An Incomplete Reading list for Human computer collaboration

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1. Overview of HCC (11 papers):

Concepts, what HCC is and what HCC is not:

- Gerber, A., Derckx, P., Döppner, D. A., & Schoder, D. (2020, January). Conceptualization of the Human-Machine Symbiosis–A Literature Review. In *Proceedings of the 53rd Hawaii International Conference on System Sciences*.

- Dellermann, D., Ebel, P., Söllner, M., & Leimeister, J. M. (2019). Hybrid intelligence. *Business & Information Systems Engineering*, *61*(5), 637-643.

From system/design perspective:

- Cooke, N., Demir, M., & Huang, L. (2020, July). A Framework for Human-Autonomy Team Research. In *International Conference on Human-Computer Interaction* (pp. 134-146). Springer, Cham.

From econ perspective:

- Jiao, J., Zhou, F., Gebraeel, N. Z., & Duffy, V. (2020). Towards augmenting cyber-physical-human collaborative cognition for human-automation interaction in complex manufacturing and operational environments. *International Journal of Production Research*, 1-23.

- Proserpio, D., Hauser, J. R., Liu, X., Amano, T., Burnap, A., Guo, T., ... & Timoshenko, A. (2020). Soul and machine (learning). *Marketing Letters*, 1-12.

From sociology perspective:

- Tao, Y. (2018). Social brain: A perspective of swarm intelligence in humans. *Available at SSRN 3302461*.

From behavioral perspective:

- Seeber, I., Waizenegger, L., Seidel, S., Morana, S., Benbasat, I., & Lowry, P. B. (2020). Collaborating with technology-based autonomous agents. *Internet Research*.

- Bellamy, R. K., Andrist, S., Bickmore, T., Churchill, E. F., & Erickson, T. (2017, May). Human-Agent Collaboration: Can an Agent be a Partner?. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (pp. 1289-1294).

- Damacharla, P., Javaid, A. Y., Gallimore, J. J., & Devabhaktuni, V. K. (2018). Common metrics to benchmark human-machine teams (HMT): A review. *IEEE Access*, *6*, 38637-38655.

- Sycara, K., & Sukthankar, G. (2006). Literature review of teamwork models. *Robotics Institute, Carnegie Mellon University*, *31*, 31.

- Seeber, I., Bittner, E., Briggs, R. O., de Vreede, T., De Vreede, G. J., Elkins, A., ... & Schwabe, G. (2020). Machines as teammates: A research agenda on AI in team collaboration. *Information & management*, *57*(2), 103174.

2. HCC in business settings: big picture problems (15 papers)

- Raisch, S., & Krakowski, S. (2020). Artificial Intelligence and Management: The Automation-Augmentation Paradox. *Academy of Management Review*, (ja).

- Corbett-Davies, S., Pierson, E., Feller, A., Goel, S., & Huq, A. (2017, August). Algorithmic decision making and the cost of fairness. *Proceedings of the 23rd acm sigkdd international conference on knowledge discovery and data mining* (pp. 797-806).
    - Semenova, E., Perevoshchikova, E., Ivanov, A., & Erofeev, M. (2019). Fairness Meets Machine Learning: Searching For A Better Balance. *Higher School of Economics Research Paper No. WP BRP*, *93*.
    - Adomavicius, G., & Yang, M. (2019). Integrating Behavioral, Economic, and Technical Insights to Address Algorithmic Bias: Challenges and Opportunities for IS Research. *Economic, and Technical Insights to Address Algorithmic Bias: Challenges and Opportunities for IS Research (September 3, 2019)*.

- Cates, S., Lawrence, S., Penedo, C., & Samatova, V. (2017). A machine learning approach to research curation for investment process. *Journal of Investment Management*, *15*(1), 39-49.

- Zinovyeva, E., Härdle, W. K., & Lessmann, S. (2020). Antisocial online behavior detection using deep learning. *Decision Support Systems*, 113362.

- Guinn, C. I. (1996, June). Mechanisms for mixed-initiative human-computer collaborative discourse. In *Proceedings of the 34th annual meeting on Association for Computational Linguistics* (pp. 278-285). Association for Computational Linguistics.

- Devabhaktuni, V. K. (2019). Human Error Prediction Using Eye Tracking to Improvise Team Cohesion in Human-Machine Teams. *Advances in Human Error, Reliability, Resilience, and Performance*, 47.

- Bansal, G., Nushi, B., Kamar, E., Horvitz, E., & Weld, D. S. (2020). Optimizing AI for Teamwork. *arXiv preprint arXiv:2004.13102*.

- Sheng, V. S., Provost, F., & Ipeirotis, P. G. (2008, August). Get another label? improving data quality and data mining using multiple, noisy labelers. In *Proceedings of the 14th*

ACM SIGKDD international conference on Knowledge discovery and data mining (pp. 614-622).

- Ramakrishnan, R. (2019). *Error discovery through human-AI collaboration* (Doctoral dissertation, Massachusetts Institute of Technology).

- Fügener, A., Grahl, J., Gupta, A., & Ketter, W. (2019). *Collaboration and Delegation Between Humans and AI: An Experimental Investigation of the Future of Work* (No. ERS-2019-003-LIS).

- Hoffman, G. (2019). Evaluating fluency in human–robot collaboration. *IEEE Transactions on Human-Machine Systems*, *49*(3), 209-218.

- Okamura, K., & Yamada, S. (2020). Adaptive trust calibration for human-AI collaboration. *Plos one*, *15*(2), e0229132.

- Schmidt, P., & Biessmann, F. (2020, August). Calibrating Human-AI Collaboration: Impact of Risk, Ambiguity and Transparency on Algorithmic Bias. In *International Cross-Domain Conference for Machine Learning and Knowledge Extraction* (pp. 431-449). Springer, Cham.

3. HCC for solving specific business problems. When do AIs help? when they hurt? (28 papers)

- Corgnet, B., Hernán-Gonzalez, R., & Mateo, R. (2019). Rac (g) e Against the Machine? Social Incentives When Humans Meet Robots.

- Fügener, A., Grahl, J., Gupta, A., & Ketter, W. (2019). *Collaboration and Delegation Between Humans and AI: An Experimental Investigation of the Future of Work* (No. ERS-2019-003-LIS).

- Nina, R., & Yurii, T. (2015, December). Simulation Model of the Decision-Making Support for Human-Machine Systems Operators. In *2015 IEEE Seventh International Conference on Intelligent Computing and Information Systems (ICICIS)* (pp. 81-87). IEEE.

- Hong, H., Lin, X., Tang, K., & Wang, J. (2019). Artificial-Intelligence Assisted Decision Making: A Statistical Framework. *Available at SSRN 3508224*.

- Burnap, A., Hauser, J. R., & Timoshenko, A. (2019). Design and evaluation of product aesthetics: a human-machine hybrid approach. *Available at SSRN 3421771*.

- Cowgill, B. (2019). Bias and productivity in humans and machines.

- Bai, B., Dai, H., Zhang, D., Zhang, F., & Hu, H. (2020). The Impacts of Algorithmic Work Assignment on Fairness Perceptions and Productivity: Evidence from Field Experiments. *Available at SSRN*.

- Luong, A., Kumar, N., & Lang, K. R. (2020). Algorithmic Decision-Making: Examining the Interplay of People, Technology, and Organizational Practices through an Economic Experiment. *Technology, and Organizational Practices through an Economic Experiment (January 31, 2020)*.

- Cowgill, B., Dell'Acqua, F., Deng, S., Hsu, D., Verma, N., & Chaintreau, A. (2020, July). Biased Programmers? Or Biased Data? A Field Experiment in Operationalizing AI Ethics. In *Proceedings of the 21st ACM Conference on Economics and Computation* (pp. 679-681).

- Athey, S. C., Bryan, K. A., & Gans, J. S. (2020, May). The allocation of decision authority to human and artificial intelligence. In *AEA Papers and Proceedings* (Vol. 110, pp. 80-84).

- Pandey, R., Purohit, H., Castillo, C., & Shalin, V. L. (2020). Modeling and Mitigating Human Annotation Errors to Design Efficient Stream Processing Systems with Human-in-the-loop Machine Learning. *arXiv preprint arXiv:2007.03177*.

- Rojas, R. F., Debie, E., Fidock, J., Barlow, M., Kasmarik, K., Anavatti, S., ... & Abbass, H. (2019, December). Encephalographic assessment of situation awareness in teleoperation of human-swarm teaming. In *International Conference on Neural Information Processing* (pp. 530-539). Springer, Cham.

- Demir, M., McNeese, N. J., & Cooke, N. J. (2016, March). Team communication behaviors of the human-automation teaming. In *2016 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA)* (pp. 28-34). IEEE.

- Bansal, G., Nushi, B., Kamar, E., Weld, D. S., Lasecki, W. S., & Horvitz, E. (2019, July). Updates in human-ai teams: Understanding and addressing the performance/compatibility tradeoff. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 33, pp. 2429-2437).

- Karlinsky-Shichor, Y., & Netzer, O. (2019). Automating the B2B Salesperson Pricing Decisions: Can Machines Replace Humans and When?. *Available at SSRN 3368402*.

- Hinds, P. J., Roberts, T. L., & Jones, H. (2004). Whose job is it anyway? A study of human-robot interaction in a collaborative task. *Human–Computer Interaction*, *19*(1-2), 151-181.

3.1 Sub-topic: Algorithm appreciation and aversion

- Logg, J.M., Minson, J.A., and Moore, D.A. Algorithm appreciation: People prefer algorithmic to human judgment. Organizational Behavior and Human Decision Processes, 151, (March 2019), 90–103.

- Dietvorst, B. J., Simmons, J. P., & Massey, C. (2015). Algorithm aversion: People erroneously avoid algorithms after seeing them err. *Journal of Experimental Psychology: General*, *144*(1), 114.

- Castelo, N., Bos, M.W., and Lehmann, D.R. Task-Dependent Algorithm Aversion. Journal of Marketing Research, 56, 5 (October 2019), 809–825.

- Longoni, C., Bonezzi, A., and Morewedge, C.K. Resistance to Medical Artificial Intelligence. Journal of Consumer Research, 46, 4 (December 2019), 629–650.

- Dietvorst, B. J., Simmons, J. P., & Massey, C. (2018). Overcoming algorithm aversion: People will use imperfect algorithms if they can (even slightly) modify them. *Management Science*, *64*(3), 1155-1170.

3.2 Sub-topic: Team studies

- Seeber, I., Bittner, E., Briggs, R. O., de Vreede, T., De Vreede, G. J., Elkins, A., ... & Schwabe, G. (2020). Machines as teammates: A research agenda on AI in team collaboration. *Information & management*, *57*(2), 103174.

- Drnec, K., Gremillion, G., Donavanik, D., Canady, J. D., Atwater, C., Carter, E., ... & Metcalfe, J. S. (2018, July). The role of psychophysiological measures as implicit communication within mixed-initiative teams. In *International Conference on Virtual, Augmented and Mixed Reality* (pp. 299-313). Springer, Cham.

- Schaefer, K. E., Baker, A. L., Brewer, R. W., Patton, D., Canady, J., & Metcalfe, J. S. (2019, May). Assessing multi-agent human-autonomy teams: US Army Robotic Wingman gunnery operations. In *Micro-and Nanotechnology Sensors, Systems, and Applications XI* (Vol. 10982, p. 109822B). International Society for Optics and Photonics.

- Demir, M. (2017). *The Impact of Coordination Quality on Coordination Dynamics and Team Performance: When Humans Team with Autonomy* (Doctoral dissertation, Arizona State University).

- McNeese, N. J., Demir, M., Cooke, N. J., & Myers, C. (2018). Teaming with a synthetic teammate: Insights into human-autonomy teaming. *Human factors*, *60*(2), 262-273.

- Grimm, D., Demir, M., Gorman, J. C., & Cooke, N. J. (2018, June). The complex dynamics of team situation awareness in human-autonomy teaming. In *2018 IEEE Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA)* (pp. 103-109). IEEE.

- Demir, M., Likens, A. D., Cooke, N. J., Amazeen, P. G., & McNeese, N. J. (2018). Team coordination and effectiveness in human-autonomy teaming. *IEEE Transactions on Human-Machine Systems*, *49*(2), 150-159.

4. Application papers (6 papers)

- Cody, J. R., Roundtree, K. A., & Adams, J. A. (2020). Human-Collective Collaborative Site Selection. *arXiv preprint arXiv:2004.09581*.

- Wei, X., Zhang, Z., Zhang, M., & Zeng, D. D. (2019). Combining Crowd and Machine Intelligence to Detect False News in Social Media. *Available at SSRN 3355763*.

- Creamer, G. G., Ren, Y., Sacamoto, Y., & Nickerson, J. V. (2013, September). News and sentiment analysis of the european market with a hybrid expert weighting algorithm. In *2013 International Conference on Social Computing* (pp. 391-396). IEEE.

- Costello, A. M., Down, A. K., & Mehta, M. N. (2019). Machine+ Man: A field experiment on the role of discretion in augmenting AI-based lending models. *Available at SSRN 3490370*.

- X Wlodarczak, P., Ally, M., & Soar, J. (2011). Big Data Analysis, from Cloud to Crowd. *Available at SSRN 2565426*.

- Grønsund, T., & Aanestad, M. (2020). Augmenting the algorithm: Emerging human-in-the-loop work configurations. *The Journal of Strategic Information Systems*, *29*(2), 101614.