Using Technology to Improve Daily Life

Questions of Interest

Augmented Perception: The brain is a robust processing system capable of adapting to novel information streams. What new types of information can we give it, and what are the best methods for doing so?

Understanding Attention: Human information processing is often limited by attentional constraints. Why can they be so different depending on the stimulus/task? Are they fundamental, or surmountable?

Maladaptive Behaviors: We often know the best course of action, but still don't do it (exercise, procrastination, etc.). How technology help us keep ourselves honest?

Cognitive Biases: Our though processes fail us in consistent and predictable ways. How can we avoid falling for the same traps again and again?

Random Upside-Dow Katakana Time (Adjusted) **Filtering Correlated Filtering** Unsaturated Unsaturated Saturated Saturated Dark Dark Light Light В. Purple Purple Blue Blue

PoC: Devin Burns, Assistant Professor Psychological Science

Background:

PhD in Cognitive Psychology and Cognitive Science from Indiana University, Bloomington



Publications:

Burns, D. M. (2016). Garner Interference is Not Solely Driven by Stimulus Uncertainty. *Psychonomic Bulletin and Review.*

Burns, D. M., Houpt, J. W., & Townsend, J. T. (2013). Functional principal components analysis of workload capacity functions. *Behavioral Research Methods*, *45*, 1048-1057.