (1993)

- [87] Smirnov, A.V., Krizhanovsky, A.: Information Filtering based on Wiki Index Database. CoRR abs/0804.2354 (2008)
- [88] Smith, B., Cotter, P.: A Personalized TV Listings Service for the Digital TV Age. *Knowledge-Based Systems* 13, 53–59 (2000)
- [89] Sorensen, H., McElligott, M.: PSUN: A Profiling System for Usenet News. In: *Proceedings of CIKM '95 Intelligent Information Agents Workshop* (1995)
- [90] Sorensen, H., O' Riordan, A., O' Riordan, C.: Profiling with the INFORMer Text Filtering Agent. *Journal of Universal Computer Science* 3(8), 988–1006 (1997)
- [91] Stefani, A., Strapparava, C.: Personalizing Access to Web Sites: The SiteIF Project. In: *Proc. of second Workshop on Adaptive Hypertext and Hypermedia*, Pittsburgh, June 1998 (1998)
- [92] Straffin, P.D.J.: *Topics in the Theory of Voting*. The UMAP expository monograph series. Birkhauser (1980)
- [93] Symeonidis, P.: Content-based Dimensionality Reduction for Recommender Systems. In: C. Preisach, H. Burkhardt, L. Schmidt-Thieme, R. Decker (eds.) *Data Analysis, Machine Learning and Applications, Studies in Classification, Data Analysis, and Knowledge Organization*, pp. 619–626. Springer Berlin Heidelberg (2008). ISBN 978-3-540-78239-1
- [94] Symeonidis, P., Nanopoulos, A., Manolopoulos, Y.: Tag Recommendations based on Tensor Dimensionality Reduction. In: *Proceedings of the 2008 ACM Conference on Recommender Systems, RecSys 2008*, Lausanne, Switzerland, October 23–25, 2008, pp. 43–50 (2008)
- [95] Szomszor, M., Cattuto, C., Alani, H., O' Hara, K., Baldassarri, A., Loreto, V., Servedio, V.D.P.: Folksonomies, the Semantic Web, and Movie Recommendation. In: *Proceedings of the Workshop on Bridging the Gap between Semantic Web and Web 2.0 at the 4th ESWC* (2007)
- [96] Toms, E.: Serendipitous Information Retrieval. In: *Proceedings of DELOS Workshop: Information Seeking, Searching and Querying in Digital Libraries* (2000)

- [97] Tso-Sutter, K.H.L., Marinho, L.B., Schmidt-Thieme, L.: Tag-aware Recommender Systems by Fusion of Collaborative Filtering Algorithms. In: SAC '08: Proceedings of the 2008 ACM symposium on Applied computing, pp. 1995–1999. ACM (2008). ISBN 978-1-59593-753-7
- [98] Wasfi, A.M.: Collecting User Access Patterns for Building User Profiles and Collaborative Filtering. In: Proceedings of the International Conference on Intelligent User Interfaces, pp. 57–64 (1999)
- [99] Witten, I.H., Bell, T.: The Zero-frequency Problem: Estimating the Probabilities of Novel Events in Adaptive Text Compression. *IEEE Transactions on Information Theory* 37(4) (1991)
- [100] Yang, Y., Pedersen, J.O.: A Comparative Study on Feature Selection in Text Categorization. In: D.H. Fisher (ed.) Proceedings of ICML-97, 14th International Conference on Machine Learning, pp. 412–420. Morgan Kaufmann Publishers, San Francisco, US, Nashville, US (1997). URL citeseer.ist.psu.edu/yang97comparative.html
- [101] Yeung, C.M.A., Gibbins, N., Shadbolt, N.: A Study of User Profile Generation from Folksonomies. In: Proc. of the Workshop on Social Web and Knowledge Management, WWW Conf. (2008)
- [102] Zhang, Y., Callan, J., Minka, T.: Novelty and Redundancy Detection in Adaptive Filtering. In: Proceedings of the 25th International ACM SIGIR Conference, pp. 81–88 (2002)
- [103] Zhao, S., Du, N., Nauertz, A., Zhang, X., Yuan, Q., Fu, R.: Improved Recommendation based on Collaborative Tagging Behaviors. In: Proceedings of International Conference on Intelligent User Interfaces, IUI, pp. 413–416. ACM (2008). ISBN 978-1-59593-987-6