Lazlo Ring

lazloring@gmail.com   917-783-6965

Education

Northeastern University, Boston, MA   Expected Graduation: Summer 2017

Ph.D., Computer Science – Human-Computer Interaction

Stony Brook University, Long Island, NY   Fall 2008

B.S., Computer Science & B.S., Psychology

Employment

Northeastern University, Boston, MA   Fall 2008 – Present

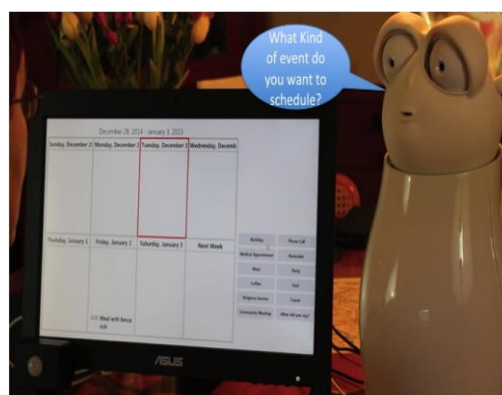*Research Assistant, Relational Agents Group*

An Affectively-Aware Dialogue System for Counseling (Ph.D Thesis)

Development of a theoretical framework for learning and generating empathic statements that respond to a user's affective state in real time. Designed and developed an embodied conversational agent and dialogue system to evaluate the theoretical framework, along with a support tool to predict which dialogue states require empathic feedback. Currently being evaluated in a month-long in-home automated depression counseling system developed in collaboration with a therapist at Massachusetts General Hospital.

AlwaysOn

Development of an agent designed to provide social support to isolated older adults. Developed the embodied conversational agent used in the system and the cross-platform API used to communicate between the agents (embodied/robotic) and the underlying dialogue system. Designed and evaluated a study assessing the effect of passive versus proactive agent engagement on user loneliness during a week-long in-home intervention. Led the final system's evaluation studies, which included a month-long intervention assessing the efficiency of the system, and differences between embodied conversational agent and robot based variants of the system.
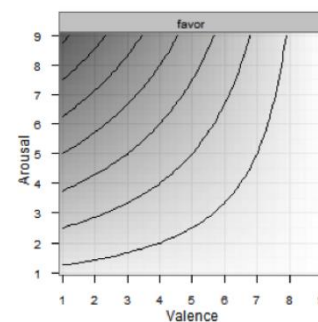
Preconception Care Pilot System

Development of an agent based health behavior change system for young African-American women. Developed the web based embodied conversational agent used in the system, along with the open-source web-deployment tool used to drive it (Litebody). Collaborated with doctors at Boston Medical Center to design the dialogue system used to support the multi-behavior intervention that spanned across 108 unique health risks.

Virtual Laboratory

Designed and conducted a month-long research study investigating the effects of mood and persuasive request phrasing on exercise motivation delivered by a virtual agent. Found significant evidence that the form of a persuasive message should be tailored based on a user's mood to be maximally efficient.

Actor Machine, New York, NY   Spring-Summer 2008

Software Engineer

- Developed and optimized a Java/OpenGL procedural animation system under the guidance of Ken Perlin.

Stony Brook University, Long Island, NY   Fall 2007- Spring 2008

Research Assistant, Dr. Nancy Franklin

- Developed a virtual environment to observe the effects of interruption on people who work in high stress environments.

Technical Skills

Programming Languages: C#, C++, Java, Javascript, Python

Platforms: Windows, OSX, Unity (HTML5/Standalone/iOS)

Teaching Experience

Northeastern University, Boston, MA   Fall 2012

Human-Computer Interactions - Teaching Assistant

Stony Brook University, Long Island, NY   Fall 2007- Spring 2008

Introduction to Multimedia Systems, Advance Multimedia Techniques – Teaching Assistant

Professional Activities

Reviewing for Journals and Conferences

- CHI: ACM SIGCHI Conference on Human Factors in Computer Systems   2013 – 2017
- IVA: Intelligent Virtual Agents Conference   2012,2014 - 2017

Workshop Host & Organizer

- IVA: 2014 – Affective Agents Workshop

Awards

- Northeastern University – RISE (Research , Innovation and Scholarship Expo) 2011 Winner in Graduate Student Research Computer and Information Sciences - 2011
- Winner of the "3rd Annual Stony Brook Game Programming Competition" – 2006

Publications

1. *An Affectively Aware Virtual Therapist for Depression Counseling*
   Ring, L., Bickmore, T., Pedrelli, P.
   ACM SIGCHI - Workshop on Computing and Mental Health, 2016
2. *Real-time Tailoring of Depression Counseling by Conversational Agent*
   Ring, L., Pedrelli, P., Bickmore, T.
   Partners Connected Health Symposium, 2016
3. *Increasing Engagement with Virtual Agents Using Automatic Camera Motion*
   Ring, L., Utami, D., Olafsson, S., Bickmore, T.
   Intelligent Virtual Agents (IVA), 2016
4. *Thinking Outside the Box: Co-Planning Scientific Presentations with Virtual Agents*
   Trinh, H., Bickmore, T., Edge, D., **Ring, L.**
   Intelligent Virtual Agents (IVA), 2016
5. *A Smartphone-based Virtual Agent for Atrial Fibrillation Education and Counseling*
   Kimani, K., Bickmore, T., Trinh, H., **Ring, L.**, Paasche-Orlow, M., Magnani, J.
   Intelligent Virtual Agents (IVA), 2016
6. *DynamicDuo: Co-presenting with Virtual Agents*
   Trinh, H., **Ring, L.**, Bickmore, T.
   ACM SIGCHI, 2015
7. *A Robotic Companion for Social Support of Isolated Older Adults.*
   Sidner, CL., Rich, C., Shayganfar, M., Bickmore T., **Ring, L.**, Zhang, Z.
   HRI (Extended Abstracts), 2015
8. *Social Support Agents for Older Adults: Longitudinal Affective Computing in the Home*
   Ring, L., Shi, L., Totzke, K., Bickmore, T.
   Journal on Multimodal User Interfaces, 2015
9. *Robotic and Virtual Companions for Isolated Older Adults*
   Sidner, C., Rich, C., Shayganfar, M., Behrooz, M., Bickmore, T., **Ring, L.**, Zhang, Z.
   AAAI Fall Symposium Series, 2014
10. *The Right Agent for the Job?*
    Ring, L., Utami, D., Bickmore, T.
    Intelligent Virtual Agents, 2014
11. *Addressing Loneliness and Isolation in Older Adults: Proactive Affective Agents Provide Better Support*
    Ring, L., Barry, B., Totzke, K., Bickmore, T.

Affective Computing and Intelligent Interaction (ACII), 2013

12. *An Always-on Companion for Isolated Older Adults*
    Sidner, C., Bickmore, T., Rich, C., Barry, B., **Ring, L.**, Behrooz, M., Shayganfar, M.
    ACM SIGdial, 2013

13. *Reaching Women through Health Information Technology: The Gabby Preconception Care System*
    Gardiner, P., Hempstead, M., **Ring, L.**, Bickmore, T., Yinusa-Nyahkoon, L., Tran, H., Paasche-Orlow, M., Damus, K., Jack, B.
    American Journal of Health Promotion, 2013

14. *Longitudinal Affective Computing*
    Ring, L., Bickmore, T., Schulman, D.
    Intelligent Virtual Agents, 2012

15. *Designing Relational Agents as Long Term Social Companions for Older Adults*
    Vardoulakis, LP., **Ring, L.**, Barry, B., Sidner, CL., Bickmore, T.
    Intelligent Virtual Agents, 2012

16. *Using an Interactive Visual Novel to Promote Patient Empowerment through Engagement*
    Yin, L., **Ring, L.**, Bickmore, T.
    Foundations of Digital Games, 2012

17. *Making it Personal: End-user Authoring of Health Narratives Delivered by Virtual Agents*
    Bickmore, T., **Ring, L.**
    Intelligent Virtual Agents, 2010

18. *Empathic Touch by Relational Agents*
    Bickmore, T., Fernando, R., **Ring, L.**, Schulman, D.
    IEEE Transactions on Affective Computing, 2010