

## CURRICULUM VITAE

# TIMOTHY BICKMORE

11/30/24

### OFFICE

Khoury College of Computer Sciences  
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### EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA  
Ph.D. in Media Arts & Sciences, February 2003

ARIZONA STATE UNIVERSITY, Tempe, AZ  
Master of Science in Computer Science, June 1986  
Bachelor of Science and Engineering in Computer Systems Engineering, June 1985  
*Summa Cum Laude*

### EMPLOYMENT HISTORY

NORTHEASTERN UNIVERSITY (2016-Present)  
Boston, MA  
Professor, Khoury College of Computer Sciences

NORTHEASTERN UNIVERSITY (2011-2016)  
Boston, MA  
Associate Professor, College of Computer and Information Science

NORTHEASTERN UNIVERSITY (2005-2011)  
Boston, MA  
Assistant Professor, College of Computer and Information Science

BOSTON UNIVERSITY SCHOOL OF MEDICINE (2003-2005)  
Boston, MA  
Assistant Professor of Medicine, General Internal Medicine

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### EMPLOYMENT HISTORY, continued

MIT MEDIA LABORATORY (1998-2003)

Cambridge, MA

Postdoctoral Research Assistant, Affective Computing Group (Rosalind Picard)

Research Assistant, Affective Computing Group (Advisor: Rosalind Picard)

Research Assistant, Gesture & Narrative Language Group (Advisor: Justine Cassell)

FUJI-XEROX PALO ALTO RESEARCH LAB (1995-1998)

Palo Alto, CA

Consulting Scientist

INTELLIGENT SOFTWARE ASSOCIATES (1994-1998)

Sacramento, CA

Principal

AEROJET PROPULSION SYSTEMS (1990-1994)

Sacramento, CA

Project Engineer

LOCKHEED ARTIFICIAL INTELLIGENCE CENTER (1986-1990)

Menlo Park, CA

Research Scientist

### SCHOLARSHIP / RESEARCH

Google Scholar (11/30/24): h-index=73

22,671 citations

#### A. Refereed Articles

##### A.1. Refereed Journal Articles

- A.1.1. Reilly ED, Kelly MM, Grigorian HL, Waring ME, Quigley KS, Hogan TP, Heapy AA, Drebing CE, Volonte M, Kathawalla UK, Robins HE, Bernice K, Bickmore T. Virtual Coach-Guided Online Acceptance and Commitment Therapy for Chronic Pain: Pilot Feasibility Randomized Controlled Trial. *JMIR Formative Research* Nov 8 2024;8:e56437. doi:10.2196/56437 PMID:PMC11584538
- A.1.2. Nkabane-Nkholongo E, Mokgatle M, Bickmore T, Julce C, Thompson D, B JA. Change in Sexual and Reproductive Health Knowledge among Young Women Using the Conversational Agent "Nthabi" in Lesotho: A Clinical Trial. *Research Square* Dec 28 2023; doi:10.21203/rs.3.rs-3788533/v1 PMID:PMC10793503
- A.1.3. Nkabane-Nkholongo E, Mokgatle M, Bickmore T, Julce C, Jack BW. Adaptation of the Gabby conversational agent system to improve the sexual and reproductive health of young women in Lesotho. *Frontiers of Digital Health*. 2023;5:1224429. doi:10.3389/fdgth.2023.1224429 PMID:PMC10584320
- A.1.4. Reilly, ED, Kathawalla, UK, Robins, HE, Heapy, AA, Hogan, TP, Waring, ME, Quigley, K, Drebing, C, Bickmore, T, Volonte, M, Kelly, M (2023) "An Online Acceptance and Mindfulness

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Intervention for Chronic Pain in Veterans: Development and Protocol for a Pilot Feasibility Randomized Controlled Trial" *JMIR Research Protocols* 12(1): e45887.

- A.1.5. Knapp, ST, Revette, A, Underhill-Blazey, M, Stopfer, JE, Ukaegbu, CI, Poulin, C, Parenteau, M, Syngal, S, Bae, E, Bickmore, T, Hampel, H, Idos, G, Parmigiani, G, Yurgelun, M, Braun, D (2023) "MyLynch: A Patient-Facing Clinical Decision Support Tool for Genetically-Guided Personalized Medicine in Lynch Syndrome" *Cancers* 15(2):391
- A.1.6. Althouse, AD, Abebe, KZ, Paasche-Orlow, M, Lalama, CM, Ferry, D, Lancet, M, Swabe, G, Bickmore, T, Magnani, J (2023) "Design, rationale, and baseline characteristics of a randomized controlled trial evaluating a mobile relational agent to enhance atrial fibrillation self-care" *Contemporary Clinical Trials* 124.
- A.1.7. Magnani, JW, Ferry, D, Swabe, G, Martin, D, Chen, X, Brooks, MM, Kimani, E, Paasche-Orlow, M, Olafsson, S, Bickmore, T, Khoudary, S (2022) "Design and rationale of the mobile health intervention for rural atrial fibrillation" *American heart journal* 252:16-25.
- A.1.8. O'Leary, TK, Stowell, E, Sackitey, D, Yun, HS, Wright, D, Paasche-Orlow, M, Bickmore, T, Parker, A (2022) "Church after sunday: Supporting everyday well-being through techno-spiritual health interventions" *Interactions* 29(4):90-93.
- A.1.9. Kocaballi, AB, Laranjo, L, Clark, L, Kocielnik, R, Moore, RJ, Liao, QV, Bickmore, T (2022) "Special issue on conversational agents for healthcare and wellbeing" *ACM Transactions on Interactive Intelligent Systems (TiIS)* 12(2):1-3.
- A.1.10. Gogoi, RP, Wallbillich, JJ, Winer, I, Morris, R, Ritchie, C, Larson, S, Walker, J, Bickmore, T, Spencer, E, Jang, H, Kim, S, Phalore, J, Bui, T (2022) "Computer-Animated Relational Agents in Human Papillomavirus Vaccination Education" *Obstetrics & Gynecology* 139(5):913-915.
- A.1.11. Parmar, D, Olafsson, S, Utami, D, Murali, P, Bickmore, T (2022) "Designing empathic virtual agents: manipulating animation, voice, rendering, and empathy to create persuasive agents" *Journal of Autonomous agents and multi-agent systems* 36(1):17
- A.1.12. Rubin, A, Livingston, NA, Brady, J, Hocking, E, Bickmore, T, Sawdy, M, Kressin, N, Saitz, R, Simon, S (2022) "Computerized relational agent to deliver alcohol brief intervention and referral to treatment in primary care: a randomized clinical trial" *Journal of general internal medicine* 37(1):70-77.
- A.1.13. Bickmore, TW, Ólafsson, S, O'Leary, TK (2021) "Mitigating patient and consumer safety risks when using conversational assistants for medical information: exploratory mixed methods experiment" *Journal of Medical Internet Research* 23(11):e30704.
- A.1.14. Spencer, E, Phalore, J, Bickmore, T, Kim, S, Jang, H, Gogoi, R (2021) "Relational agents in cervical cancer education: a pilot study to determine acceptability and impact of interactive education on vaccine advocacy" *International Journal of Gynecologic Cancer* 31 (Suppl 4).

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- A.1.15. Chinkam, S, Steer-Massaró, C, Herbey, I, Zhang, Z, Bickmore, T, Shorten, A (2021) "The perspectives of women and their health-care providers regarding using an ECA to support mode of birth decisions" *The Journal of Perinatal Education* 30(3):135-144.
- A.1.16. Kramer, J, Yinusa-Nyahkoon, L, Olafsson, S, Penti, B, Woodhams, E, Bickmore, T, Jack, B (2021) "Black men's experiences with health care: individuals' accounts of challenges, suggestions for change, and the potential utility of virtual agent technology to assist black men with health management" *Qualitative Health Research* 31(10):1772-1785.
- A.1.17. Walker, R, Drakeley, S, Bickmore, T, Jack, B, Boyle, J (2021) "Virtual patient advocates and promoting behaviour change during the preconception period" *International Journal Of Behavioral Medicine* 28(SUPPL 1):S41-S41.
- A.1.18. Bickmore, T, Kimani, E, Shamekhi, A, Murali, P, Parmar, D, Trinh, H (2021) "Virtual agents as supporting media for scientific presentations" *Journal on Multimodal User Interfaces* 15:131-146.
- A.1.19. Wang C, Paasche-Orlow M, Bowen D, H Cabral, MR Winter, Cunningham, T, Trevino-Talbot, M, Toledo, D, Cortes, D, Campion, M, Bickmore, T (2021) Utility of a virtual counselor (VICKY) to collect family health histories among vulnerable patient populations: A randomized controlled trial. *Patient Education & Counseling* 104 (5):979-988.
- A.1.20. Walker R, Drakeley S, Julce C, et al. "Assessing the potential of a Virtual Patient Advocate to provide preconception care and health advice to women living in Australia" *Journal of Developmental Origins of Health and Disease*. 2021;12(2):300-308.
- A.1.21. Kimani E, Shamekhi A, Bickmore T. "Just breathe: Towards real-time intervention for public speaking anxiety" *Smart Health*. 2021;19.
- A.1.22. King AC, Campero MI, Sheats JL, et al. Effects of Counseling by Peer Human Advisors vs Computers to Increase Walking in Underserved Populations: The COMPASS Randomized Clinical Trial. *JAMA Intern Med*. 2020. PMC7522781
- A.1.23. Jack B, Bickmore T, Yinusa-Nyahkoon L, Reichert, M, Julce, C, Sidduri, N, Martin-Howard, J, Zhang, Z, Woodhams, E, Fernandez, J, Loafman, M, Cabral, H "Improving the health of young African American women in the preconception period using health information technology: a randomised controlled trial" *The Lancet*, Digital Health. 2020;2(9):e475-e485. PMID: 33328115
- A.1.24. Bickmore T, Zhang Z, Reichert M, Julce C, Jack B. (2020) "Promotion of Preconception Care Among Adolescents and Young Adults by Conversational Agent" *J Adolesc Health*. 67(2s):S45-s51. PMID: 32718515
- A.1.25. Gunn C, Maschke A, Bickmore T, Kennedy, M, Hopkins, M, Fishman, M, Paasche-Orlow, M, Warner, E (2020) "Acceptability of an Interactive Computer-Animated Agent to Promote Patient-Provider Communication About Breast Density: a Mixed Method Pilot Study" *J General Internal Medicine* 35(4):1069-1077. PMC7174461

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- A.1.26. Guhl E, Althouse AD, Pusateri AM, Kimani, E, Paasche-Orlow, M, Bickmore, T, Magnani, J (2020) “The Atrial Fibrillation Health Literacy Information Technology Trial: Pilot Trial of a Mobile Health App for Atrial Fibrillation” *JMIR Cardio*. 4(1):e17162. PMC7501575
- A.1.27. Gardiner P, Bickmore T, Yinusa-Nyahkoon L, Reichert, M, Julce, C, Sidduri, N, Martin-Howard, Woodhams, E, Aryan, J, Zhang, Z, Fernandez, J, Loafman, M, Srinivasan, J, Cabral, H, Jack, B (2020) “Using Health Information Technology to Engage African American Women on Nutrition and Supplement Use During the Preconception Period” *Frontiers in Endocrinology* (Lausanne). 11:571705. PMC7874041
- A.1.28. Walter AW, Julce C, Sidduri N, Yinusa-Hyahkoon, L, Howard, J, Reichert, M, Bickmore, T, Jack, B “Study protocol for the implementation of the Gabby Preconception Care System - an evidence-based, health information technology intervention for Black and African American women” *BMC Health Services Research* 2020;20(1):889. PMC7504872
- A.1.29. Bickmore T, Kimani E, Shamehki A, Murali P, Parmar D, Trinh H. (2020) Virtual agents as supporting media for scientific presentations. *J. on Multimodal Interfaces*, 15:131-146.
- A.1.30. Cerda Diez M, D EC, Trevino-Talbot M, Banham, C, Winter, M, Cabral, H, Cunningham, T, Toledo, D, Bowen, D, Paasche-Orlow, M, Bickmore, T, Wang, C (2019) “Designing and Evaluating a Digital Family Health History Tool for Spanish Speakers” *Int J Environ Res Public Health* 16(24). PMC6950582
- A.1.31. Bickmore, TW, Trinh, H, Olafsson, S (2019) “Can the Use of Siri, Alexa, and Google Assistant for Medical Information Result in Patient Harm?” *JCOM* 26(1):10-13.
- A.1.32. Bickmore T, Trinh H, Olafsson S, O'Leary T, Asadi R, Rickles N, Cruz, R (2018) “Patient and Consumer Safety Risks When Using Conversational Assistants for Medical Information: An Observational Study of Siri, Alexa, and Google Assistant” *J Medical Internet Research*. 20(9).
- A.1.33. Sidner, C, Bickmore, T, Nooraie, B, Rich, C, Ring, L, Shayganfar, M, Vardoulakis, L (2018) “Creating New Technologies for Companionable Agents to Support Isolated Older Adults” *ACM Transactions on Interactive Intelligent Systems (TiiS)* 8(3)
- A.1.34. Sillice, M, Morokoff, P, Ferszt, G, Bickmore, T, Bock, B, Lantini, R, Velicer, W (2018) “Using Relational Agents to Promote Exercise and Sun Protection: Assessment of Participants’ Experiences With Two Interventions” *Journal of Medical Internet Research*, 20(2)
- A.1.35. Abdullah, A, Gaehde, S, and Bickmore, T (2018) “A Tablet-Based Embodied Conversational Agent to Promote Smoking Cessation Among Veterans: a Feasibility Study” *Journal of Epidemiology and Global Health*. 8(3-4):225-230.
- A.1.36. Magnani J, Schlusser C, Kimani E, Rollman B, Paasche-Orlow M, Bickmore T (2017) The Atrial Fibrillation Health Literacy Information Technology System: Pilot Assessment. *JMIR Cardio* 1(2).

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- A.1.37. Magnani, J, Guhl, E, Schlusser, C, Henault, L, Bickmore, T, Kimani, E, and Paasche-Orlow, M (2017) “Rationale and design of the Atrial Fibrillation health Literacy Information Technology Trial: (AF-LITT)” *Contemporary Clinical Trials* 62:153-158.
- A.1.38. Trinh, H, Asadi, R, Edge, D, Bickmore, T (2017) “RoboCOP: A Robotic Coach for Oral Presentations” *Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*.
- A.1.39. Zhang, Z., Bickmore, T, and Paasche-Orlow, M (2017) “Perceived Organizational Affiliation and Its Effects on Patient Trust: Role Modeling with Embodied Conversational Agents” *Patient Education and Counseling* 100(9):1730-1737.
- A.1.40. Gardiner, P, McCue, K, Negash, L, Cheng, T, White, L, Yinusa-Nyahkoon, Jack, B, Bickmore, T (2017) “Engaging Women with an Embodied Conversational Agent to Deliver Mindfulness and Lifestyle Recommendations: A Feasibility Randomized Control Trial” *Patient Education and Counseling* 100(9):1720-29.
- A.1.41. King, A, Campero, I, Sheats, J, Sweet, C, Garcia, D, Chazaro, A, Blanco, G, Fierros, F, Diaz, J, Done, M, Hauser, M, Ahn, D, Fernandez, J, Bickmore, T (2017) “Testing the Comparative Effects of Physical Activity Advice by Humans vs. Computers in Underserved Populations: the COMPASS Trial Design, Methods, and Baseline Characteristics” *Contemporary Clinical Trials* 61:115-25.
- A.1.42. Eneanya, N, Winter, M, Cabral, H, Waite, K, Henault, L, Bickmore, T, Hanchate, A, Wolf, M, and Paasche-Orlow, M (2016) “Health literacy as a mediator of racial disparities in patient activation within an elderly patient cohort” *Journal of Health Care for the Poor and Underserved*.
- A.1.43. Gwynn, K, Winter, M, Cabral, H, Wolf, M, Hanchate, A, Henault, L, Waite, K, Bickmore, T, Paasche-Orlow, M (2016) “Racial Disparities in Patient Activation: Evaluating the Mediating Role of Health Literacy with Path Analyses” *Patient Education and Counseling*.
- A.1.44.** Gupta, V, Winter, M, Cabral, H, Henault, L, Waite, K, Hanchate, A, Bickmore, T, Wolf, M, Paasche-Orlow, M (2016) “Disparities in Age-Associated Cognitive Decline Between African-American and Caucasian Populations: The Roles of Health Literacy and Education” *Journal of the American Geriatrics Society*.
- A.1.45. Bickmore, T, Utami, D, Matsuyama, R, and Paasche-Orlow, M (2016) “Improving Access to Online Health Information with Conversational Agents: A Randomized Controlled Experiment” *Journal of Medical Internet Research*.
- A.1.46. Cafaro, A, Viljalmsson, H, Bickmore, T (2016) “First Impressions in Human-Agent Virtual Encounters” *ACM Transactions on Computer-Human Interaction (ToCHI)*.
- A.1.47. Jack, B, Bickmore, T, Hempstead, M, Yinusa-Nyahkoon, L, Sadikova, E, Mitchell, S, Gardiner, P, Adigun, F, Penti, B, Schulman, D, Damus, K (2015) “Reducing Preconception Risks among African American Women with Conversational Agent Technology”, *Journal of the American Board of Family Medicine* 28(4):441-451.

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- A.1.48. Wang, C., Bickmore, T., Bowen, D., Norkunas, T., Campion, M., Cabral, H., Winter, M., Paasche-Orlow, M., (2015) “Acceptability and feasibility of a virtual counselor (VICKY) to collect family health histories”, *Genetics in Medicine*, 17:822-830.
- A.1.49. Manuvinakurike, R., Velicer, W., Bickmore, T. (2014) “Automated Indexing of Internet Stories for Health Behavior Change: Weight Loss Attitude Pilot Study”, *Journal of Medical Internet Research*, 16(12).
- A.1.50. Utami, D., Bickmore, T., Barry, B., Paasche-Orlow, M. (2014) “Health Literacy and Usability of Clinical Trial Search Engines” *Journal of Health Communication*, 19(Suppl 2):190-204.
- A.1.51. Ring, L., Shi, L., Totzke, K., Bickmore, T. (2014) “Social Support Agents for Older Adults: Longitudinal Affective Computing in the Home” *Journal on Multimodal User Interfaces*, June.
- A.1.52. Bickmore, T., Silliman, R., Nelson, K., Cheng, D., Winter, M., Henault, L., Paasche-Orlow, M. (2013) “A Randomized Controlled Trial of an Automated Exercise Coach for Older Adults” *Journal of the American Geriatrics Society*, 61:1676–1683.
- A.1.53. Edwards, R., Bickmore, T., Jenkins, L., Foley, M. (2013) “Use of an Interactive Computer Agent to Support Breastfeeding” *Maternal and Child Health Journal*, 17:1961-1968.
- A.1.54. Bickmore, T., Schulman, D., and Pfeifer, L. “Tinker – A Relational Agent Museum Guide” (2013) *Journal of Autonomous Agents and Multi-Agent Systems*, 27(2): 254-276.
- A.1.55. Ellis, T., Latham, N., DeAngelis, T., Thomas, C., Saint-Hilaire, M. and Bickmore, T. (2013) “Feasibility of a Virtual Exercise Coach to Promote Walking in Community-Dwelling Persons with Parkinson Disease” *American Journal of Physical Medicine and Rehabilitation*, 92(6) 472-485
- A.1.56. Bickmore, T., Schulman, D., and Sidner, C. (2013) “Automated Interventions for Multiple Health Behaviors using Conversational Agents” *Patient Education and Counseling*, 92 (2):142-148.
- A.1.57. Gardiner, P., Hempstead, M., Ring, L., Bickmore, T., Yinusa-Nyahkoon, L., Tran, H., Paasche-Orlow, M., Damus, K., Jack, B. (2013) “Reaching Women Through Health Information Technology: The Gabby Preconception Care System” *American Journal of Health Promotion*, Vol. 27, No. sp3 (January/February 2013) pp. eS11-eS20.
- A.1.58. King, A., Bickmore, T., Campero, M., Pruitt, L., Yin, L. (2013) “Employing 'Virtual Advisors' in Preventive Care for Underserved Communities: Results from the COMPASS Study” *Journal of Health Communication* 18(12): 1449-1464
- A.1.59. Sequeira, S., Eggermont, L., Silliman, R., Bickmore, T., Henault, L., Winter, M., Cheng, D., Nelson, K., Paasche-Orlow, M. (2013) “Limited Health Literacy and Decline in Executive Function in Older Adults” *Journal of Health Communication* 18(Suppl 1): 143–157
- A.1.60. Bickmore, T., and Paasche-Orlow, M. (2012) “The Role of Information Technology in Health Literacy Research” *Journal of Health Communication*, v. 17, Supplement 3, pp 23-29

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- A.1.61. Watson, A., Bickmore, T., Cange, A., Kulshreshtha, A., and Kvedar, J. (2012) “An Internet-Based Virtual Coach to Promote Physical Activity Adherence in Overweight Adults: Randomized Controlled Trial”, *Journal of Medical Internet Research*, 14(1)
- A.1.62. Bickmore, T, Schulman, D, Sidner, C (2011), “A Reusable Framework for Health Counseling Dialogue Systems based on a Behavioral Medicine Ontology”, *Journal of Biomedical Informatics* 44, 183-197
- A.1.63. Vinson, C, Bickmore, T, Farrell, D, Campbell, M, Saunders, E, Nowak, M, Fowler, B Shaikh, A (2011) “Adapting Research Tested Computerized Tailored Interventions for Implementation in Practice”, *Translational Behavioral Medicine: Practice, Policy, Research* 1(1), 93-102.
- A.1.64. Puskar, K, Schlenk, E, Callan, J, Bickmore, T, Sereika, S (2011) “Relational Agents as an Adjunct in Treating Schizophrenia: Case Studies” *Journal of Psychosocial Nursing and Mental Health Services* 49(8):22-29.
- A.1.65. Bickmore, T, Pfeifer, L., Byron, D, Forsythe, S, Henault, L, Jack, B, Silliman, R, Paasche-Orlow, M (2010) “A Health Information User Interface for Patients Irrespective of Health Literacy: Evidence of Usability from Two Clinical Trials Using Embodied Conversational Agents”, *Journal of Health Communication*, 15, 197-210.
- A.1.66. Bickmore, T, Fernando, R, Ring, L, Schulman, D (2010) “Empathic Touch by Relational Agents”, *IEEE Transactions on Affective Computing*, 1(1), 60-71.
- A.1.67. Bickmore, T, Schulman, D, Yin, L (2010) “Maintaining Engagement in Long-term Interventions with Relational Agents”, *International Journal of Applied Artificial Intelligence* special issue on Intelligent Virtual Agents, 24(6): 648-666.
- A.1.68. Bickmore, T, Gruber, A (2010). “Relational Agents in Clinical Psychiatry”, *Harvard Review of Psychiatry*, special issue on Psychiatry and Cyberspace, 18(2): 119-130.
- A.1.69. Bickmore, T, Mitchell, S, Jack, B, Paasche-Orlow, M, Pfeifer, L, ODonnell, J (2010) “Response to a Relational Agent by Hospital Patients with Depressive Symptoms”, *Interacting with Computers* special issue on Supportive Interaction: Computer Interventions for Mental Health, 22(4), 289-298.
- A.1.70. Bickmore, T, Puskar, K, Schlenk, E, Pfeifer, L, Sereika, S (2010) “Maintaining Reality: Relational Agents for Antipsychotic Medication Adherence”, *Interacting with Computers* special issue on Supportive Interaction: Computer Interventions for Mental Health, 22(4) 276-288.
- A.1.71. Mitchell, S, Bickmore, T, Paasche-Orlow, M, Williams, C, Forsythe, S, Atrash, H, Johnson, K, Jack, B (2010) “Increasing Access to Preconception Care Using Health Information Technology”, *Sociedad Iberoamericana de Informacion Cientifica (SIIC)* - IXOS CDC.

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- A.1.72. Bickmore, T., Pfeifer, L., and Paasche-Orlow, M. (2009) "Using Computer Agents to Explain Medical Documents to Patients with Low Health Literacy", *Patient Education and Counseling*, 75(3): 315-320.
- A.1.73. Bickmore, T, Mauer, D, and Brown, T (2009) "Context Awareness in a Handheld Exercise Agent", *Pervasive and Mobile Computing*, 5, 226-235.
- A.1.74. Bickmore, T., L. Pfeifer, and L. Yin, (2008) "The Role of Gesture in Document Explanation by Embodied Conversational Agents" *International Journal of Semantic Computing*, 2(1) 47-70.
- A.1.75. Jack, B, Atrash, H, Bickmore, T, Johnson, K (2008) "The Future of Preconception Care: A Clinical Perspective", *Women's Health Issues*. 18S, S19-S25
- A.1.76. Bickmore, T (2007) "Long-Term Interactions with Pedagogical Agents" *Educational Technology*, 47, 1, 47-50.
- A.1.77. Bickmore T, Giorgino T, Green N, Picard R (2006) "Guest Editorial: Special Issue on Dialog Systems for Health Communication" *J Biomedical Informatics* 39(5):465-467.
- A.1.78. Bickmore T, Giorgino T (2006) "Methodological Review: Health Dialog Systems for Patients and Consumers" *J Biomedical Informatics* 39(5): 556-571.
- A.1.79. Bickmore, T., Caruso, L., Clough-Gorr, K., and Heeren, T. (2005) "It's just like you talk to a friend' – Relational Agents for Older Adults" *Interacting with Computers* 17(6): 711-735.
- A.1.80. Bickmore, T., Gruber, A., and Picard R. (2005) "Establishing the Computer-Patient Working Alliance in Automated Health Behavior Change Interventions" *Patient Education and Counseling* 59(1): 21-30.
- A.1.81. Bickmore, T. and Picard, R. (2005) "Establishing and Maintaining Long-Term Human-Computer Relationships" *ACM Transactions on Computer Human Interaction (ToCHI)* 12(2): 293 – 327.
- A.1.82. Bickmore, T. (2004) "Unspoken Rules of Spoken Interaction" *Communications of the ACM* 47(4): 38-44.
- A.1.83. Cassell, J., Bickmore, T. (2003) "Negotiated Collusion: Modeling Social Language and its Relationship Effects in Intelligent Agents" *User Modeling and User Adaptive Interaction* 13(1): 89-132.
- A.1.84. Cassell, J. and Bickmore, T. (2001) "External Manifestations of Trustworthiness in the Interface", *Communications of the ACM* 43(12): 50-56.
- A.1.85. Cassell, J., Bickmore, T., Vilhjalmsson, H., Yan, H. (2001) "More Than Just a Pretty Face: Conversational Protocols and the Affordances of Embodiment." *Knowledge-Based Systems* 14: 55-64.

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- A.1.86. Bickmore, T. and Girgensohn, A. (1999) "Web Page Filtering and Re-Authoring for Mobile Users", *Computer Journal special issue on Mobile Computing* 42(6): 534-546.
- A.1.87. Bickmore, T. and Schilit, B. (1997) "Digester: Device-Independent Access to the World Wide Web", *Sixth International World Wide Web Conference*, Santa Clara, California, April (also published as *Computer Networks And ISDN Systems*, 29(8-13): 1075-1082).
- A.1.88. Bickmore, T. and Filman, R. (1997) "MultiLex, A Pipelined Lexical Analyzer." *Software Practice and Experience* 27(1): 25-32.
- A.1.89. Findler, N. and Bickmore, T. (1996) "On the concept of causality and a causal modeling system for scientific and engineering domains, CAMUS." *Applied Artificial Intelligence*, vol. 10, no. 5, pp. 455-487.
- A.1.90. Findler, N., Bickmore, T., Ihrig, L. and Tsang, W. (1991) "A note on the comparison of five heuristic optimization techniques of a certain class of decision trees." *Information Sciences*, vol. 53, no. 1-2, pp. 89-100.
- A.1.91. Vere, S. and Bickmore, T. (1990) "A Basic Agent." *Computational Intelligence* 6:41-60.
- A.1.92. Cook, L. and Bickmore, T. (1989) "Instructional Strategies for Teaching Knowledge Engineering." *Heuristics*, Vol. 2, No. 3, Fall, pp. 24-28.
- A.1.93. Findler, N., Crompton, R. and Bickmore, T. (1985) "A General-Purpose Man-Machine Environment with Special Reference to Air Traffic Control." *International Journal of Man-Machine Studies*, 23, pp.587-603.

## PUBLICATIONS

### A.2. Refereed Conference Articles

- A.2.1. Steenstra I, Nouraei F, Arjmand M, Bickmore T. Virtual agents for alcohol use counseling: exploring LLM-powered motivational interviewing. *ACM Conference on Intelligent Virtual Agents (IVA)*; 2024. **Best Paper Award**
- A.2.2. Fallah M, Nouraei F, Yun H, Bickmore T. Investigating User Perceptions of Collaborative Agenda Setting in Virtual Health Counseling Session. *ACM Conference on Intelligent Virtual Agents (IVA)*; 2024.
- A.2.3. Arjmand M, Nouraei F, Steenstra I, Bickmore T. Empathic Grounding: Explorations using Multimodal Interaction and Large Language Models with Conversational Agents. *ACM Conference on Intelligent Virtual Agents (IVA)*; 2024.
- A.2.4. Fallah M, Bickmore T, Olafsson S, Paasche-Orlow M, Mrkva A, Magnani J. Exploring the Potential of Virtual Agents in Atrial Fibrillation Management: Insights from a Randomized Trial. *ACM International Conference on Intelligent Virtual Agents (IVA)*; 2024.
- A.2.5. Yun H, Arjmand M, Sherlock P, Paasche-Orlow M, Griffith J, Bickmore T. Keeping Users Engaged During Repeated Interviews by a Virtual Agent: Using Large Language Models to Reliably Diversify Questions. *ACM International Conference on Intelligent Virtual Agents (IVA)*; 2024.

## BICKMORE - CURRICULUM VITAE

- A.2.6. Murali P, Yamane N, Hernandez J, Marsella S, Goodwin M, Bickmore T. Feeling-the-Beat: Enhancing Empathy and Engagement during Public Speaking through Heart Rate Sharing. *International Conference on Affective Computing and Intelligent Interaction (ACII)*; 2024.
- A.2.7. O'Leary T, Paasche-Orlow M, Bickmore T. 'Something I Can Lean On': A Qualitative Evaluation of a Virtual Palliative Care Counselor for Patients with Life-Limiting Illnesses. *ACM Conference on Human Factors in Computing Systems (CHI)*; 2024.
- A.2.8. Steenstra I, Murali P, Perkins R, Joseph N, Paasche-Orlow M, Bickmore T. Engaging and Entertaining Adolescents in Health Education Using LLM-Generated Fantasy Narrative Games and Virtual Agents. *ACM Conference on Human Factors in Computing (CHI)*; 2024.
- A.2.9. Hurstak, E, O'Leary, T, Olafsson, S, Paasche-Orlow, M, Cabral, H, Bickmore, T (2023) "Conversational Assessment of Mild Cognitive Impairment with Virtual Agents" *Proceedings of the ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.10. Steenstra, I, Murali, P, Perkins, R, Joseph, N, Paasche-Orlow, M, Bickmore, T (2023) "Changing Parent Attitudes by Including Adolescents in Multiparty Counseling by Virtual Agent" *Proceedings of the ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.11. Olafsson, S, Pedrelli, P, Wallace, B, Bickmore, T (2023) "Accommodating User Expressivity while Maintaining Safety for a Virtual Alcohol Misuse Counselor" *Proceedings of the ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.12. Terzioglu, Y, Rebello, K, Bickmore, T (2023) "Influencing Health-Related Decision Making and Therapeutic Alliance with Robot Mobility and Deixis" *IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*.
- A.2.13. Murali, P, Steenstra, I, Yun, HS, Shamekhi, A, Bickmore, T (2023) "Improving multiparty interactions with a robot using large language models" *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing (CHI)*.
- A.2.14. Sackitey, D, O'Leary, TK, Paasche-Orlow, M, Bickmore, T, Parker, AG (2023) "Everyone is Covered": Exploring the Role of Online Interactions in Facilitating Connection and Social Support in Black Churches" *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI)*.
- A.2.15. Murali, P, Bickmore, T (2023) "Sharing Speaker Heart Rate with the Audience Elicits Empathy and Increases Persuasion" *International Conference on Persuasive Technology*.
- A.2.16. Reilly, ED, Volonte, M, Bickmore, T (2023) "An Online Therapeutic Intervention for Veterans Patients Suffering with Chronic Pain" *IEEE Conference on Virtual Reality and 3D User Interfaces*.

## BICKMORE - CURRICULUM VITAE

- A.2.17. Kimani, E, Bickmore, T, Picard, R, Goodwin, M, Jimison, H (2022) "Real-time public speaking anxiety prediction model for oral presentations" *Companion Publication of the 2022 International Conference on Multimodal Interaction (ICMI)*.
- A.2.18. Yun, HS, Volonte, M, Bickmore, T (2022) "Motivating health behavior change with a storytelling virtual agent" *Proceedings of the 22nd ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.19. Murali, P, Nouraei, F, Fallah, M, Kearns, A, Rebello, K, O'Leary, T, Perkins, R, Joseph, N, Dedier, J, Paasche-Orlow, M, Bickmore, T (2022) "Training lay counselors with virtual agents to promote vaccination" *Proceedings of the 22nd ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.20. Zhou, S, Bickmore, T (2022) "A virtual counselor for breast cancer genetic counseling: Adaptive pedagogy leads to greater knowledge gain" *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI)*.
- A.2.21. O'Leary, TK, Parmar, D, Olafsson, S, Paasche-Orlow, M, Bickmore, T, Parker, A (2022) "Community dynamics in technospiritual interventions: lessons learned from a church-based mHealth pilot" *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI)*.
- A.2.22. Terzioğlu, Y, Murali, P, Kimani, E, T Bickmore (2022) "Sharing the Spotlight: Co-presenting with a Humanoid Robot" *2022 17th ACM/IEEE International Conference on Human-Robot Interaction (HRI)*.
- A.2.23. Yun, HS, Zhou, S, Kimani, E, Olafsson, S, O'Leary, T, Parmar, D, Hoffman, J, Intille, S, Paasche-Orlow, M, Bickmore, T (2022) "Techno-spiritual Engagement: Mechanisms for Improving Uptake of mHealth Apps Designed for Church Members" *HEALTHI: The Second IUI Workshop on Intelligent Healthy User Interfaces*.
- A.2.24. Murali, P, Trinh, H, Ring, L, Bickmore, T (2021) "A friendly face in the crowd: Reducing public speaking anxiety with an emotional support agent in the audience" *Proceedings of the 21st ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.25. Zhou, S, Bickmore, T (2021) "Automating Cancer Genetic Counseling with an Adaptive Pedagogical Agent" *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing (CHI)*.
- A.2.26. Olafsson, S, Parmar, D, Kimani, E, O'Leary, TK, Bickmore, T (2021) "'More like a person than reading text in a machine': Characterizing User Choice of Embodied Agents vs. Conventional GUIs on Smartphones" *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing (CHI)*.
- A.2.27. Kimani, E, Parmar, D, Murali, P, Bickmore, T (2021) "Sharing the load online: Virtual presentations with virtual co-presenter agents" *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing (CHI)*.

## BICKMORE - CURRICULUM VITAE

- A.2.28. O'Leary, TK, Stowell, E, Hoffman, JA, Paasche-Orlow, M, Bickmore, T, Parker, A (2021) "Examining the intersections of race, religion & community technologies: A photovoice study" *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI)*.
- A.2.29. Bickmore, T, Murali, P, Terzioglu, Y, Zhou, S (2021) "Perceptions of Quantitative and Affective Meaning from Humanoid Robot Hand Gestures" *13th International Conference on Social Robotics, (ICSR)*.
- A.2.30. Bickmore T, Rubin A, Simon S (2021) "Substance Use Screening using Virtual Agents: Towards Automated Screening, Brief Intervention, and Referral to Treatment (SBIRT)" *ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.31. O'Leary T, Stowell E, Kimani E, Parmar, D, Olafsson, S, Hoffman, J, Parker, A, Paasche-Orlow, M, Bickmore, T (2020) "Community-Based Cultural Tailoring of Virtual Agents" *ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.32. Stowell, E, O'Leary, T, Kimani, E, Paasche-Orlow, M, Bickmore, T, Parker, A (2020) "Investigating Opportunities for Crowdsourcing in Church-Based Health Interventions: A Participatory Design Study" *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)* **Honourable Mention.**
- A.2.33. Zhou, S, Murali, P, Underhill-Blazey, M, Bickmore, T (2020) "Cancer Genetic Counseling by Humanoid Robot: Modeling Multimodal Communication of Health Risk" *Conference on Human-Robot Interaction (HRI)*. **Best Short Paper Award.**
- A.2.34. Olafsson S, O'Leary T, Bickmore T. (2020) Motivating Health Behavior Change with Humorous Virtual Agents. *Intelligent Virtual Agents (IVA)*.
- A.2.35. Murali, P, Shamekhi, A, Parmar, D, Bickmore, T (2020) "Argumentation is More Important than Appearance for Designing Culturally Tailored Virtual Agents" *Autonomous Agents and Multiagent Systems (AAMAS)*.
- A.2.36. Parmar, D, Olafsson, S, Utami, D, Murali, P, Bickmore, T (2020) "Navigating the Combinatorics of Virtual Agent Design Space to Maximize Persuasion" *Autonomous Agents and Multiagent Systems (AAMAS)*.
- A.2.37. Olafsson, S, Wallace, B, Bickmore, T (2020) "Towards a Computational Framework for Automating Substance Use Counseling with Virtual Agents" *Autonomous Agents and Multiagent Systems (AAMAS)*.
- A.2.38. Kimani E, Murali P, Shamehki A, Parmar D, Munikoti S, Bickmore T. (2020) "Multimodal Assessment of Oral Presentations using HMMs" *International Conference on Multimodal Interaction (ICMI)*.
- A.2.39. Utami D, Bickmore T. (2019) "Collaborative User Responses in Multiparty Interaction with a Couples Counselor Robot" *ACM/IEEE International Conference on Human Robot Interaction (HRI)*.

## BICKMORE - CURRICULUM VITAE

- A.2.40. Kimani, E, Shamekhi, A, Murali, P, Parmar, D, Bickmore, T (2019) "Stagecraft for scientists: exploring novel interaction formats for virtual co-presenter agents" *Proceedings of the 19th ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.41. Shamekhi, A, Bickmore, T (2019) "A multimodal robot-driven meeting facilitation system for group decision-making sessions" *International conference on multimodal interaction (ICMI)*.
- A.2.42. Murali, P, O'Leary, T, Shamekhi, A, Bickmore, T (2019) "Health counseling by robots: Modalities for breastfeeding promotion" *IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*.
- A.2.43. Kimani, E, Bickmore, T, Trinh, H, Pedrelli, P (2019) "You'll be great: Virtual agent-based cognitive restructuring to reduce public speaking anxiety" *International conference on affective computing and intelligent Interaction (ACII)*.
- A.2.44. Kimani, E, Bickmore, T (2019) "Addressing public speaking anxiety in real-time using a virtual public speaking coach and physiological sensors" *Proceedings of the 19th ACM International Conference on Intelligent Virtual Agents (IVA)*.
- A.2.45. Olafsson, S, O'Leary, T, Bickmore, T (2019) "Coerced change-talk with conversational agents promotes confidence in behavior change" *Proceedings of the 13th EAI International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health)*.
- A.2.46. Shamekhi A, Bickmore T. (2018) Breathe Deep: A Breath-Sensitive Interactive Meditation Coach. *International Conference on Pervasive Computing Technologies for Healthcare*, New York.
- A.2.47. Asadi R, Trinh A, Fell H, Bickmore T (2018) "Quester: A Speech-based Question-Answering Support System for Oral Presentations" *International Conference on Intelligent User Interfaces (IUI)*
- A.2.48. Sawdy, M., Yeksigian, C., Zhou, S., Bickmore, T., Simon, S., Rubin, A. (2018) "Relational Agent to Provide Alcohol Brief Intervention and Referral to Treatment in Primary Care: Design and Preliminary Results" *Society for Behavioral Medicine (SBM) annual meeting*
- A.2.49. Waite, K, Henault, L, Armstrong, L, Jones, S, Zang, Z, Utami, D, Shamekhi, A, Olafsson, S, Bickmore, T, and Paasche-Orlow, M (2018) "Embodied conversational agents for patients with advanced illnesses intervention description and trial design" *Society for General Internal Medicine Annual Conference*
- A.2.50. Trinh, H, Shamekhi, A, Kimani, E, and Bickmore, T (2018) "Predicting User Engagement in Longitudinal Interventions with Virtual Agents" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.51. Murali, p, Ring, L, Trinh, H, Asadi, R, and Bickmore, T (2018) "Speaker Hand-Offs in Collaborative Human-Agent Oral Presentations" *International Conference on Intelligent Virtual Agents (IVA)*

## BICKMORE - CURRICULUM VITAE

- A.2.52. Bickmore, T, Kimani, E, Trinh, H, Pusateri, A, Paasche-Orlow, M, and Magnani, J (2018) "Managing Chronic Conditions with a Smartphone-based Conversational Virtual Agent" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.53. Zhang, Z, and Bickmore, T (2018) "Medical Shared Decision Making with a Virtual Agent" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.54. Parmar, D, Olafsson, S, Utami, D and Bickmore, T (2018) "Looking the Part: The Effect of Attire and Setting on Perceptions of a Virtual Health Counselor" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.55. Zhou, S, Bickmore, T, Rubin, A, Yeksigian, C, Sawdy, M and Simon, S (2018) "User Gaze Behavior while Discussing Substance Use with a Virtual Agent" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.56. Zhang, Z, and Bickmore, T (2018) "A Conversational Decision Aid to Support Shared Decision Making on Prenatal Testing" *Annual North American Meeting of the Society for Medical Decision Making (SMDM)*
- A.2.57. Utami, D, Bickmore, T, Kruger, L (2017) "A Robotic Couples Counselor for Promoting Positive Communication" *IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*
- A.2.58. Shamekhi, A. and Bickmore, T. (2017) "Augmenting Group Medical Visits with Conversational Agents for Stress Management Behavior Change" *Persuasive Technology Conference*
- A.2.59. Olafsson, S., Kimani, E., Asadi, R., and Bickmore, T (2017) "That's a Rap: Increasing Engagement with Rap Music Performance by Virtual Agents" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.60. Utami, D., Bickmore, T., Nikolopoulou, A., and Paasche-Orlow, M. (2017) "Talk About Death: End of Life Planning with a Virtual Agent" *International Conference on Intelligent Virtual Agents (IVA)*
- A.2.61. Zhou, S, Zhang, Z, Bickmore, T (2017) "Adapting a Persuasive Conversational Agent for the Chinese Culture" *International Conference on Culture and Computing*.
- A.2.62. Wang, C, Bickmore, T, Paasche-Orlow, M, Cunningham, T, Cabral, H, Winter, M, Campion, M, Bowen, D (2017) "Usability of family health history tools among underserved patients" *American Society of Human Genetics Annual Meeting*
- A.2.63. Asadi R, Trinh H, Bickmore T (2017) "IntelliPrompter: Speech-based Dynamic Note Display Interface for Oral Presentations" *International Conference on Multimodal Interaction (ICMI)*.
- A.2.64. Trinh, H, Asadi, R, Edge, D, Bickmore, T (2017) "RoboCOP: A Robotic Coach for Oral Presentations" *Proceedings of ACM Conference on Pervasive and Ubiquitous Computing (Ubicomp)*.

## BICKMORE - CURRICULUM VITAE

- A.2.65. Asadi, R., Fell, H., Bickmore, T., Trinh, H. (2016) “Real-time Presentation Tracking Using Semantic Keyword Spotting” *Interspeech*.
- A.2.66. Kimani, K., Bickmore, T., Trinh, H., Ring, L., Paasche-Orlow, M., Magnani, J. (2016) “A Smartphone-based Virtual Agent for Atrial Fibrillation Education and Counseling” *Intelligent Virtual Agents (IVA)*.
- A.2.67. Ring, L., Utami, D., Olafsson, S., Bickmore, T. (2016) Increasing Engagement with Virtual Agents Using Automatic Camera Motion *Intelligent Virtual Agents (IVA)*.
- A.2.68. Bickmore, T., Trinh, H., Hoppmann, M., Asadi, R. (2016) Virtual Agents in the Classroom: Experience Fielding a Co-Presenter Agent in University Courses *Intelligent Virtual Agents (IVA)*.
- A.2.69. Trinh, H., Bickmore, T., Edge, D., Ring, L. (2016) Thinking Outside the Box: Co-Planning Scientific Presentations with Virtual Agents *Intelligent Virtual Agents (IVA)*.
- A.2.70. Trinh, H., Ring, L., Bickmore, T. (2015) “DynamicDuo: Co-presenting with Virtual Agents” *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*
- A.2.71. Zhou, S., Bickmore, T., Jack, B. (2014) “Agent-User Concordance and Satisfaction with a Virtual Hospital Discharge Nurse” *Intelligent Virtual Agents conference (IVA)*, Boston. **Best paper award runner-up.**
- A.2.72. Ring, L., Utami, D., Bickmore, T. (2014) “The Right Agent for the Job? The effects of agent visual appearance on task domain” *Intelligent Virtual Agents conference (IVA)*, Boston.
- A.2.73. Ren, J., Bickmore, T., Hempstead, M., Jack, B. (2014) “Birth Control, Drug Abuse, or Domestic Violence? What health risk topics are women willing to discuss with a virtual agent?” *Intelligent Virtual Agents conference (IVA)*, Boston.
- A.2.74. Zhang, Z., Bickmore, T., Mainello, K., Mueller, M., Foley, M., Jenkins, L., Edwards, R. (2014) “Maintaining Continuity in Longitudinal, Multi-Method Health Interventions Using Virtual Agents: The Case of Breastfeeding Promotion” *Intelligent Virtual Agents conference (IVA)*, Boston.
- A.2.75. Cafaro, A., Vilhjalmsson, H., Bickmore, T., Heylen, D., Pelachaud, C. (2014) “Representing Communicative Functions in SAIBA with a Unified Function Markup Language” *Intelligent Virtual Agents conference (IVA)*, Boston.
- A.2.76. Yin, L., Bickmore, T., Montfort, N. (2014) “An Interactive Narrative System for Narrative-Based Games for Health” *Seventh workshop on Intelligent Narrative Technologies (int7)*
- A.2.77. Zhou, S., Gali, R., Paasche-Orlow, M., Bickmore, T. (2014) “Afraid to Ask: Proactive Assistance with Healthcare Documents Using Eye Tracking” *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) Extended Abstracts / Work-in-Progress*

## BICKMORE - CURRICULUM VITAE

- A.2.78. Ren, J., Schulman, D., Jack, B., Bickmore, T. (2014) “Supporting Longitudinal Change in Many Health Behaviors” *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) Extended Abstracts / Work-in-Progress*
- A.2.79. Zhang, Z., Bickmore, T., Silliman, R., Paasche-Orlow, M. (2013) “Who Responds Best to a Virtual Exercise Coach? Demographics and Patterns of Use as Predictors of Outcome” *Workshop on Interactive Systems in Healthcare (WISH)*
- A.2.80. Ring, L., Barry, B., Totzke, K., Bickmore, T. (2013) “Addressing Loneliness and Isolation in Older Adults: Proactive Affective Agents Provide Better Support” *International Conference on Affective Computing and Intelligent Interaction (ACII)*
- A.2.81. Manuvinakurike, R., Barry, B., and Bickmore, T. (2013) “Indexing Stories for Conversational Health Interventions” *AAAI Spring Symposium on Data Driven Wellness: From Self-Tracking to Behavior Change*
- A.2.82. Cafaro, A., Vilhjalmsson, H., Bickmore, T., Heylen, D., Schulman, D. (2013) “First impressions in user-agent encounters: the impact of an agent's nonverbal behavior on users' relational decisions” *Conference on Autonomous Agents and Multiagent Systems (AAMAS)*
- A.2.83. Bickmore, T., Vardoulakis, L., Jack, B., Paasche-Orlow, M. (2013) “Automated Promotion of Technology Acceptance by Clinicians Using Relational Agents” *Intelligent Virtual Agents conference (IVA)*, Edinburgh.
- A.2.84. Utami, D., Barry, B., Bickmore, T., Paasche-Orlow, M. (2013) “A Conversational Agent-based Clinical Trial Search Engine” *7th annual Symposium on Human-Computer Interaction and Information Retrieval (HCIR)*
- A.2.85. Schulman, D. And Bickmore, T. (2012) “Changes in Verbal and Nonverbal Conversational Behavior in Long-Term Interaction” *International Conference on Multimodal Interaction (ICMI)*
- A.2.86. Bickmore, T., Schulman, D. (2012) “Empirical Validation of an Accommodation Theory-based Model of User-Agent Relationship” *Intelligent Virtual Agents conference (IVA)*, Santa Cruz, CA.
- A.2.87. Bickmore, T., Bukhari, L., Vardoulakis, L., Paasche-Orlow, M., and Shanahan, C. (2012) “Hospital Buddy: A Persistent Emotional Support Companion Agent for Hospital Patients” *Intelligent Virtual Agents conference (IVA)*, Santa Cruz, CA.
- A.2.88. Vardoulakis, L., Ring, L., Barry, B., Sidner, C., and Bickmore, T. (2012) “Designing Relational Agents as Long Term Social Companions for Older Adults” *Intelligent Virtual Agents conference (IVA)*, Santa Cruz, CA.
- A.2.89. Ring, L., Bickmore, T., and Schulman, D. (2012) “Longitudinal Affective Computing: Virtual Agents that Respond to User Mood” *Intelligent Virtual Agents conference (IVA)*, Santa Cruz, CA.

## BICKMORE - CURRICULUM VITAE

- A.2.90. Kuyten, P., Bickmore, T., Stoyanchev, S., Piwek, P., Prendinger, H. and Ishizuka, M. (2012) “Fully Automated Generation of Question-Answer Pairs for Scripted Virtual Instruction” *Intelligent Virtual Agents conference (IVA)*, Santa Cruz, CA.
- A.2.91. Cafaro, A., Vilhjálmsson, H., Bickmore, T., Heylen, D., Jóhannsdóttir, K., and Valgarðsson (2012) “First Impressions: users' judgments of Virtual Agents' Personality and Interpersonal Attitude in First Encounters” *Intelligent Virtual Agents conference (IVA)*, Santa Cruz, CA.
- A.2.92. Yin, L., Ring, L, Bickmore, T. (2012) “Using an Interactive Visual Novel to Promote Patient Empowerment through Engagement” *Foundations of Digital Games (FDG)*
- A.2.93. Pfeifer, L. and Bickmore, T. (2011) “Longitudinal Remote Follow-Up by Intelligent Conversational Agents for Post-Hospitalization Care” *AAAI Spring Symposium on AI and Health Communication*, Stanford.
- A.2.94. Schulman, D., Bickmore, T., and Sidner, C. (2011) “An Intelligent Conversational Agent for Promoting Long-term Health Behavior Change using Motivational Interviewing” *AAAI Spring Symposium on AI and Health Communication*, Stanford.
- A.2.95. Pfeifer, L. and Bickmore, T. (2011) “Is the Media Equation a Flash in the Pan? The Durability and Longevity of Social Responses to Computers” *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*
- A.2.96. Schulman, D., Bickmore, T., (2011) “Posture, Relationship, and Discourse Structure” *Intelligent Virtual Agents conference (IVA)*, Reykjavik, Iceland
- A.2.97. Bickmore, T., Pfeifer, L., Schulman, D. (2011) “Relational Agents Improve Engagement and Learning in Science Museum Visitors” *Intelligent Virtual Agents conference (IVA)*, Reykjavik, Iceland
- A.2.98. Yin, L, Bickmore, T, Cortes, D (2010) “The Impact of Linguistic and Cultural Congruity on Persuasion by Conversational Agents”, *Intelligent Virtual Agents conference (IVA)*.
- A.2.99. Schulman, D, Bickmore, T (2010) “Modeling Behavioral Manifestations of Coordination and Rapport over Multiple Conversations: Speaking Rate as a Relational Indicator for a Virtual Agent”, *Intelligent Virtual Agents conference (IVA)*.
- A.2.100. Bickmore, T, Ring, L (2010) “Making It Personal: End-User Authoring of Health Narratives Delivered by Virtual Agents”, *Intelligent Virtual Agents conference (IVA)*.
- A.2.101. Yin, L., Bickmore, T., Byron, D., and Cortes, D. (2010) “Cultural and Linguistic Adaptation of Relational Agents for Health Counseling”, *Workshop on Interactive Systems in Healthcare (WISH)*, Atlanta, GA.
- A.2.102. Bickmore, T., Schulman, D. and Shaw, G. (2009) “DTask & LiteBody: Open Source, Standards-based Tools for Building Web-deployed Embodied Conversational Agents”, *Proceedings of Intelligent Virtual Agents (IVA)*, Amsterdam.

## BICKMORE - CURRICULUM VITAE

- A.2.103. Pfeifer, L. and Bickmore, T. (2009) “Should Agents Speak Like, um, Humans? The Use of Conversational Fillers by Virtual Agents”, Proceedings of *Intelligent Virtual Agents (IVA)* conference, Amsterdam.
- A.2.104. Bickmore, T., Fernando, R., (2009) “Towards Empathic Touch by Relational Agents”, *AAMAS Workshop on Empathic Agents*, Budapest.
- A.2.105. Bickmore, T, Schulman, D, Yin, L (2009) “Engagement vs. Deceit: Virtual Humans with Human Autobiographies”, Proceedings of *Intelligent Virtual Agents (IVA)* conference, Amsterdam, **Best Paper Award**.
- A.2.106. Bickmore, T. and Schulman, D. (2009) “A Virtual Laboratory for Studying Long-term Relationships between Humans and Virtual Agents”, Proceedings of *Autonomous Agents and Multi-Agent Systems (AAMAS)* conference, Budapest, Hungary.
- A.2.107. Schulman, D. and Bickmore, T. (2009) “Persuading Users through Counseling Dialogue with a Conversational Agent”, *Persuasive Technology* conference, Claremont, CA.
- A.2.108. Bickmore, T, Pfeifer, L, Jack, B, (2009) “Taking the Time to Care: Empowering Low Health Literacy Hospital Patients with Virtual Nurse Agents”, Proceedings of the *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, Boston.
- A.2.109. Bickmore, T, Pfeifer, L, Schulman, D, Perera, S, Senanayake, C, and Nazmi, I (2008) “Public Displays of Affect: Deploying Relational Agents in Public Spaces” *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, Florence, Italy .
- A.2.110. Bickmore, T, Pfeifer, L (2008) “Relational Agents for Antipsychotic Medication Adherence” *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) workshop on “Technology for Mental Health”*, Florence, Italy .
- A.2.111. Bickmore, T, Mauer, D, Crespo, F and Brown, T (2008) “Negotiating Task Interruptions with Relational Agents for Health Behavior Change”, *Autonomous Agents and Multi-Agent Systems (AAMAS)*, Estoril, Portugal .
- A.2.112. Schulman, D, Sharma, M and Bickmore, T (2008) “The Identification of Users by Relational Agents”, *Autonomous Agents and Multi-Agent Systems (AAMAS)*, Estoril, Portugal .
- A.2.113. Bickmore, T (2008) “Framing and Interpersonal Stance in Relational Agents”, *Autonomous Agents and Multi-Agent Systems (AAMAS) workshop on “Why Conversational Agents do what they do: Functional Representations for Generating Conversational Agent Behavior”*, Estoril, Portugal .
- A.2.114. Schulman, D and Bickmore, T (2007) “Comforting Agents”, *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI) workshop on “Supple Interfaces”*, San Jose, CA .
- A.2.115. Bickmore, T (2007) “What Would Jiminy Cricket do? Lessons from the First Social Wearable”, *HCI International*, Beijing, China .

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- A.2.116. Bickmore, T, Mauer, D and Brown, T (2007) "Persuasion, Task Interruption, and Health Regimen Adherence", *Persuasive Technology*, Stanford, CA .
- A.2.117. Bickmore, T and Schulman, D (2007) "Practical Approaches to Comforting Users with Relational Agents" *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, San Jose, CA .
- A.2.118. Bickmore, T, Mauer, D and Brown, T (2007) "Context Awareness in Mobile Relational Agents", *Intelligent Virtual Agents (IVA)*, Paris, France .
- A.2.119. Bickmore, T, Pfeifer, L and Paasche-Orlow, M (2007) "Health Document Explanation by Virtual Agents", *Intelligent Virtual Agents (IVA)*, Paris, France .
- A.2.120. Bickmore, T. and Sidner, C. L. (2006) "Towards Plan-based Health Behavior Change Counseling Systems" *AAAI Spring Symposium on Argumentation for Consumers of Healthcare*, Stanford, CA .
- A.2.121. Bickmore T, Mauer D. (2006) "Modalities for Building Relationships with Handheld Computer Agents" *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, Montreal .
- A.2.122. Bickmore T, Schulman D. (2006) "The Comforting Presence of Relational Agents" *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, Montreal.
- A.2.123. Bickmore T, Sidner CL. (2006) "Towards Plan-based Health Behavior Change Counseling Systems" *AAAI Spring Symposium on Argumentation for Consumers of Healthcare*, Stanford, CA .
- A.2.124. Schlenk E, Puskar K, Sereika S, Bickmore, T (2006) "Forging partnerships to develop and test relational agent technology to improve medication adherence in schizophrenia" *Eastern Nursing Research Society Annual Scientific Sessions*, Cherry Hill, NJ .
- A.2.125. Bickmore, T., Caruso, L., and Clough-Gorr, K. (2005) "Acceptance and Usability of a Relational Agent Interface by Urban Older Adults" *Proceedings of of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, Portland, OR .
- A.2.126. Bickmore, T. (2005) "Ethical Issues in Using Relational Agents for Older Adults" *AAAI Fall Symposium on Caring Machines: AI in Eldercare* Washington, DC .
- A.2.127. Bickmore, T. and Picard, R. (2004) "Towards Caring Machines" *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI)*, Vienna, Austria.
- A.2.128. Bickmore, T. (2004) "What do you Expect? Towards a Model of Human-Computer Relationships," *Vienna Workshop on Dimensions of Sociality: Shaping Relationships with Machines*, November 19-20, Vienna, Austria .
- A.2.129. Bickmore T. and Giorgino, T. (2004) "Some Novel Aspects of Health Communication from a Dialogue Systems Perspective," *Proceedings of the AAAI Fall Symposium on Dialogue Systems for Health Communication*, October, 2004, Washington, DC .

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- A.2.130. Bickmore, T. and Picard, R. (2003). "Subtle Expressivity by Relational Agents." *Proceedings of the CHI 2003 Workshop on Subtle Expressivity for Characters and Robots*. April 7<sup>th</sup>, Fort Lauderdale, FL.
- A.2.131. Bickmore, T. and Cassell, J. (2002) "Phone vs. Face-to-Face with Virtual Persons." *Proceedings of the International CLASS Workshop on Natural, Intelligent and Effective Interaction in Multimodal Dialogue Systems*. June 28-29, Copenhagen, Denmark .
- A.2.132. Bickmore, T. (2002) "Social Dialogue is Serious Business." *Proceedings of the CHI 2002 Workshop on Socially Adept Technologies*, April 21, Minneapolis, MN .
- A.2.133. Bickmore, T. (2002). "Towards the Design of Multimodal Interfaces for Handheld Conversational Characters." *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, pp. 788-789. April 20-25, Minneapolis, MN .
- A.2.134. Cassell, J., Stocky, T., Bickmore, T., Gao, Y., Nakano, Y., Ryokai, K., Tversky, D., Vaucelle, C., Vilhjálmsón, H. (2002). "MACK: Media lab Autonomous Conversational Kiosk." *Proceedings of Imagina02*. February 12-15, Monte Carlo .
- A.2.135. Cassell, J., Nakano, Y., Bickmore, T., Sidner, C., Rich, C. (2001). "Non-Verbal Cues for Discourse Structure." *Proceedings of the 41st Annual Meeting of the Association for Computational Linguistics (ACL)*, pp. 106-115. July 17-19, Toulouse, France .
- A.2.136. Cassell, J., Vilhjálmsón, H., Bickmore, T. (2001) "BEAT: the Behavior Expression Animation Toolkit." *Proceedings of SIGGRAPH '01*, pp. 477-486. August 12-17, Los Angeles, CA
- A.2.137. Bickmore, T. and Cassell, J. (2001) "Relational Agents: A Model and Implementation of Building User Trust". *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, pp. 396-403. March 31-April 5, Seattle, Washington .
- A.2.138. Cassell, J., Bickmore, T., Vilhjálmsón, H., and Yan, H. (2000) "More Than Just a Pretty Face: Affordances of Embodiment" in *Proceedings of the Conference on Intelligent User Interfaces (IUI)*, pp. 52-59. January 4-9, New Orleans, LA .
- A.2.139. Bickmore, T. and Cassell, J. (2000) "How about this weather? Social Dialogue with Embodied Conversational Agents." in *Proceedings of the AAAI Fall Symposium on Socially Intelligent Agents*. pp. 4-8. November 3-5, Cape Cod, MA .
- A.2.140. Cassell, J., Ananny, M., Basu, A., Bickmore, T., Chong, P., Mellis, D., Ryokai, K., Smith, J., Vilhjálmsón, H., Yan, H. (2000) "Shared Reality: Physical Collaboration with a Virtual Peer." *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, pp. 259-260. April 4-9, Amsterdam, Netherlands .
- A.2.141. Cassell, J., Bickmore, T., Billingham, M., Campbell, L., Chang, K., Vilhjálmsón, H. and Yan, H. (1999). "Embodiment in Conversational Interfaces: Rea." *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, pp. 520-527. Pittsburgh, PA .

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- A.2.142. Bickmore, T. and Cassell, J. (1999) "Small Talk and Conversational Storytelling In Embodied Interface Agents," *AAAI Fall Symposium on Narrative Intelligence*.
- A.2.143. Bickmore, T., Cook, L., Churchill, E., and Sullivan, J. (1998) "Animated Autonomous Personal Representatives." *Second International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)* .
- A.2.144. Cassell, J., Bickmore, T., Billinghamurst, M., Campbell, L., Chang, K., Vilhjálmsón, H., Yan, H.(1998) "An Architecture for Embodied Conversational Characters." *Proceedings of the First Workshop on Embodied Conversational Characters*, pp. 21-30, Tahoe City, CA .
- A.2.145. Churchill, E., Prevost, S., Bickmore, T., Hodgson, P. and Cook, L. (1998) "Design Issues for Embodied Conversational Characters", *Proceedings of the First Workshop on Embodied Conversational Characters*, pp. 149-158, Tahoe City, CA .
- A.2.146. Prevost, S., Bickmore, T. and Cassell, J. (1998) "Interactional Competency for Conversational Characters." *Proceedings of the AAAI Workshop on Representations for Multi-Modal Human-Computer Interaction* .
- A.2.147. Bly, S., Cook, L., Bickmore, T., Churchill, E. and Sullivan, J. (1998) "The Rise of Personal Web Pages at Work." *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)*, ACM Press, pp. 313-314 .
- A.2.148. Bickford, R., Bickmore, T., Meyer, C. and Zakrasjek, J. (1996) "Real-Time Flight Data Validation for Rocket Engines." *Proceedings 32nd Joint Conference on Propulsion*, Orlando, Florida, July, 1996.
- A.2.149. Gray, R., Bickmore, T. and Williams, S. (1995) "Reengineering COBOL Systems to Ada." *Proceedings 1995 Software Technology Conference*, Salt Lake City, Utah, April.
- A.2.150. Pollack, W., Nelson, L., and Bickmore, T. (1995) "Converting Hierarchical Database Systems to Relational." *Proceedings 1995 Software Technology Conference*, Salt Lake City, Utah, April, 1995.
- A.2.151. Bickmore, T. "Sensor Validation." (1994) *Proceedings 1994 Conference on Advanced Earth-to-Orbit Propulsion Technology*, George C. Marshall Space Flight Center, Alabama.
- A.2.152. Jansa, E., Bickmore, T., Makel, D., Powers, W. (1993) "Automated Hydrogen Propellant Leak Detection." *Proceedings Fifth Annual Space System Health Management Technology Conference*, Cincinnati, Ohio, April, 1993 .
- A.2.153. Bickmore, T. and Maul, W. (1993) "A Qualitative Approach to Systemic Diagnosis of the SSME." *ALAA Aerospace Sciences Conference and Exhibition*, Reno, Nevada .
- A.2.154. Bickmore, T. and Bickford, T. (1992) "Aerojet's Titan Health Assessment Expert System." *28th Joint Conference on Propulsion*, Nashville, Tennessee .
- A.2.155. Bickmore, T. (1992) "A Probabilistic Approach to Sensor Data Validation." *28th Joint Conference on Propulsion*, Nashville, Tennessee .

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- A.2.156. Cook, L., Hinkle, D., and Bickmore, T. (1990) "Planning for the manufacturing domain: long-term and reactive scheduling." *First International Conference on Expert Planning Systems*, pp. 6-10 .
- A.2.157. Cook, L. and Bickmore, T. (1990) "Towards Better Expert Systems Curricula: Lessons Learned from Industry." *Proceedings of the California State University Conference on Artificial Intelligence*.
- A.2.158. Cook, L. and Bickmore, T. (1989) "An Automatable Model of Knowledge Acquisition." *Proceedings of the Workshop on Knowledge Acquisition, International Joint Conference on Artificial Intelligence*, Detroit, Michigan .
- A.2.159. Bickmore, T. (1989) "An Object-Oriented Approach to Tactical Text Generation ." *Proceedings of the SPIE Conference on Applications of Artificial Intelligence VII*, Orlando, Florida .
- A.2.160. Bickmore, T. and Yoshimoto, G. (1987) "An Evidential Approach to Model-Based Satellite Diagnosis." *Proceedings of the SPIE Conference on Space Station Automation III*, Cambridge, Massachusetts .
- A.2.161. Findler, N., Bickmore, T., and Belofsky, M. (1983) "On Some Issues Concerning Optimization and Decision Trees." *Proceedings of the International Conference on Mathematical Modeling*, Zurich, Switzerland .

### PUBLICATIONS

#### B. Non-Refereed Articles

- B.1. Bickmore, T., Schulman, D., Sidner, C. (2009) "Issues in Designing Agents for Long Term Behavior Change" to CHI'09 workshop in Engagement by Design (position paper).
- B.2. Bickmore, T (2007) "A Virtual Nurse for Health Counseling" *MDNG Net Guide* (online publication for MDs), July.
- B.3. Bickmore, T (2007) "Virtual Nurses for Patient Education and Counseling" *Most Wired Online magazine* (online publication for hospital execs), June.

### PUBLICATIONS

#### C. Book Chapters

- C.1. Bickmore, T, O'Leary, T (2023) "Conversational agents on smartphones and the web" *Digital Therapeutics for Mental Health and Addiction*, 99-112.
- C.2. Bickmore, T, Wallace, B (2023) "Intelligent Agents and Dialog Systems" *Intelligent Systems in Medicine and Health: The Role of AI*, 257-281.
- C.3. Lugin, B, Pelachaud, C, André, E, Aylett, R, Bickmore, T, Breazeal, C, Broekens, J, Dautenhahn, K, Gratch, J, Kopp, S, Nadel, J, Paiva, A, Wykowska, A (2022) "Challenge discussion on socially interactive agents: Considerations on social interaction, computational

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architectures, evaluation, and ethics" *The Handbook on Socially Interactive Agents: 20 years of Research on Embodied Conversational Agents, Intelligent Virtual Agents, and Social Robotics*

- C.4. Bickmore, T (2022) "Health-related applications of socially interactive agents" *The Handbook on Socially Interactive Agents: 20 years of Research on Embodied Conversational Agents, Intelligent Virtual Agents, and Social Robotics*
- C.5. Bickmore, T, Trinh, H, Asadi, R (2018) "Safety First: Conversational Agents in Healthcare" in Moore, J, Szymanski, M, Arar, R, Ren, G, eds *Studies in Conversational UX Design* Springer
- C.6. Bickmore, T (2014) "Compassionate Computer Agents", in R. Calvo, *Positive Computing*, MIT Press.
- C.7. Bickmore, T (2014) "Evidence-based Approaches to Harnessing Technology to Provide Social-Emotional Support" in Marsch, L., Lord, S., Dallery, J. *Transforming Behavioral Healthcare with Technology*, Oxford University Press.
- C.8. Bickmore, T (2014) "Relational Agents in Healthcare: Leveraging Affective Computing to Promote Healing and Wellness" in Calvo, R., D'Mello, S., Gratch, J., Kappas, A., eds. *The Oxford Handbook of Affective Computing*, Oxford University Press
- C.9. Bickmore, T (2010) "Etiquette in Motivational Agents: It's not always about being nice." in *Human Computer Etiquette: Cultural Expectations and the Design Implications They Place on Computers and Technology*, Chris Miller and Caroline Hayes, eds. Auerbach Publications, pp. 205-230.
- C.10. Bickmore, T. (2010) "Relational Agents for Chronic Disease Self Management", *Health Informatics: A Patient-Centered Approach to Diabetes*, M. Hayes and W. Aspray, eds., MIT Press, pp. 181-204.
- C.11. Bickmore, T. and Picard, R. (2005) "Future of Caring Machines" in R. Bushko (ed.) *Future of Intelligent and Extelligent Health Environment*, IOS Press, Amsterdam. pp. 132-145.
- C.12. Bickmore, T., Cassell, J. (2004) "Social Dialogue with Embodied Conversational Agents" In J. van Kuppevelt, L. Dybkjaer, and N. Bernsen (eds.), *Natural, Intelligent and Effective Interaction with Multimodal Dialogue Systems*. New York: Kluwer Academic.
- C.13. Cook, L., Bickmore, T., Bly, S., Churchill, E. and Prevost, S. (1999) "Autonomous Synthetic Computer Characters as Personal Representatives" in *Human Cognition and Social Agent Technology*, K. Dautenhahn (Guest-editor). John Benjamins Publishing Company (In the Advances in Consciousness Research series).
- C.14. Cassell, J., Bickmore, T., Campbell, L., Vilhjálmsón, H. and Yan, H. (1999) "Conversation as a System Framework: Designing Embodied Conversational Agents." In *Embodied Conversational Agents*, J. Cassell, S. Prevost, E. Churchill, and J. Sullivan (editors). MIT Press.

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- C.15. Cassell, J., Vilhjálmsson, H., Chang, K., Bickmore, T., Campbell, L. and Yan, H. (1999) "Requirements for an Architecture for Embodied Conversational Characters." *Computer Animation and Simulation '99* (Eurographics Series). Vienna, Austria: Springer Verlag.

### PUBLICATIONS

#### D. Abstracts

- D.1. King, A, Campero, I, Sheats, J, Sweet, C, Hauser, M, Banda, J, Ahn, D, Bickmore, T (2020) "Physical Activity Advising by Humans vs. Computers in Underserved Populations: The COMPASS2 Trial Major Results" *Society for Behavioral Medicine Annual Meeting*.
- D.2. Penti, B., Hempstead, M., Mitchell, S., Gardiner, P., Damus, K., Sadikova, E., Yinusa-Nyahkoon, L., Culpepper, L., Bickmore, T., Jack, B. (2014) "Assessing Relationship between Intimate Partner Violence (IPV) & Preconception Care Risks in Young African-American Women (2014)" *Academy on Violence and Abuse Meeting on Controversies and Challenges in Addressing Violence and Abuse Across the Lifespan*
- D.3. Velicer, W., Redding, C., Blissmer, B., Babbin, S., Paiva, A., Bickmore, T., Johnson, J. (2014) "Using Relational Agents to Increase Engagement in Computer-based Interventions: Preliminary Outcomes" *International Congress of Behavioral Medicine*.
- D.4. Velicer, W., Reading, C., Blissmer, B., Meier, K., Babbin, S., Paiva, A., Bickmore, T., Johnson, J. (2013) "Using Relational Agents in Tailored Interventions for Multiple Risk Factors: Preliminary 12 Month Results" *Society of Behavioral Medicine (SBM) Annual Meeting*
- D.5. Bickmore, T., Schulman, D., Yin, L. (2013) "Increasing Engagement in Web-based Interventions using Relational Agents" *Society of Behavioral Medicine (SBM) Annual Meeting*
- D.6. Bickmore, T., Schulman, D., Yin, L., Ring, L. (2013) "Reaching Minority Populations with Relational Agents" *Society of Behavioral Medicine (SBM) Annual Meeting*
- D.7. Bickmore, T. (2013) "Conversational Interfaces in HCI and Behavioral Medicine" *Society of Behavioral Medicine (SBM) Annual Meeting*
- D.8. McNair, S., Checchi, K., Rubin, A., Marcello, T., Bickmore, T., and Simon, S. (2013) "A Pilot Study of a Computer-Based Relational Agent to Screen for Substance-Use Problems in Primary Care" *Society of Behavioral Medicine (SBM) Annual Meeting*
- D.9. Bickmore, T. (2013) "Agent-mediated Patient-Clinician Communication" *CHI 2013 Workshop on Patient-Clinician Communication: The Roadmap for Human-Computer Interaction*
- D.10. Bickmore, T., Utami, D., Barry, B., Henault, L., Waite, K., Matsuyama, R., Paasche-Orlow, M. (2013) "Enabling Web Search for Low Health Literacy Individuals Using Conversational Agents" *Health Literacy Annual Research Conference (HARC)*
- D.11. Wang, K., Bickmore, T., Bowen, D., Norkunas, T., Champion, M., Cabral, J. Winter, M., Paasche-Orlow, M. (2013) "Using virtual counselors to overcome literacy-related barriers in the collection of family health histories" *Health Literacy Annual Research Conference (HARC)*

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- D.12. Utami, D., and Bickmore, T. (2013) "Inadequate Health Literacy as a Vulnerability" *CHI 2013 Workshop on Designing For- and With- Vulnerable People*
- D.13. Sidner, C., Bickmore, T., Rich, C., Barry, B., Ring, L., Behrooz, M., and Shayganfar, M. (2013) "An Always-On Companion for Isolated Older Adults" *International Workshop on Techniques Toward Companion Technologies*
- D.14. Wang, C., Bickmore, T., Bowen, D., Campion, M., Norkunas, T., Larson, C., Paasche-Orlow, M. (2013) "Feasibility of using Virtual Counselors to Collect Family Health Histories from Underserved Populations" *American Public Health Association annual meeting*
- D.15. Sidner, C., Bickmore, T., Rich, C., Barry, B., Ring, L., Behrooz, M., Shayganfar, M. (2013) "Demonstration of an Always-On Companion for Isolated Older Adults" *14th Annual SIGdial Meeting on Discourse and Dialogue (SIGDLAL)*
- D.16. Checchi, K., McNair, S., Rubin, A., Marcello, T., Bickmore, T., Simon, S. (2013) "A Pilot Study of a Computer-Based Relational Agent to Screen for Substance-Use Problems in Primary Care" *Society for General Internal Medicine (SGIM) Annual Meeting*
- D.17. Ellis, T., Latham, N., DeAngelis, T., Hendron, K., Thomas, C., Saint-Hilaire, M., Bickmore, T. (2012) "Feasibility of a Virtual Exercise Coach to Promote Walking in Community-Dwelling Persons with Parkinson's Disease" *International Congress on Parkinson's Disease and Movement Disorders*
- D.18. Paasche-Orlow, M., Silliman, R., Winter, M., Cheng, D., Henault, L., Bickmore, T. (2012) "Efficacy of a Computer-based Intervention to Promote Walking in Older Adults" *Annual Meeting of the American Geriatrics Society*
- D.19. Ehrenfeld, J, Sandberg, W, Kwo, J, Bickmore, T (2010) "Use of a Computer Agent to Explain Anesthesia Concepts to Patients", *Proceedings 2010 Annual Meeting of the American Society of Anesthesiologists*.
- D.20. Pfeifer, L, Bickmore, T (2010) "Designing Embodied Conversational Agents to Conduct Longitudinal Health Interviews", *Proceedings Intelligent Virtual Agents conference (IVA), Philadelphia, PA*
- D.21. Velicer, W, Bickmore, T, Bryan Blissmer, B, Redding, C, Johnson, J, Meier, Zaffini, J (2009) "Relational Agent Interventions for Multiple Risk Factors: Demonstration and Initial Results", *Psychology & Health*, 24, 403
- D.22. Bickmore, T (2009) "Relational Agents for Addressing Health Literacy", *Proceedings of First Annual Health Literacy Research Conference, National Academy of Sciences, Washington, DC*.
- D.23. Bickmore, T. (2009) "A Responsive Virtual Human Museum Guide at the Boston Museum of Science", *Proceedings Museums & the Web conference, Indianapolis*.

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- D.24. Bickmore, T., Gruber, A., Intille, S. (2008) Just-in-Time Automated Counseling for Physical Activity Promotion, *Proceedings American Medical Informatics Association (AMIA) Annual Symposium*, Washington, DC.
- D.25. Bickmore, T (2008) “Addressing Low Health Literacy with Animated Computer Agents”, *Proceedings NIH Summit on The Science of Eliminating Health Disparities*, Washington DC.
- D.26. Bickmore T (2006) “Wearable Relational Agents for Health” *Annals of Behavioral Medicine* 31 (Suppl):S185.
- D.27. Bickmore, T. (2005) “Affecting Health Behavior through Parasocial Involvement with Interactive Computer Characters”, *Proceedings LARR Mini-Conference on Exploring Relationships in Health or Health of Relationships*, Indianapolis, IN.
- D.28. Bickmore, T. (2005) “Relational Agents for Patient Education and Counseling” *Proceedings International Conference on Communication in Healthcare*, Chicago, IL.
- D.29. Bickmore, T. (2005) “Behavioral Informatics: a Perspective from Informatics” *Proceedings Society for Behavioral Medicine Annual Meeting*, Boston, MA.
- D.30. Bickmore, T. (2005) “Conversational Health Assessment” *CHI’05 Proceedings Workshop on HCI Challenges in Health Assessment*, Portland, OR.
- D.31. Bickmore, T. (2004) “Connecting Elders to Home-based Care-giving Agents” *Proceedings CHI ’04 Workshop on Home Technologies to Keep Elders Connected*, Vienna.
- D.32. Bickmore, T. (2004) “Relational Agents for Home-based Elder Care” *Proceedings CHI ’04 Workshop on HCI and Homecare: Connecting Families and Clinicians*, Vienna.
- D.33. Bickmore, T. (2002). "When Etiquette Really Matters: Relational Agents and Behavior Change." *Proceedings of the AAAI Fall Symposium on Etiquette for Human-Computer Work*, November 15-17, Falmouth, MA.

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### PRESENTATIONS

#### E. International

- E.1. 3/21/22, “Mobile Relational Agents for Health Counseling” Closing keynote, IUI Healthy Interfaces (HEALTHI) workshop
- E.2. 6/1/21 “Health Dialogue Systems: Promise & Peril” UCSB, Mind and Machine Intelligence Virtual Summit 2021
- E.3. 4/14/21 – “Persuasive Technology in Public Health”, Keynote, Persuasive Technology Conference
- E.4. 7/8/20 – “The Future of Virtual Agents in Healthcare”, closing keynote, Council of Coaches workshop
- E.5. 11/28/17 – “Promoting Health in Disadvantaged Populations with Conversational Agents”, ETH Zurich.
- E.6. 1/27/17 - “Coaching to Death”, Keynote, Conference on e-Coaching for Health and Wellbeing, Amsterdam.
- E.7. 11/12/12 “Relational Agents in Patient Education and Counseling”, 43rd NIPS International Symposium: Face Recognition and Perception, Okazaki, Japan.
- E.8. 5/22/12 “Relational Agents in Patient Education and Counseling”, Computer Science Colloquium, Kyoto University, Kyoto, Japan.
- E.9. 5/7/12 – “Relational Agents in Patient Education and Counseling”, Computer Science Colloquium, Seikei University, Tokyo.
- E.10. 5/9/12 – “Relational Agents in Patient Education and Counseling”, National Institute for Informatics, Tokyo.
- E.11. 9/17/09 “Personal Health Advocates”, University of Twente Computer Science Colloquium, Twente, Netherlands.

### PRESENTATIONS

#### F. National

- E.12. 11/3/22 - "Nonverbal behavior and embodied conversational agents" - MIT Media Lab course MAS.S61, "Extended Cognition: Designing for Embodied, Spatial, and Social Thinking", guest lecture, Pattie Maes instructor
- E.13. 6/24/22 – “Relational Agents for Patient Education & Counseling” - Mass General Hospital, Precision Psychiatry Seminar
- E.14. 4/21/21 – “Relational Agents”, guest lecture, MAS.S61 AI & Good Mental Health, MIT, Rosalind Picard, instructor

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- E.15. 3/12/21 – “Health Dialog Systems: Promise & Peril”, Computer Science Dept Colloquium, U. Mass Lowell
- E.16. 10/15/20 – “Patient and Consumer Safety when using Conversational Assistants for Medical Information”, Workshop on Safety in Conversational AI, Harvard University
- E.17. 9/28/18 – “Health Counseling Dialogue Systems – Promise & Peril” – Brandeis University, Computational Linguistics Seminar, Computer Science Department.
- E.18. 12/2/17 - “MD or WebMD?” panel at “MedStart” conference, Tufts Medical School
- F.1. 3/18/16 “Agents? Seriously”, Keynote presentation at IEEE Virtual Reality Conference.
- F.2. 8/19/14 “Relational Agents for Patient Education and Counseling”, Keynote presentation at Workshop on “Agents and Avatars in Healthcare”, Kaiser Permanente Healthcare, California.
- F.3. 4/10/14 “Automated Health Counselors for Underserved Populations”, University of Connecticut Center for Health, Intervention, and Prevention (CHIP) Seminar.
- F.4. 3/7/14 “The Avatar Will See You Now: Inside Virtual Health” South by Southwest (SXSW) Conference, Austin, Texas.
- F.5. 10/1/13 “Relational Agents in Patient Education and Counseling”, Rehabilitation Engineering Research Center annual meeting, University of Colorado, Denver.
- F.6. 9/16/13 “Reaching Disadvantaged Populations with Conversational Agents”, Symposium on Using Informatics to Promote Health Equity, Harvard Medical School.
- F.7. 6/18/13 “Relational Agents for Preconception Care”, Health Resources and Services Administration, Washington, DC.
- F.8. 5/17/13 “Relational Agents for mHealth and Mental Health Interventions”, Securing Information Technology in Healthcare Symposium, Dartmouth University.
- F.9. 3/20/13 “Relational Agents for Wellness Counseling”, Apple Computer, Cupertino, CA.
- F.10. 3/20/13 “Avatars in Senior Care Settings”, McKnight Webinar on Long-Term Care (1,006 national participants).
- F.11. 2/6/13 “Relational Agents for Wellness Counseling”, MIT Future of Wellness Conference, MIT, sponsored by the Industrial Liaison Program office.
- F.12. 12/19/12 “Simulating Health Behavior Counseling Using Relational Agents”, IOM Forum on Aging, Disability and Independence, Institute of Medicine, Washington, DC.
- F.13. 10/5/12 – “Relational Agents in Mental Health Interventions” – Dartmouth Psychiatric Research Center, Dartmouth University.

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- F.14. 9/13/12 - "A National Web Conference on the Innovative Use of Technology by Patients to Enable Behavioral Changes in Hard-to-Reach Populations" – AHRQ sponsored webinar on Preconception Care (national audience of 306).
- F.15. 10/1/12 – "Relational Agents as Virtual Healthcare Workers", Future of Health Technology Symposium, MIT, Cambridge.
- F.16. 7/29/10 "Relational Agents in Nursing", American Medical Informatics Association (AMIA) Nursing Informatics SIG, webinar.
- F.17. 5/4/10 "Emerging Technologies - Demo of the Workflow Toolkit and the Virtual Patient Advocate" (with Brian Jack, MD, BMC), Agency for Healthcare Research and Quality (AHRQ) Annual Health IT Grantee and Contractor Meeting, Washington, DC.
- F.18. 4/9/10 - "Patient Care for the Hospital-to-Home Transition", National Advisory Council for the Agency for Healthcare Research and Quality, Rockville, MD.
- F.19. 3/12/10 "Anthropomorphic Interfaces for the Underserved", Stanford Seminar on People, Computers, and Design, Stanford University, CA.
- F.20. 3/10/10 "Relational Agents for Patient Education and Counseling", Biomedical Informatics Seminar, University of Arizona/Arizona State University College of Medicine.
- F.21. 3/10/10 "Personal Health Advocates", Arts, Media and Engineering Program Seminar, Arizona State University.
- F.22. 3/4/10 "Personal Health Advocates", GVM Brown Bag talk, Georgia Tech, Atlanta.
- F.23. 9/23/09 "Personal Health Advocates", University of Illinois, Urbana-Champaign Computer Science Colloquium.
- F.24. 9/29/09 "Intelligent Caring Machines: Real Emotions in Virtual Worlds", Future of Health Technology Summit 2009, MIT, Cambridge, MA.
- F.25. 5/2/09 "Relational Agents: Adding the Human Touch to Telemedicine", at "Patient-Centered Computing and eHealth: Transforming Healthcare Quality", sponsored by Partners Healthcare and Harvard Medical School.
- F.26. 7/24/09 "Taking the Time to Care: Empowering Low Health Literacy Hospital Patients with Virtual Nurse Agents" webinar for The Innovation Learning Network – 19 attendees (consortium of hospitals and design firms, exploring new concepts in healthcare).
- F.27. 3/31/09 "Improving Patient Safety: Implementing Re-Engineered Hospital Discharges Web Conference" with Brian Jack, MD, webcast to 1,469 attendees, Sponsored by the U.S. Agency for Healthcare Research and Quality.
- F.28. 1/30/09 "Dialogue Systems for Longitudinal Health Counseling" – Worcester Polytechnic Institute Computer Science Colloquium.

## BICKMORE - CURRICULUM VITAE

- F.29. 9/19/08 “New Health IT System to Assist Patient Transitions and for Preconception Care”, Centers for Disease Control and Prevention, Atlanta.
- F.30. 9/23/08 “Relational Agents for Health Communication”, Future of Health Technology Institute Summit, MIT.
- F.31. 10/1/08 “Relational Agents: Social and Communicative Competencies for Maintaining Engagement with Users Over Multiple Interactions”, USC Computer Science Colloquium.
- F.32. 10/2/08 “Long-Term Human-Computer Relationships”, Workshop on Intelligent Lifelong Learning Companions, USC Institute for Creative Technologies.
- F.33. 11/10/08 “Movie Magic in the Clinic: Computer-Generated Characters for Automated Health Counseling”, American Medical Informatics Association annual meeting, Washington, DC.
- F.34. 6/3/08, “Relational Agents for Health Behavior Change”, Summit on Behavioral Telehealth: Technology for Behavior Change & Disease Management, Harvard Medical School,
- F.35. 6/3/08 “Relational Agents for Clinical Care”, Gaming, Simulation & Social Media in Behavioral Health & Disease Management, Summit on Behavioral Telehealth post-conference workshop, Harvard Medical School.
- F.36. 3/28/08 “Relational Agents: Adding the Human Touch to Telemedicine”, invited talk, *Patient-Centered Computing and eHealth: Transforming Healthcare Quality*, Omni Parker House Hotel, Boston.
- F.37. 3/19/08 “I’m not a Social Robot, but I Play One on TV!”, *NSF CPATH Workshop on Social Robotics*, Invited talk, Schenectedy Museum, Schenectedy, NY.
- F.38. 11/9/07 “Relational Agents for Health Communication”, *Merck & Co, Inc. pharmaceuticals I-D-E-A Innovation Conference*, Blue Bell, PA.
- F.39. 3/24/07 “Relational Agents for Health Behavior Change” Symposium on “Applying Biomedical Informatics to Cancer Screening: The Future is Now”, *Society of Behavioral Medicine annual conference*, Washington, DC.
- F.40. 2/22/07 “Relational Agents: Virtual Nurse and Portable Exercise Advisor”, *Future of Health Technology Symposium*, Centers for Disease Control, Atlanta, GA.
- F.41. 10/13/06 “Automated Tailoring in Health Dialogue Systems”, *Conference on Targeting & Tailoring for Health Interventions*, Univ. of Connecticut, Storrs, CT.
- F.42. 9/25/06 “Relational Agents Group Demonstrations: Portable Exercise Coach and Virtual Nurse”, Future of Health Technology Summit, MIT, Cambridge, MA.

## BICKMORE - CURRICULUM VITAE

- F.43. 5/31/06 “Machines that Care: Building Empathy into Assistive Devices” invited talk given at the *State of the Science Conference on Exercise and Recreational Technologies for People with Disabilities*, Denver, CO.
- F.44. 9/26/05 “Future of Caring Machines” invited talk given at the *Future of Health Technology Summit*, Cambridge, MA.
- F.45. 8/17/05 “Long-Term Human-Computer Relationships” invited talk given at biannual meeting of the *National Academy of Sciences Committee on Human Factors*, Woods Hole, MA.

### PRESENTATIONS

#### G. Regional / Local

- G.1. 10/21/18 “Technology Trends in Sex, Relationships, and Therapy”, LGBT Taskforce of the New York State Psychological Association Annual Meeting, New York.
- G.2. 9/28/18 “Health Counseling Dialogue Systems: Promise & Peril”, Brandeis University, Computational Linguistics Seminar, Computer Science Department
- G.3. 2/19/15 “Relational Agents for Patient Education and Counseling”, Mt. Auburn Hospital Grand Rounds, Cambridge, MA.
- G.4. 9/24/12 – “Relational Agents for Mental Health Interventions: Overcoming Health Literacy Barriers“, Symposium on Innovative Use of Technology in Behavioral Health Care, Northeastern University
- G.5. 6/10/10 “Improving Informed Consent: Computer Relational Agents for Patient Anesthesia Education and Consent”, Department of Anesthesia, Critical Care and Pain Medicine Case Conference, Massachusetts General Hospital, Boston, MA.
- G.6. 5/21/10 “Relational Agents in Nursing”, Closing Keynote, New England Nursing Informatics Consortium (NENIC) Annual Symposium, Waltham, MA.
- G.7. 5/14/10 “Relational Agents for Patient Education and Counseling”, IBM Watson Research Center, Yorktown Heights, NY.
- G.8. 4/27/10 “Health Promotion and Social Support by Relational Agents”, IBM Research Cambridge – Social Networking & Collaboration research groups.
- G.9. 4/21/10 “Personal Health Advocates”, Northeastern University “Insights” lecture, NU Alumni Center.
- G.10. 3/17/10 “Computer Agents to Promote Walking in Older Adults with Low Health Literacy”, Health & Disability Research Institute, Boston University School of Public Health.
- G.11. 2/4/10 “Relational Agents for Patient Education and Counseling” invited talk given at the North Shore Cardiovascular Nursing Association Annual Meeting, Danvers, MA.

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- G.12. 1/15/10 “ElderWalk – Lessons Learned”, Pepper Center Geriatrics Career Development Seminar, Boston University School of Medicine.
- G.13. 11/2/07 “Relational Agents for Health Counseling”, Guest lecture in *Designing Interactive Characters* course, part of the Computer Game Design curriculum, Prof. Katherine Isbister, instructor, Renseaeller Polytechnic Institute.
- G.14. 11/1/07 “Engagement, Stickiness and Adherence: Keeping users entranced, even when it's for their own good”, Northeastern University CCIS PhD Seminar.
- G.15. 10/17/07 “Engagement, Stickiness and Adherence: Keeping users entranced, even when it's for their own good”, *Tufts University Computer Science Dept Colloquium*.
- G.16. 9/25/07 “Conversational Agents for Health Communication with Low Literacy Patients”, *BMC Family Medicine Grand Rounds*, Boston Medical Center.
- G.17. 4/23/07 “What Would Jiminy Cricket Do? Lessons from the first Social Wearable”, *MIT Media Lab Affective Computing Group Seminar*, MIT.
- G.18. 4/19/07 “What Would Jiminy Cricket Do? Lessons from the first Social Wearable”, *Northeastern University Science, Technology and Society Seminar*, Northeastern University.
- G.19. 4/18/07 “Empathic Computer Characters for Health Behavior Change” *Electronic Media & Health Behavior Change Interest Group*, New England Research Institute, Watertown, MA.
- G.20. 3/29/07 “Relational Agents for Comforting and Pain Management” *Johnson & Johnson workshop on technologies for chronic pain management*, MIT, Cambridge, MA.
- G.21. 3/5/07 “Cognitive Science in Medical Informatics” *BU GMS 706 Computer Applications in Health Care and Biomedicine* (guest lecture), Boston University School of Medicine.
- G.22. 3/1/07 “Entrepreneurship in Health and Technology” *Northeastern University's 'Entrepreneurship Week'* (presentation and panel discussant).

## **BICKMORE - CURRICULUM VITAE**

### **EXHIBITIONS**

#### **H. National**

- H.1. 10/9/09 A customized version of the Virtual Nurse system was demonstrated to Kathleen Sebelius, Secretary of Health and Human Services, by Carolyn Clancy, Director of the Agency for Healthcare Research and Quality. Agency for Healthcare Research and Quality, Rockville, MD.
  
- H.2. 7/16/08 A custom Relational Agent system was demonstrated to Admiral Gary Roughneck, Chief of Naval Operations at the Pentagon, as part of an annual briefing on future technologies for the healthcare in naval operations. Organized and presented by the Strategic Studies Group. Washington, DC.

### **EXHIBITIONS**

#### **I. Local**

- I.1. 2/08-3/14 – “Tinker” installation in the ComputerPlace exhibit at the Boston Museum of Science. Tinker is a virtual museum guide that gives directions to and explanations of museum exhibits, describes her own implementation, and uses social and relational behavior together with a biometric user identification system to engage museum visitors in running conversations during their visit. Over 170,000 museum visitors interacted with Tinker during its operation.
  
- I.2. 10/27-28/09 – Virtual Nurse system demonstrated (along with 4 other Relational Agent systems) at the CIMIT Innovation Congress Exploratorium, Boston.

## BICKMORE - CURRICULUM VITAE

### J. PATENTS

- J.1. Vu, C., Cross, M., Bickmore, T., Gruber, A., Campbell, T. (2015) *Companion robot for personal interaction*, iRobot corp. US Patent 8935006, granted Jan. 13, 2015.
- J.2. Cook, L., Bickmore, T., Sullivan, J., Churchill, E., and Prevost, S. (2006) *System for designing and rendering personalities for autonomous synthetic characters*, Fuji Xerox Co & Xerox Corp. US Patent 7061493 B1, granted June 13, 2006.
- J.3. Bickmore, T., Schilit, W., Girgensohn, A., and Sullivan, J. (2005) *Document re-authoring systems and methods for providing device-independent access to the world wide web*, Fuji Xerox Co & Xerox Corp. US Patent 6,857,102 granted February 15, 2005.
- J.4. Prevost, S., Bickmore, T., Sullivan, J. Churchill, E., and Girgensohn, A. (2003) *Method and apparatus for embodied conversational characters with multimodal input/output in an interface device*, Fuji Xerox Co & Xerox Corp. US Patent 6,570,555 granted May 27, 2003.
- J.5. Bickmore, T., Sullivan, J., Churchill, E., Bly, S. and Cook, L. (2002) *Method and Apparatus for Creating Personal Autonomous Avatars*. Xerox Corporation. US Patent 6,466,213 granted October 15, 2002.
- J.6. Wilcox, L., Schilit, W., Sawhney, N., Sullivan, J. and Bickmore, T. (1998) *System for capturing and retrieving audio data and corresponding hand-written notes*. Xerox Corporation and Fuji Xerox Company, Ltd. U.S. Patent 5,970,455, Granted Oct. 19, 1999. International Patent granted in June 1998.
- J.7. Makel, D., Jansa, E., Cahill, D. and Bickmore, T. (1996) *Remotely controllable LNG field station management system and method*. U.S. Patent 5,586,050, Granted December 17th, 1996.

## BICKMORE - CURRICULUM VITAE

### GRANTS

#### K. External Funded

- K.1. NIH/NLM Award 1R01LM014084 (Bickmore, Michael Paasche-Orlow, PIs), “Advancing Medical Illustration in Patient Education Materials: from Art to Science”, 9/1/23-5/31/27, \$1.1M total.
- K.2. NIH/NIDA Award 1R34DA058124 (Bickmore, Karsten Lunze, PIs), “Sustaining recovery for people on opioid agonist treatment with conversational agents”, 9/30/23-8/31/26, \$650K total.
- K.3. US Veterans Administration Award 1I01RX004804 (Erin Reilly, PI), “Assessing the Efficacy of an Acceptance-Based Digital Intervention to Improve Functioning for Veterans with Chronic Pain”, 11/1/23-10/31/27, \$1.1M total, NU total \$130K.
- K.4. NIH/NCI Award R01CA273208 (Bickmore, Michael Paasche-Orlow, Rebecca Perkins, co-PIs), “Conversational Agents to Improve HPV Vaccine Acceptance in Primary Care”, 07/14/2022 – 06/30/2027, \$3.5M total.
- K.5. NIH/NCI Award R01CA263532 (Bickmore, Danielle Braun, Charite Ricker, co-PIs), “Increasing Access to Genetic Testing in Underserved Patients Using a Multilingual Conversational Agent” 06/01/2022 – 05/31/2026, \$3.1M total.
- K.6. NIH/NCI Award 1R01CA271145 (Bickmore, Michael Paasche-Orlow co-PIs), “Improving PRO Interpretation at the Individual Level for Patients with Cancer using Conversational Agents and Data Visualization” 03/01/2022-02/28/2027, \$3.4M total.

### GRANTS

#### N. Internal Funded

- N.1. Northeastern University Bouve College of Health Sciences Pilot Project Grant (*Tier 1*) (Roger Edwards, PI), “Using Computer Agents to Provide Information and Support to Breastfeeding Mothers”, 5/1/10-12/1/10, \$50,000.
- N.2. Boston University Department of Medicine Pilot Project Grant (Bickmore, PI) “Impact of Relational Agent Technology on Exercise Adoption in an Older Adult Population” 7/1/03—12/31/04, \$14,000 (while at BU).

## BICKMORE - CURRICULUM VITAE

### TEACHING

#### O. Courses

1. CS7340, Theory and Methods in HCI, Fall 2024, 9 students.
2. CS7300, Research Methods in HCI, Spring 2024, 23 students.
3. CS7300, Research Methods in HCI (new Ph.D. course), Spring 2023, 24 students.
4. CS7340, Theory and Methods in HCI, Fall 2022, 24 students.
5. CS7340, Theory and Methods in HCI, Fall 2021, 32 students.
6. CS7340, Theory and Methods in HCI, Fall 2020, 16 students.
7. IS2000, Principles of Information Science, Fall 2018, 49 students.
8. IS4800, Empirical Research Methods for Information Science, Spring 2018.
9. IS4800, Empirical Research Methods for Information Science, Spring 2017.
10. IS4300, Human Computer Interaction, Fall 2016.
11. IS4800, Empirical Research Methods for Information Science, Spring 2016.
12. IS4300, Human Computer Interaction, Fall 2015.
13. IS4300, Human Computer Interaction, Fall 2014, 24 students.
14. IS4800, Empirical Research Methods for Information Science, Spring 2014, 16 students.
15. CS 6350, Empirical Research Methods, Spring 2014, 5 students.
16. IS 4300, Human Computer Interaction, Fall 2013, 30 students.
17. IS 4800, Empirical Research Methods for Information Science, Spring 2013, 23 students.
18. CS 6350, Empirical Research Methods, Spring 2013, 6 students.
19. IS 4300, Human Computer Interaction, Fall 2012, 20 students.
20. IS 4800, Empirical Research Methods for Information Science, Spring 2011, 7 students.
21. IS 4800, Empirical Research Methods for Information Science, Spring 2010, 7 students.
22. CS 5340, Human-Computer Interaction, Fall 2010, 37 students.
23. IS 4800, Empirical Research Methods for Information Science, Spring 2010, 13 students.

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24. CS G170, Human-Computer Interaction, Fall 2009, 32 students.
25. IS U580, Empirical Research Methods for Information Science, Spring 2009, 11 students.
26. CS G170, Human-Computer Interaction, Fall 2008, 13 students.
27. IS U580, Empirical Research Methods for Information Science, Spring 2008, 24 students.
28. CS G228, Empirical Research Methods, Spring 2008, 4 students (developed new content for this course).
29. CS G170, Human-Computer Interaction, Fall 2007, 15 students.
30. IS U580, Empirical Research Methods for Information Science, Spring 2007, 25 students.
31. CS G170, Human-Computer Interaction, Fall 2006, 21 students.
32. IS U580, Empirical Research Methods in Information Science, Spring 2006, 23 students (developed all new content for this course).
33. CS G170, Human-Computer Interaction, Fall 2005, 16 students (developed all new content for this course).

## BICKMORE - CURRICULUM VITAE

### TEACHING

#### P. Supervision of Graduate Students

Ph.D. Students advised:

1. Daniel Schulman, defended Dec, 2012, CS thesis “Embodied Agents for Long-Term Discourse”
2. Laura Pfeifer Vardoulakis, defended Mar, 2013, CS thesis “Social Desirability Bias and Engagement in Systems Designed for Long-Term Health Tracking”
3. Langxuan (James) Yin, defended May, 2015, CS thesis, “The Construction and Evaluation of a Design Framework for Narrative Games for Health”
4. Lazlo Ring, defended August, 2017, CS thesis “An Affect-Aware Dialogue System for Counseling”
5. Dina Utami, defended October, 2019, CS thesis “Computational Framework for Facilitating Intimate Dyadic Communication”
6. Zhe (Zessie) Zhang, defended March, 2020, PHI thesis “Medical Shared Decision Making with Embodied Conversational Agents”
7. Ameneh Shamekhi, defended May, 2020, CS thesis “Conversational Agents for Automated Group Meeting Facilitation”
8. Stefan Olafsson, defended August, 2020, PHI thesis “A Hybrid Structured-Neural Dialog System for Automated Counseling”
9. Everlyne Kimani, defended November, 2021, CS thesis “Automated Interventions for Public Speaking Anxiety”
10. Shuo Zhou, defended December, 2021, PHI thesis “Automating Cancer Genetic Counseling with Embodied Conversational Agents”
11. Teresa O’Leary, defended August, 2023, PHI thesis “Co-Design and Evaluation of a Smartphone-based Mental Health Promotion and Anti-stigma Embodied Conversational Agent for Church-affiliated Black Adults”
12. Prasanth Murali, defended November, 2023, CS thesis, “Enhancing Affect Communication during Public Speaking through Sensing and Social Biofeedback”
13. Yunus Terzioglu (current, 6<sup>th</sup> year CS)
14. Hye Sun Yun (current, 5<sup>th</sup> year CS)
15. Farnaz Nouraei (current, 4<sup>th</sup> year CS)
16. Mina Fallah (current, 3<sup>rd</sup> year PHI)
17. Ian Steenstra (current, 2<sup>nd</sup> year CS)
18. Armin Arjmand (current, 2<sup>nd</sup> year CS)
19. Chongyang Wang (current, 1<sup>st</sup> year CS)
20. Zhuorui Yong (current, 1<sup>st</sup> year CS)

Ph.D. Students “mentored” (within first two years):

1. Maryam Aziz (transitioned to Aslam)
2. Jingjing Ren (transitioned to Chofnes)
3. James Satterly (dropped)
4. Daniel Mauer (dropped)
5. George Shaw (dropped)
6. Zachary Donovan (dropped)

Master’s Students advised:

## BICKMORE - CURRICULUM VITAE

1. Keith Rebello, defended April, 2023, thesis “Improving User Affect Through Empathic Conversational Agents”
2. Ramesh Manuvinakurike, defended May, 2013, thesis “Automated Indexing of Stories for Conversational Health Intervention”
3. Rukmal Fernando, defended Dec, 2009, thesis “Automated Explanation of Research Informed Consent by Embodied Conversational Agents”

Service on Northeastern University Ph.D. committees:

1. Elin Carstensdottir, defense November, 2019.

Service on External Ph.D. committees:

1. Nastaran Saffaryazdi, Ph.D. Oral Examiner, University of Auckland, NZ, defense 7/30/24.
2. Jasie Sin, Ph.D. committee, University of Toronto, defense 10/4/23.
3. Sooyeon Jeong, Ph.D. committee, MIT Media Lab, Ph.D., defense 4/15/22.
4. Heera Lee, Ph.D. committee, University of Maryland Baltimore (UMBC), defense 1/13/22.
5. Angelo Cafaro, Ph.D. committee, Reykjavik University, defense 3/14.
6. Priyadarshi Tiwari, School of Graduate Studies, The University of Auckland, NZ, 9/12.
7. Hua Cai, Northeastern University Department of Mechanical and Industrial Engineering, defense 8/27/10.
8. Audrey Girouard, Tufts University Department of Computer Science, defense 5/28/10.
9. Cory Kidd, MIT Media Lab, Ph.D. general exam committee, 2/05

Other Graduate Supervision Activities – Project Courses:

1. CS 5976 Directed Study, Spring '14, supervised Exercise Science student Kathleen Totzke.
2. CS 674 MS Project, Summer '10, supervised CS Master's student: Rauno Peets.
3. CS 674 MS Project, Spring '10, supervised CS Master's student: Dina Utami.
4. Nursing Research Practicum, Spring '10, supervised Elizabeth Gallagher.
5. CS 674 MS Project, Fall '07, supervised two CS Master's students: Chaamari Senanayake and Sepalika Perera.
6. Nursing Research Practicum, Summer '07, supervised David Patterson and Keith Wandolowski.
7. CS674 MS Project, Fall '06, supervised two CS Master's students: Sam Carroll and William Goode.

### **Q. Other Advising Activities**

1. Ha Trinh, Postdoctoral Scholar, 1/14-9/18
2. Dhaval Parmar, Postdoctoral Scholar, 9/17-10/21.
3. Matias Volante, Postdoctoral Scholar, 6/21-5/23.
4. Northeastern IS U691 Field Study, Fall '07-Spring'08, supervised undergraduate: Mark Catalano.

## BICKMORE - CURRICULUM VITAE

### SERVICE

#### R. University & College

1. Chair, Personal Health Informatics Curriculum Committee, Fall'22-Present
2. Associate Dean for Research, CCIS/Khoury College, Fall'17-Spring'22
3. CCIS/Khoury College Research & Awards Committee, Fall'17-Spring'22
4. NU Research Reputation Committee, Summer'21
5. NU Theater Faculty Search Committee, Fall'20-Spring'21
6. NU Research Cluster Lifecycle Committee, Spring'21
7. NU Research Professor Task Force, Fall'20
8. Khoury Sabbatical Committee, Fall'20
9. Provost Tenure Advisory Committee – Spring '18
10. NU NEASC Accreditation Committee, Fall'17 – Spring '18
11. NU Faculty Senate Agenda Committee, Fall'15 – Spring'17
12. NU Faculty Senate, CCIS Representative, Spring'14-Spring'17
13. Chair, PhD Committee, Fall'12-Spring'14
14. PhD Committee, Fall'10-Spring'11
15. Chair, Health Sciences/Computer Science Health Informatics Search Committee, Fall'09-Spring '10
16. Hiring Committee, Fall'08-Spring'09
17. Ph.D. Committee, Spring '06-Spring '08
18. Undergraduate Committee, Fall '05.

### SERVICE

#### S. Profession

##### Organization chair:

1. Co-Chair, Society for Behavioral Medicine, Technology SIG (2013-2014).

##### Conference/workshop chair:

1. Program Committee Co-Chair, 2024 Intelligent Virtual Agents (IVA) Conference, with Stacy Marsella and Gale Lucas.
2. Co-Chair, 2023 Doctoral Consortium, Intelligent Virtual Agents (IVA) Conference.
3. Co-Chair, 2023 Workshops, Affective Computing and Intelligent Interaction (ACII) Conference.
4. Co-Chair, 2014 Intelligent Virtual Agents (IVA) Conference, with Stacy Marsella, Candace Sidner
5. Co-Chair, 2010 Intelligent Virtual Agents (IVA) Conference, with Norm Badler, Catherine Pelachaud, and Jan Allbeck.
6. Co-Chair, 2009 ACM Computer-Human Interaction (CHI) Workshop on “Engagement by Design”, with Stephen Intille and Sunny Consolvo.
7. Co-Chair, 2006 Association for the Advancement of Artificial Intelligence (AAAI) Spring Symposium on “Argumentation for Consumers of Healthcare”, with Nancy Green.
8. Chair, 2005 AAAI Fall Symposium on “Caring Machines: AI in Eldercare”
9. Chair, 2004 AAAI Fall Symposium on “Dialogue Systems for Health Communication”

##### Senior Program Committee:

1. ACM Computer-Human Interaction (CHI) (2012-2018,2022,2023).
2. Affective Computing and Intelligent Interaction (ACII) (2021-2023).
3. American Medical Informatics Association (AMIA) annual meeting (2011).

## BICKMORE - CURRICULUM VITAE

4. American Psychological Association Technology Mind and Society (TMS) meeting (2021).
5. Autonomous Agents and Multi-Agent Systems (AAMAS) (2023).
6. Conversational User Interfaces (CUI) (2022).
7. International Conference on Multimodal Interfaces (ICMI)(2021-2023).
8. Intelligent Virtual Agents (IVA)(2011-2023)

### **Journal editor:**

1. Member editorial board, Health Literacy Research and Practice journal (current)
2. Member editorial board, Interacting with Computers journal (-2022)
3. Guest editor for special issue of the Interacting with Computers journal on “Supporting Interaction: Computers Interventions in Mental Health”, 22(10), 2010.
4. Guest editor for special issue of the Journal of Biomedical Informatics on “Dialog Systems for Health Communication”, 39, 2006.

### **Reviewer for the following journals:**

1. ACM Transactions on Computer-Human Interaction (ToCHI)
2. American Journal of Clinical Dermatology
3. Communications of the ACM
4. International Journal of Human-Computer Studies
5. International Journal on Artificial Intelligence in Medicine
6. Interacting with Computers
7. Journal of Biomedical Informatics
8. Journal of Health Communication
9. Journal of Medical Internet Research
10. Transactions on Speech and Language Processing
11. User Modeling and User-Adapted Interaction
12. IEEE Transactions on Affective Computing
13. Patient Education and Counseling

### **Reviewer for the following conferences:**

1. ACM International Health Informatics (IHI) Conference (2010)
2. ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)(2005-2017,2022)
3. ACM Symposium on User Interface Software and Technology (UIST)(2006)
4. American Medical Informatics Association (AMIA) Annual Symposium (2007, 2008, 2011)
5. Association for the Advancement of Artificial Intelligence (AAAI) Symposia (2005-2015)
6. Association for Computational Linguistics (ACL)(2006, 2010)
7. Autonomous Agents and Multi-Agent Systems (AAMAS)(2005,2008-2010,2023)
8. Computer Supported Collaborative Work (CSCW)(2006)
9. Conversational User Interfaces (CUI)(2022-2023)
10. Human-Robot Interaction (HRI)(2008)
11. Intelligent User Interfaces (IUI)(2008-2010)
12. Intelligent Virtual Agents (IVA)(2008-2023)

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13. International Conference on Computational Linguistics (COLING)(2010).
14. International Conference on Multimodal Interfaces (ICMI)(2008,2023)
15. North American Chapter of the Association for Computational Linguistics (NAACL)(2019)
16. Nordic Human-Computer Interaction (NordiCHI)(2010)
17. Persuasive Technology (2008-2015)
18. Pervasive Health (2010)
19. SIGGRAPH (2004)
20. Society for Behavioral Medicine (2015)
21. User Interface Standards and Technology (UIST)(2013)

### **Reviewer for the following workshops and symposia:**

1. AAMAS Workshop on Creating Bonds with Humanoids (2005)
2. AISB Symposium on Persuasive Technology (2008)
3. AISB Symposium on Mind-Minding Agents (2005)
4. AISB Symposium on Conversational Informatics for Supporting Social Intelligence & Interaction (2005)
5. Computational Models of Natural Argument (CMNA) (2011-2014)
6. Cybertherapy 2013 workshop on Electronic Health Coaching (2013)
7. Portuguese Conference on AI Workshop on Affective Computing: towards Emotional Intelligent Systems (2005)
8. PRICAI Workshop on Lifelike Animated Agents (2002)
9. Workshop on Social and Emotional Intelligence in Learning Environments (2004)

### **Grant reviewer for the following agencies:**

1. NSF, CISE/HCC core, 5/11/23.
2. NSF, FRR, 10/21/21.
3. NSF, SCC 4/22/21.
4. NSF, STC site visit team, 10/12/20.
5. NIH/NLM panel 7/9/20.
6. NSF SCC, 6/26/20.
7. NSF HCC, 4/20/20.
8. NIH/NLM, 12/5/19.
9. NIH/NLM 3/22/19.
10. NSF SCH, 3/27/19.
11. NIH/NLM 6/18.
12. NSF, CAREER, 2017, Washington, DC.
13. NSF, Social Computational Systems (SoCS), 1/26-1/27/12, Washington, DC.
14. NSF, CISE HCC panel, 3/30-/3/31/11, Washington, DC.
15. NSF, CAREER, 12/9-12/10/10, Washington, DC.
16. Science Foundation Ireland, Investigator Programme Grant, 7/29/10.
17. NIH, Health Literacy panel, 6/28-6/29/10, Washington DC.
18. NSF, IIS Core program panel, 5/4/10, videoconference.
19. US Army Medical Research and Materiel Command review, 1/11/10.
20. NIH, National Library of Medicine, EUREKA panel, 1/23/09, Washington, DC.
21. NSF, Advanced Learning Technologies panel, 6/9-10/08, Washington, DC.
22. NSF, CISE HCC panel, 3/1/08, Washington DC.

## BICKMORE - CURRICULUM VITAE

23. NSF, CAREER panel, 9/2/07, Washington DC.
24. NSF, HCC panel, 1/31-2/1/07, Washington DC.
25. NSF, Science of Design panel, 3/14-3/15/06, Washington DC.
26. NIH, National Library of Medicine R21 panel, 2/16/06, Washington DC.
27. NIH, National Library of Medicine R21/R03 panel, 11/29/05, Washington DC.
28. NIH, Musculoskeletal Tissue Engineering Study Section panel for Bioengineering Research Partnership grants, 11/1/05, Washington DC