

BIBLIOGRAPHY

- [1] “Ageing.” [Online]. Available: <http://www.un.org/en/sections/issues-depth/ageing/>
- [2] N. Super, “Who will be there to care?: The growing gap between caregiver supply and demand.” National Health Policy Forum Washington, DC, 2002.
- [3] C. Jayawardena, I. Kuo, E. Broadbent, and B. A. MacDonald, “Socially assistive robot healthbot: Design, implementation, and field trials,” *IEEE Syst. J.*, no. 99, pp. 1–12, 2014.
- [4] S. Koceski and N. Koceska, “Evaluation of an assistive telepresence robot for elderly healthcare,” *Journal of Medical Systems*, vol. 40, no. 5, pp. 1–7, 2016.
- [5] J. Pripfl, T. Körtner, D. Batko-Klein, D. Hebesberger, M. Weninger, C. Gisinger, S. Frennert, H. Eftring, M. Antona, I. Adami *et al.*, “Results of a real world trial with a mobile social service robot for older adults,” in *2016 11th ACM/IEEE Int. Conf. on Human-Robot Interaction (HRI)*, 2016, pp. 497–498.
- [6] C. Bartneck and J. Forlizzi, “A design-centred framework for social human-robot interaction,” in *13th IEEE International Workshop on Robot and Human Interactive Communication, ROMAN 2004, 2004*. IEEE, 2004, pp. 591–594.
- [7] S. Danilava, S. Busemann, and C. Schommer, “Artificial conversational companions a requirements analysis,” in *Proceedings 4th International Conference on Social Robotics, ROMAN 2002, 2002*. Springer, 2002, pp. 1–10.

- ence on Agents and Artificial Intelligence*”. SciTePress 2012, 2012, pp. 282–289.
- [8] T. Fong, I. Nourbakhsh, and K. Dautenhahn, “A survey of socially interactive robots,” *Robotics and autonomous systems*, vol. 42, no. 3, pp. 143–166, 2003.
- [9] M. G. Rashed, R. Suzuki, A. Lam, Y. Kobayashi, and Y. Kuno, “Toward museum guide robots proactively initiating interaction with humans,” in *Proceedings of the Tenth Annual ACM/IEEE International Conference on Human-Robot Interaction Extended Abstracts*. ACM, 2015, pp. 1–2.
- [10] G. Trovato, J. Ramos, H. Azevedo, A. Moroni, S. Magossi, H. Ishii, R. Simmons, and A. Takanishi, “Designing a receptionist robot: Effect of voice and appearance on anthropomorphism,” in *2015 24th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*. IEEE, 2015, pp. 235–240.
- [11] H. I. Christensen, “Intelligent home appliances,” in *Robotics Research*. Springer, 2003, pp. 319–327.
- [12] F. Kaplan, “Everyday robotics: robots as everyday objects,” in *Proceedings of the 2005 joint conference on Smart objects and ambient intelligence: innovative context-aware services: usages and technologies*. ACM, 2005, pp. 59–64.
- [13] K. Dautenhahn, “The art of designing socially intelligent agents: Science, fiction, and the human in the loop,” *Applied artificial intelligence*, vol. 12, no. 7-8, pp. 573–617, 1998.
- [14] H. Hastie, M. Y. Lim, S. Janarthanam, A. Deshmukh, R. Aylett, M. E. Foster, and L. Hall, “I remember you!: Interaction with memory for an empathic virtual robotic tutor,” in *Proceedings of the 2016 International Conference on Autonomous Agents & Multiagent Systems*. International

Foundation for Autonomous Agents and Multiagent Systems, 2016, pp. 931–939.

- [15] T. Matsumoto, S. Satake, T. Kanda, M. Imai, and N. Hagita, “Do you remember that shop?computational model of spatial memory for shopping companion robots,” in *7th ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2012*. IEEE, 2012, pp. 447–454.
- [16] D. O. Johnson, R. H. Cuijpers, J. F. Juola, E. Torta, M. Simonov, A. Frisiello, M. Bazzani, W. Yan, C. Weber, S. Wermter *et al.*, “Socially assistive robots: a comprehensive approach to extending independent living,” *International journal of social robotics*, vol. 6, no. 2, pp. 195–211, 2014.
- [17] E. Short, K. Swift-Spong, J. Greczek, A. Ramachandran, A. Litoiu, E. C. Grigore, D. Feil-Seifer, S. Shuster, J. J. Lee, S. Huang *et al.*, “How to train your dragonbot: Socially assistive robots for teaching children about nutrition through play,” in *The 23rd IEEE International Symposium on Robot and Human Interactive Communication, RO-MAN: 2014*. IEEE, 2014, pp. 924–929.
- [18] M. Petit, T. Fischer, and Y. Demiris, “Lifelong augmentation of multimodal streaming autobiographical memories,” *IEEE Transactions on Cognitive and Developmental Systems*, vol. 8, no. 3, pp. 201–213, 2016.
- [19] R. Gockley, A. Bruce, J. Forlizzi, M. Michalowski, A. Mundell, S. Rosenthal, B. Sellner, R. Simmons, K. Snipes, A. C. Schultz *et al.*, “Designing robots for long-term social interaction,” in *Intelligent Robots and Systems, 2005.(IROS 2005). 2005 IEEE/RSJ International Conference on*. IEEE, 2005, pp. 1338–1343.
- [20] P. Baxter, T. Belpaeme, L. Canamero, P. Cosi, Y. Demiris, V. Enescu, A. Hiolle, I. Kruijff-Korbayova, R. Looije, M. Nalin *et al.*, “Long-term human-robot interaction with young users,” in *IEEE/ACM Human-Robot Interaction 2011 Conference (Robots with Children Workshop)*, 2011.

- [21] R. Wood, P. Baxter, and T. Belpaeme, “A review of long-term memory in natural and synthetic systems,” *Adaptive Behavior*, vol. 20, no. 2, pp. 81–103, 2012.
- [22] P. Baxter and T. Belpaeme, “Pervasive memory: the future of long-term social hri lies in the past,” in *Third international symposium on new frontiers in human-robot interaction at AISB*, 2014.
- [23] E. Tulving and D. Murray, “Elements of episodic memory,” *Canadian Psychology*, vol. 26, no. 3, pp. 235–238, 1985.
- [24] M.-L. Sánchez, M. Correa, L. Martínez, and J. Ruiz-del Solar, “An episodic long-term memory for robots: The bender case,” in *Robot Soccer World Cup*. Springer, 2015, pp. 264–275.
- [25] Z. Kasap and N. Magnenat-Thalmann, “Towards episodic memory-based long-term affective interaction with a human-like robot,” in *RO-MAN, 2010 IEEE*. IEEE, 2010, pp. 452–457.
- [26] Z. Kasap, M. B. Moussa, P. Chaudhuri, and N. Magnenat-Thalmann, “Making them remember-emotional virtual characters with memory,” *IEEE Computer Graphics and Applications*, vol. 29, no. 2, pp. 20–29, 2009.
- [27] F. Dayoub, T. Duckett, G. Cielniak *et al.*, “Toward an object-based semantic memory for long-term operation of mobile service robots,” 2010.
- [28] W. C. Ho, K. Dautenhahn, M. Y. Lim, and K. Du Casse, “Modelling human memory in robotic companions for personalisation and long-term adaptation in hri.” in *BICA*, 2010, pp. 64–71.
- [29] G. Pointeau, M. Petit, and P. F. Dominey, “Successive developmental levels of autobiographical memory for learning through social interaction.” *IEEE Trans. Autonomous Mental Development*, vol. 6, no. 3, pp. 200–212, 2014.

- [30] W. C. Ho, K. Dautenhahn, M. Y. Lim, P. A. Vargas, R. Aylett, and S. Enz, “An initial memory model for virtual and robot companions supporting migration and long-term interaction,” in *The 18th IEEE International Symposium on Robot and Human Interactive Communication, 2009. RO-MAN 2009*. IEEE, 2009, pp. 277–284.
- [31] R. Khosla, K. Nguyen, and M.-T. Chu, “Service personalisation of assistive robot for autism care,” in *Industrial Electronics Society, IECON 2015-41st Annual Conference of the IEEE*. IEEE, 2015, pp. 002 088–002 093.
- [32] G. S. Martins, L. Santos, and J. Dias, “Bum: Bayesian user model for distributed social robots,” in *2017 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN),.* IEEE, 2017, pp. 1279–1284.
- [33] F. Ali, D. Kwak, P. Khan, S. H. A. Ei-Sappagh, S. R. Islam, D. Park, and K.-S. Kwak, “Merged ontology and svm-based information extraction and recommendation system for social robots,” *IEEE Access*, vol. 5, pp. 12 364–12 379, 2017.
- [34] L. Woiceshyn, Y. Wang, G. Nejat, and B. Benhabib, “Personalized clothing recommendation by a social robot,” in *2017 IEEE International Symposium on Robotics and Intelligent Sensors (IRIS)*. IEEE, 2017, pp. 179–185.
- [35] A. B. Karami, K. Sehaba, and B. Encelle, “Adaptive artificial companions learning from users feedback,” *Adaptive Behavior*, vol. 24, no. 2, pp. 69–86, 2016.
- [36] M. Racca and V. Kyriki, “Active robot learning for temporal task models,” in *Proceedings of the 2018 ACM/IEEE International Conference on Human-Robot Interaction*, ser. HRI ’18. New York, NY, USA: ACM, 2018, pp. 123–131. [Online]. Available: <http://doi.acm.org/10.1145/3171221.3171241>
- [37] M. Sigalas, M. Maniadakis, and P. Trahanias, “Episodic memory formulation and its application in long-term hri,” in *2017 26th IEEE International*

Symposium on Robot and Human Interactive Communication (RO-MAN),. IEEE, 2017, pp. 599–606.

- [38] A. Cruz-Mayo and A. Tapus, “Learning users’ and personality-gender preferences in close human-robot interaction,” in *2017 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN),*. IEEE, 2017, pp. 791–798.
- [39] F. Ricci, L. Rokach, and B. Shapira, “Recommender systems: introduction and challenges,” in *Recommender systems handbook*. Springer, 2015, pp. 1–34.
- [40] S.-Y. Koo, K. Park, H. Kim, and D.-S. Kwon, “A dual-layer user model based cognitive system for user-adaptive service robots,” in *RO-MAN, 2011 IEEE*. IEEE, 2011, pp. 59–64.
- [41] K. Nelson and R. Fivush, “The emergence of autobiographical memory: A social cultural developmental theory,” *Psychological review*, vol. 111, no. 2, pp. 486–511, 2004.
- [42] J. A. Robinson and K. L. Swanson, “Autobiographical memory: The next phase,” *Applied Cognitive Psychology*, vol. 4, no. 4, pp. 321–335, 1990.
- [43] S. Bluck, N. Alea, T. Habermas, and D. C. Rubin, “A tale of three functions: The self-reported uses of autobiographical memory,” *Social Cognition*, vol. 23, no. 1, pp. 91–117, 2005.
- [44] M. A. Conway, “Memory and the self,” *Journal of memory and language*, vol. 53, no. 4, pp. 594–628, 2005.
- [45] J. Zhang, N. M. Thalmann, and J. Zheng, “Combining memory and emotion with dialog on social companion: A review,” in *Proceedings of the 29th International Conference on Computer Animation and Social Agents*. ACM, 2016, pp. 1–9.

- [46] M. Y. Lim, R. Aylett, W. C. Ho, S. Enz, and P. Vargas, “A socially-aware memory for companion agents,” in *International Workshop on Intelligent Virtual Agents*. Springer, 2009, pp. 20–26.
- [47] D. F. Glas, K. Wada, M. Shiomi, T. Kanda, H. Ishiguro, and N. Hagita, “Personal greetings: Personalizing robot utterances based on novelty of observed behavior,” *International Journal of Social Robotics*, vol. 9, no. 2, pp. 181–198, 2017.
- [48] M.-L. Sánchez, M. Correa, L. Martínez, and J. Ruiz-del Solar, “An episodic long-term memory for robots: The bender case,” in *Robot Soccer World Cup*. Springer, 2015, pp. 264–275.
- [49] D. H. Jonassen, K. Beissner, and M. Yacci, *Structural knowledge: Techniques for representing, conveying, and acquiring structural knowledge*. Routledge, 2013.
- [50] E. Loper and S. Bird, “Nltk: The natural language toolkit,” in *Proceedings of the ACL-02 Workshop on Effective tools and methodologies for teaching natural language processing and computational linguistics- Volume 1*. Association for Computational Linguistics, 2002, pp. 63–70.
- [51] J. Perkins, *Python 3 Text Processing with NLTK 3 Cookbook*. Packt Publishing - ebooks Account, Sep. 2014. [Online]. Available: <http://www.amazon.com/exec/obidos/redirect?tag=citeulike07-20&path=ASIN/1782167854>
- [52] C. Grover and R. Tobin, “Rule-based chunking and reusability,” in *Proceedings of the Fifth International Conference on Language Resources and Evaluation (LREC 2006)*, 2006.
- [53] R. Johns, “Likert items and scales,” *Survey Question Bank: Methods Fact Sheet*, vol. 1, pp. 1–11, 2010.

- [54] K. Dautenhahn, S. Woods, C. Kaouri, M. L. Walters, K. L. Koay, and I. Werry, “What is a robot companion-friend, assistant or butler?” in *Intelligent Robots and Systems, 2005.(IROS 2005). 2005 IEEE/RSJ International Conference on.* IEEE, 2005, pp. 1192–1197.
- [55] D. Whitney, M. Eldon, J. Oberlin, and S. Tellex, “Interpreting multimodal referring expressions in real time,” in *2016 IEEE International Conference on Robotics and Automation (ICRA)*, May 2016, pp. 3331–3338.
- [56] J. F. Gorostiza, R. Barber, A. M. Khamis, M. Malfaz, R. Pacheco, R. Rivas, A. Corrales, E. Delgado, and M. A. Salichs, “Multimodal human-robot interaction framework for a personal robot,” in *Robot and Human Interactive Communication, 2006. ROMAN 2006. The 15th IEEE International Symposium on.* IEEE, 2006, pp. 39–44.
- [57] M. A. V. J. Muthugala and A. G. B. P. Jayasekara, “Enhancing human-robot interaction by interpreting uncertain information in navigational commands based on experience and environment,” in *2016 IEEE International Conference on Robotics and Automation (ICRA).* IEEE, 2016, pp. 2915–2921.
- [58] P. H. D. A. S. Srimal, M. A. V. J. Muthugala, and A. G. B. P. Jayasekara, “Identifying spatial terminology and boundaries for human robot interaction: A human study,” in *Engineering Research Conference (MERCon), 2017 Moratuwa.* IEEE, 2017, pp. 46–51.
- [59] Y. Jiang, M. Lim, C. Zheng, and A. Saxena, “Learning to place new objects in a scene,” *The International Journal of Robotics Research*, vol. 31, no. 9, pp. 1021–1043, 2012.
- [60] G. Havur, G. Ozbilgin, E. Erdem, and V. Patoglu, “Geometric rearrangement of multiple movable objects on cluttered surfaces: A hybrid reasoning approach,” in *Robotics and Automation (ICRA), 2014 IEEE International Conference on.* IEEE, 2014, pp. 445–452.

- [61] S. Schiffer, A. Ferrein, and G. Lakemeyer, “Reasoning with qualitative positional information for domestic domains in the situation calculus,” *Journal of Intelligent & Robotic Systems*, vol. 66, no. 1-2, pp. 273–300, 2012.
- [62] A. G. B. P. Jayasekara, K. Watanabe, and K. Izumi, “Understanding user commands by evaluating fuzzy linguistic information based on visual attention,” *Artificial Life and Robotics*, vol. 14, no. 1, pp. 48–52, 2009.
- [63] J. Tan, Z. Ju, and H. Liu, “Grounding spatial relations in natural language by fuzzy representation for human-robot interaction,” in *Fuzzy Systems (FUZZ-IEEE), 2014 IEEE International Conference on.* IEEE, 2014, pp. 1743–1750.
- [64] P. H. D. A. S. Srimal and A. G. B. P. Jayasekara, “A multi-modal approach for enhancing object placement,” in *Technology and Management (NCTM), National Conference on.* IEEE, 2017, pp. 17–22.
- [65] M. V. J. Muthugala and A. B. P. Jayasekara, “MIRob: An intelligent service robot that learns from interactive discussions while handling uncertain information in user instructions,” in *Moratuwa Engineering Research Conference (MERCon), 2016.* IEEE, 2016, pp. 397–402.