Jack's reading list

Yu-Chieh Jack Ho

October 5, 2015

1 Recommendation Diversity and Group-Based Recommendation

Recommender systems [51] are useful tools that help people to filter and explore massive information. While the accuracy of recommender systems is important, many recent research indicated that focusing merely on accuracy is insufficient to fulfill the various contexts and objectives of recommender systems. My research (and this reading list) focus on two interesting topics: **Recommendation Diversity** [20] [56] [23] [10] [24] [28] [36] [21] [29] [4] [32] [45] [61] [17] [33] [60] [12] [1] [11] [53] [2] [34] [43] [47] [48] [50] [35] [44] and **Group-Based Recommendation** [31] [54] [5] [42] [30] [19] [7] [39] [46] [16] [9] [38] [25] [40] [57] [3] [6] [8] [41] [27] [52] [15] [37] [55] [59] [13] [22] [14] [26] [49] [58] [18] which should also be taken into consideration in order to extract more meaningful recommendations and fulfill user needs

References

- [1] G. Adomavicius and Y. Kwon. Maximizing aggregate recommendation diversity: A graph-theoretic approach. In *Proceedings of workshop on novelty and diversity in recommender systems*, pages 3–10, 2011.
- [2] G. Adomavicius and Y. Kwon. Improving aggregate recommendation diversity using ranking-based techniques. *Knowledge and Data Engineering, IEEE Transactions on*, 24(5):896–911, 2012.
- [3] S. Amer-Yahia, S. B. Roy, A. Chawlat, G. Das, and C. Yu. Group recommendation: Semantics and efficiency. *Proc. VLDB Endow.*, 2(1):754–765, Aug. 2009.
- [4] C. Anderson. The long tail: Why the future of business is selling less of more. Hyperion Books, 2008.
- [5] K. J. Arrow. A difficulty in the concept of social welfare. *The Journal of Political Economy*, pages 328–346, 1950.
- [6] L. Baltrunas, T. Makcinskas, and F. Ricci. Group recommendations with rank aggregation and collaborative filtering. In *Proceedings of the Fourth ACM Conference on Recommender* Systems, RecSys '10, pages 119–126, New York, NY, USA, 2010. ACM.
- [7] C. B. Barber, D. P. Dobkin, and H. Huhdanpaa. The quickhull algorithm for convex hulls. *ACM Trans. Math. Softw.*, 22(4):469–483, Dec. 1996.

- [8] S. Berkovsky and J. Freyne. Group-based recipe recommendations: Analysis of data aggregation strategies. In *Proceedings of the Fourth ACM Conference on Recommender Systems*, RecSys '10, pages 111–118, New York, NY, USA, 2010. ACM.
- [9] D. M. Blei, A. Y. Ng, and M. I. Jordan. Latent dirichlet allocation. J. Mach. Learn. Res., 3:993-1022, Mar. 2003.
- [10] K. Bradley and B. Smyth. Improving recommendation diversity. In Proceedings of the Twelfth National Conference in Artificial Intelligence and Cognitive Science (AICS-01), pages 75–84, 2001.
- [11] E. Brynjolfsson, Y. J. Hu, and D. Simester. Goodbye pareto principle, hello long tail: The effect of search costs on the concentration of product sales. *Management Science*, 57(8):1373–1386, Aug. 2011.
- [12] E. Brynjolfsson, Y. J. Hu, and M. D. Smith. Research commentary long tails vs. superstars: The effect of information technology on product variety and sales concentration patterns. *Information Systems Research*, 21(4):736–747, 2010.
- [13] L. A. M. a. C. Carvalho and H. T. Macedo. Users' satisfaction in recommendation systems for groups: An approach based on noncooperative games. In *Proceedings of the 22Nd International Conference on World Wide Web Companion*, WWW '13 Companion, pages 951–958, Republic and Canton of Geneva, Switzerland, 2013. International World Wide Web Conferences Steering Committee.
- [14] I. A. Christensen and S. Schiaffino. Social influence in group recommender systems. *Online Information Review*, 38(4):5–5, 2014.
- [15] T. De Pessemier, S. Dooms, and L. Martens. Design and evaluation of a group recommender system. In *Proceedings of the Sixth ACM Conference on Recommender Systems*, RecSys '12, pages 225–228, New York, NY, USA, 2012. ACM.
- [16] C. Dwork, R. Kumar, M. Naor, and D. Sivakumar. Rank aggregation methods for the web. In Proceedings of the 10th International Conference on World Wide Web, WWW '01, pages 613–622, New York, NY, USA, 2001. ACM.
- [17] D. M. Fleder and K. Hosanagar. Blockbuster culture's next rise or fall: The impact of recommender systems on sales diversity. *Management Science*, 55(5):697–712, 2009.
- [18] C. Freudenthaler, L. Schmidt-thieme, and S. Rendle. Bayesian factorization machines.
- [19] D. Fudenberg and J. Tirole. Game theory. MIT Press Books, 1, 1991.
- [20] C. Gini. Measurement of inequality of incomes. The Economic Journal, 31(121):124–126, 1921.
- [21] D. G. Goldstein and D. C. Goldstein. Profiting from the long tail. *Harvard Business Review*, 84(6):24–28, June 2006.
- [22] J. Gorla, N. Lathia, S. Robertson, and J. Wang. Probabilistic group recommendation via information matching. In *Proceedings of the 22Nd International Conference on World Wide Web*, WWW '13, pages 495–504, Republic and Canton of Geneva, Switzerland, 2013. International World Wide Web Conferences Steering Committee.

- [23] J. L. Herlocker, J. A. Konstan, A. Borchers, and J. Riedl. An algorithmic framework for performing collaborative filtering. In *Proceedings of the 22nd annual international ACM* SIGIR conference on Research and development in information retrieval, SIGIR '99, pages 230–237, New York, 1999. ACM.
- [24] J. L. Herlocker, J. A. Konstan, L. G. Terveen, and J. T. Riedl. Evaluating collaborative filtering recommender systems. *ACM Transactions on Information Systems*, 22(1):5–53, January 2004.
- [25] G. Hinton, S. Osindero, and Y. Teh. A fast learning algorithm for deep belief nets. Neural Computation, 18(7):1527–1554, July 2006.
- [26] L. Hu, J. Cao, G. Xu, L. Cao, Z. Gu, and W. Cao. Deep modeling of group preferences for group-based recommendation. In Twenty-Eighth AAAI Conference on Artificial Intelligence, 2014.
- [27] X. Hu, X. Meng, and L. Wang. Svd-based group recommendation approaches: An experimental study of moviepilot. In *Proceedings of the 2Nd Challenge on Context-Aware Movie Recommendation*, CAMRa '11, pages 23–28, New York, NY, USA, 2011. ACM.
- [28] H.-s. Huang, K.-l. Lin, J. Y.-j. Hsu, and C.-n. Hsu. Item-triggered recommendation for identifying potential customers of cold sellers in supermarkets. In Workshop on the Next Stage of Recommender Systems Research, in conjunction with the 2005 International Conference on Intelligent User Interfaces, 2005.
- [29] N. Jones and P. Pu. User Technology Adoption Issues in Recommender Systems. In Proceedings of the 2007 Networking and Electronic Commerce Research Conference, pages 379–394, Riva del Garda, 2007.
- [30] J. G. Kemeny. Mathematics without numbers. Daedalus, 88(4):577–591, 1959.
- [31] M. G. Kendall. A new measure of rank correlation. Biometrika, pages 81–93, 1938.
- [32] Y. Koren. Factorization meets the neighborhood: a multifaceted collaborative filtering model. In *Proceedings of the 14th ACM SIGKDD international conference on Knowledge discovery and data mining*, KDD '08, pages 426–434, New York, 2008. ACM.
- [33] Y. Koren, R. Bell, and C. Volinsky. Matrix factorization techniques for recommender systems. *Computer*, 42(8):30–37, August 2009.
- [34] A. Krzywicki, W. Wobcke, X. Cai, M. Bain, A. Mahidadia, P. Compton, and Y. S. Kim. Using a critic to promote less popular candidates in a people-to-people recommender system. In Proceedings of the Twenty-Fourth Conference on Innovative Applications of Artificial Intelligence. AAAI, 2012.
- [35] A. Lacerda and N. Ziviani. Building user profiles to improve user experience in recommender systems. In Proceedings of the sixth ACM international conference on Web search and data mining, WSDM '13, pages 759–764, New York, NY, USA, 2013. ACM.
- [36] K.-L. Lin. Item-triggered Recommendation. PhD thesis, National Taiwan University, 2005.
- [37] X. Liu, Y. Tian, M. Ye, and W.-C. Lee. Exploring personal impact for group recommendation. In Proceedings of the 21st ACM International Conference on Information and Knowledge Management, CIKM '12, pages 674–683, New York, NY, USA, 2012. ACM.

- [38] J. Masthoff. Group modeling: Selecting a sequence of television items to suit a group of viewers. In *Personalized Digital Television*, pages 93–141. Springer, 2004.
- [39] J. F. McCarthy and T. D. Anagnost. Musicfx: An arbiter of group preferences for computer supported collaborative workouts. In *Proceedings of the 1998 ACM Conference on Computer* Supported Cooperative Work, CSCW '98, pages 363–372, New York, NY, USA, 1998. ACM.
- [40] K. McCarthy, M. Salamó, L. Coyle, L. McGinty, B. Smyth, and P. Nixon. Cats: A synchronous approach to collaborative group recommendation. In *FLAIRS Conference*, volume 2006, pages 86–91, 2006.
- [41] S. M. McNee, J. Riedl, and J. A. Konstan. Being accurate is not enough: how accuracy metrics have hurt recommender systems. In CHI'06 Extended Abstracts on Human Factors in Computing Systems, CHI EA'06, pages 1097–1101, New York, NY, USA, 2006. ACM.
- [42] J. F. Nash. Equilibrium points in n-person games. *Proceedings of the National Academy of Sciences*, 36(1):48–49, 1950.
- [43] G. Oestreicher-Singer and A. Sundararajan. Recommendation networks and the long tail of electronic commerce. *MIS Quarterly*, 36(1):65–84, March 2012.
- [44] Y.-J. Park. The adaptive clustering method for the long tail problem of recommender systems. *Knowledge and Data Engineering, IEEE Transactions on*, 25(8):1904–1915, 2013.
- [45] Y.-J. Park and A. Tuzhilin. The long tail of recommender systems and how to leverage it. In *Proceedings of the 2008 ACM conference on Recommender systems*, RecSys '08, pages 11–18, New York, NY, USA, 2008. ACM.
- [46] D. M. Pennock, E. Horvitz, and C. L. Giles. Social choice theory and recommender systems: Analysis of the axiomatic foundations of collaborative filtering. In *Proc.* 17th AAAI, 2000.
- [47] L. Pizzato, T. Rej, J. Akehurst, I. Koprinska, K. Yacef, and J. Kay. Recommending people to people: the nature of reciprocal recommenders with a case study in online dating. *User Modeling and User-Adapted Interaction*, 22:1–42, 2012.
- [48] P. Pu, L. Chen, and R. Hu. Evaluating recommender systems from the user's perspective: survey of the state of the art. *User Modeling and User-Adapted Interaction*, 22(4-5):317–355, 2012.
- [49] L. Quijano-Sanchez, J. A. Recio-Garcia, and B. Diaz-Agudo. An architecture and functional description to integrate social behaviour knowledge into group recommender systems. *Applied Intelligence*, 40(4):732–748, 2014.
- [50] S. Rendle. Factorization machines with libFM. ACM Transactions on Intelligent Systems and Technology, 3(3):1–22, May 2012.
- [51] P. Resnick and H. R. Varian. Recommender systems. Communications of the ACM, 40(3):56–58, Mar. 1997.
- [52] A. Said, S. Berkovsky, and E. W. De Luca. Group recommendation in context. In Proceedings of the 2Nd Challenge on Context-Aware Movie Recommendation, CAMRa '11, pages 2–4, New York, NY, USA, 2011. ACM.

- [53] G. Shani and A. Gunawardana. Evaluating recommendation systems. In F. Ricci, L. Rokach, B. Shapira, and P. B. Kantor, editors, *Recommender Systems Handbook*, pages 257–297. Springer US, 2011.
- [54] J. Von Neumann and O. Morgenstern. Theory of games and economic behavior (2d rev. 1947.
- [55] M. Ye, X. Liu, and W.-C. Lee. Exploring social influence for recommendation: A generative model approach. In *Proceedings of the 35th International ACM SIGIR Conference on Research and Development in Information Retrieval*, SIGIR '12, pages 671–680, New York, NY, USA, 2012. ACM.
- [56] H. Yin, B. Cui, J. Li, J. Yao, and C. Chen. Challenging the long tail recommendation. Proc. VLDB Endow., 5(9):896–907, May 2012.
- [57] Z. Yu, X. Zhou, Y. Hao, and J. Gu. Tv program recommendation for multiple viewers based on user profile merging. *User Modeling and User-Adapted Interaction*, 16(1):63–82, 2006.
- [58] Q. Yuan, G. Cong, and C.-Y. Lin. Com: A generative model for group recommendation. In Proceedings of the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, KDD '14, pages 163–172, New York, NY, USA, 2014. ACM.
- [59] J. Zhang and M. Casari. How groups reach agreement in risky choices: an experiment. *Economic Inquiry*, 50(2):502–515, 2012.
- [60] M. Zhang. Enhancing diversity in top-n recommendation. In Proceedings of the third ACM conference on Recommender systems, RecSys '09, pages 397–400, New York, NY, USA, 2009. ACM.
- [61] M. Zhang and N. Hurley. Avoiding monotony: improving the diversity of recommendation lists. In *Proceedings of the 2008 ACM conference on Recommender systems*, RecSys '08, pages 123–130, New York, NY, USA, 2008. ACM.