References

- [1] R. Mirsky, K. Baraka, T. Kessler Faulkner, J. Hart, X. Xiao, H. Yedidsion, I. Idrees, and E. K. Gordon, "2nd Workshop on Human-Interactive Robot Learning (HIRL)," in *Companion of the 2023 ACM/IEEE International Conference on Human-Robot Interaction*, (Stockholm Sweden), pp. 947–949, ACM, Mar. 2023. 2 citations (Semantic Scholar/DOI) [2025-05-14].
- [2] S. Ambhore, "A Comprehensive Study on Robot Learning from Demonstration," in 2020 2nd International Conference on Innovative Mechanisms for Industry Applications (ICIMIA), (Bangalore, India), pp. 291–299, IEEE, Mar. 2020. 10 citations (Semantic Scholar/DOI) [2025-05-14].
- [3] P. Lanillos and G. Cheng, "Adaptive Robot Body Learning and Estimation Through Predictive Coding," in 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), (Madrid), pp. 4083–4090, IEEE, Oct. 2018. 64 citations (Semantic Scholar/DOI) [2025-05-14].
- [4] Q. Zhao, L. Zhang, L. Wu, H. Qiao, and Z. Liu, "A Real 3D Embodied Dataset for Robotic Active Visual Learning," *IEEE Robotics and Automation Letters*, vol. 7, pp. 6646–6652, July 2022.
- [5] K. Liang, Y. Wang, L. Pan, Y. Tang, J. Li, Y. Lin, and M. Pan, "A Robot Learning from Demonstration Method Based on Neural Network and Teleoperation," *Arabian Journal for Science and Engineering*, vol. 49, pp. 1659–1672, Feb. 2024. 2 citations (Semantic Scholar/DOI) [2025-05-14].
- [6] B. D. Argall, S. Chernova, M. Veloso, and B. Browning, "A survey of robot learning from demonstration," *Robotics and Autonomous Systems*, vol. 57, pp. 469–483, May 2009. 3793 citations (Semantic Scholar/DOI) [2025-05-14].
- [7] P. Neto, M. Simão, N. Mendes, and M. Safeea, "Gesture-based human-robot interaction for human assistance in manufacturing," *The International Journal of Advanced Manufacturing Technology*, vol. 101, pp. 119–135, Mar. 2019. 129 citations (Semantic Scholar/DOI) [2025-05-14].
- [8] R. Mirsky, K. Baraka, T. K. Faulkner, J. Hart, H. Yedidsion, and X. Xiao, "Human-Interactive Robot Learning (HIRL)," in 2022 17th ACM/IEEE International Conference on Human-Robot Interaction (HRI), (Sapporo, Japan), pp. 1278–1280, IEEE, Mar. 2022. 3 citations (Semantic Scholar/DOI) [2025-05-14].
- [9] A.-M. Velentza, N. Fachantidis, and I. Lefkos, "Human-robot interaction methodology: Robot teaching activity," *MethodsX*, vol. 9, p. 101866, 2022. 9 citations (Semantic Scholar/DOI) [2025-05-14].
- [10] A. Angleraud, Q. Houbre, V. Kyrki, and R. Pieters, "Human-Robot Interactive Learning Architecture using Ontologies and Symbol Manipulation," in 2018 27th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), (Nanjing), pp. 384–389, IEEE, Aug. 2018. 8 citations (Semantic Scholar/DOI) [2025-05-14].
- [11] A. Hussein, M. M. Gaber, E. Elyan, and C. Jayne, "Imitation Learning: A Survey of Learning Methods," *ACM Computing Surveys*, vol. 50, pp. 1–35, Mar. 2018. 400 citations (Semantic Scholar/DOI) [2025-05-14].
- [12] T. Ogata, N. Masago, S. Sugano, and Jun Tani, "Interactive learning in human-robot collaboration," in Proceedings 2003 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2003) (Cat. No.03CH37453), vol. 1, (Las Vegas, Nevada, USA), pp. 162–167, IEEE, 2003. 11 citations (Semantic Scholar/DOI) [2025-05-14].

- [13] M. Chetouani, "Interactive Robot Learning: An Overview," in *Human-Centered Artificial Intelligence* (M. Chetouani, V. Dignum, P. Lukowicz, and C. Sierra, eds.), vol. 13500, pp. 140–172, Cham: Springer International Publishing, 2023. Series Title: Lecture Notes in Computer Science.
- [14] S. R. Ahmadzadeh, P. Kormushev, and D. G. Caldwell, "Interactive robot learning of visuospatial skills," in 2013 16th International Conference on Advanced Robotics (ICAR), (Montevideo, Uruguay), pp. 1–8, IEEE, Nov. 2013. 4 citations (Semantic Scholar/DOI) [2025-05-14].
- [15] Y. Kim, H. Jeon, and B.-Y. Kang, "Interactive Robot-Robot Reinforcement Learning for Object Balancing Task," in 2024 IEEE International Conference on Consumer Electronics (ICCE), (Las Vegas, NV, USA), pp. 1–6, IEEE, Jan. 2024. 0 citations (Semantic Scholar/DOI) [2025-05-14].
- [16] A. L. Thomaz, M. Cakmak, C. Chao, N. DePalma, and M. Gielniak, "Interactive robot task learning," in CHI '10 Extended Abstracts on Human Factors in Computing Systems, (Atlanta Georgia USA), pp. 3037–3040, ACM, Apr. 2010. 0 citations (Semantic Scholar/DOI) [2025-05-14].
- [17] L. Hindemith, O. Bruns, A. M. Noller, N. Hemion, S. Schneider, and A.-L. Vollmer, "Interactive Robot Task Learning: Human Teaching Proficiency With Different Feedback Approaches," *IEEE Transactions* on Cognitive and Developmental Systems, vol. 15, pp. 1938–1947, Dec. 2023. 6 citations (Semantic Scholar/DOI) [2025-05-14].
- [18] P. E. Rybski, K. Yoon, J. Stolarz, and M. M. Veloso, "Interactive robot task training through dialog and demonstration," in *Proceedings of the ACM/IEEE international conference on Human-robot interaction*, (Arlington Virginia USA), pp. 49–56, ACM, Mar. 2007. 143 citations (Semantic Scholar/DOI) [2025-05-14].
- [19] J. Hua, L. Zeng, G. Li, and Z. Ju, "Learning for a Robot: Deep Reinforcement Learning, Imitation Learning, Transfer Learning," Sensors, vol. 21, p. 1278, Feb. 2021. 174 citations (Semantic Scholar/DOI) [2025-05-14].
- [20] J. Lin, Z. Ma, R. Gomez, K. Nakamura, B. He, and G. Li, "A Review on Interactive Reinforcement Learning From Human Social Feedback," *IEEE Access*, vol. 8, pp. 120757–120765, 2020. 85 citations (Semantic Scholar/DOI) [2025-05-14].
- [21] T. Araki, T. Nakamura, and T. Nagai, "Long-term learning of concept and word by robots: Interactive learning framework and preliminary results," in 2013 IEEE/RSJ International Conference on Intelligent Robots and Systems, (Tokyo), pp. 2280–2287, IEEE, Nov. 2013. 16 citations (Semantic Scholar/DOI) [2025-05-14].
- [22] S. Chernova and M. Veloso, "Multi-thresholded approach to demonstration selection for interactive robot learning," in *Proceedings of the 3rd ACM/IEEE international conference on Human robot interaction*, (Amsterdam The Netherlands), pp. 225–232, ACM, Mar. 2008. 57 citations (Semantic Scholar/DOI) [2025-05-14].
- [23] S. Ikemoto, H. B. Amor, T. Minato, H. Ishiguro, and B. Jung, "Physical interaction learning: Behavior adaptation in cooperative human-robot tasks involving physical contact," in RO-MAN 2009 The 18th IEEE International Symposium on Robot and Human Interactive Communication, (Toyama, Japan), pp. 504–509, IEEE, Sept. 2009. 19 citations (Semantic Scholar/DOI) [2025-05-14].
- [24] A. Billard and R. Siegwart, "Robot learning from demonstration," *Robotics and Autonomous Systems*, vol. 47, pp. 65–67, June 2004. 792 citations (Semantic Scholar/DOI) [2025-05-14].
- [25] H. Hu, H. Yan, X. Yang, and Y. Lou, "Robot Learning From Demonstration for Assembly With Sequential Assembly Movement Primitives," *IEEE/ASME Transactions on Mechatronics*, vol. 29, pp. 2685–2696, Aug. 2024. 0 citations (Semantic Scholar/DOI) [2025-05-14].
- [26] E. Senft, P. Baxter, J. Kennedy, S. Lemaignan, and T. Belpaeme, "Supervised autonomy for online learning in human-robot interaction," *Pattern Recognition Letters*, vol. 99, pp. 77–86, Nov. 2017. 43 citations (Semantic Scholar/DOI) [2025-05-14].

- [27] M. Heckmann, H. Brandl, J. Schmuedderich, X. Domont, B. Bolder, I. Mikhailova, H. Janssen, M. Gienger, A. Bendig, T. Rodemann, M. Dunn, F. Joublin, and C. Goerick, "Teaching a humanoid robot: Headset-free speech interaction for audio-visual association learning," in RO-MAN 2009 The 18th IEEE International Symposium on Robot and Human Interactive Communication, (Toyama, Japan), pp. 422–427, IEEE, Sept. 2009.
- [28] L. She, Y. Cheng, J. Y. Chai, Y. Jia, S. Yang, and N. Xi, "Teaching Robots New Actions through Natural Language Instructions," in *The 23rd IEEE International Symposium on Robot and Human Interactive Communication*, (Edinburgh, UK), pp. 868–873, IEEE, Aug. 2014. 48 citations (Semantic Scholar/DOI) [2025-05-14].
- [29] I. Lutkebohle, J. Peltason, L. Schillingmann, B. Wrede, S. Wachsmuth, C. Elbrechter, and R. Haschke, "The curious robot Structuring interactive robot learning," in 2009 IEEE International Conference on Robotics and Automation, (Kobe), pp. 4156–4162, IEEE, May 2009. 56 citations (Semantic Scholar/DOI) [2025-05-14].
- [30] K. Zhou, A. Richtsfeld, M. Zillich, M. Vincze, A. Vrecko, and D. Skocaj, "Visual information abstraction for interactive robot learning," in 2011 15th International Conference on Advanced Robotics (ICAR), (Tallinn, Estonia), pp. 328–334, IEEE, June 2011.