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PUBLICATIONS

Peer reviewed Conference Papers, Journal Papers

- **Maior, H.A.**, Wilson, M.L., Sharples, S. *Workload Alerts - Using Physiological Measures of Mental Workload to Provide Feedback during Tasks*. (Under Review) ToCHI2017 Transactions on Computer-Human Interaction.
- Muralidharan, A., **Maior, H.A.**, and Rao, S. *A self-governing and decentralized network of smart objects to share electrical power autonomously*. (Under Review): Springer Open Journal on Infrastructure Complexity.
- Lukanov K., **Maior, H. A.**, and Wilson, M. L. *Using fNIRS in Usability Testing: Understanding the Effect of Web Form Layout on Mental Workload.* In: CHI'16 ACM SIGCHI Conference on Human Factors in Computer Systems, San Jose, California, May 2016.(Acceptance rate 20%)
- **Maior, H. A.** Pike, M., Wilson, M. L., and Sharples, S. *Examining the Reliability of Using fNIRS in Realistic HCI Settings for Spatial and Verbal Tasks.* In: CHI'15 ACM SIGCHI Conference on Human Factors in Computer Systems, Seoul, Korea, April 2015. (Acceptance rate 20%)
- **Maior, H. A.** and Rao, S. (2014.) *A Self-Governing, Decentralized, Extensible Internet of Things To Share Electrical Power Efficiently.* In IEEE CASE 2014 International Conference on Automation Science and Engineering, 18th August 2014. Taipei Taiwan.
- Pike, M., **Maior, H. A.**, Porcheron, M., Sharples, S. and Wilson, M. L. (2014). *Measuring the effect of Think Aloud Protocols on Workload using fNIRS.* In: CHI'14 ACM SIGCHI Conference on Human Factors in Computer Systems, April-May 2014, Toronto. (Acceptance rate 20%)
- **Maior, H. A.**, Pike, M., Wilson, M. L., and Sharples, S. *Continuous detection of workload overload: An fNIRS approach.* In Contemporary Ergonomics and Human Factors 2014: Proceedings of the international conference on Ergonomics & Human Factors 2014, Southampton, UK, April 2014.

Workshop papers, Abstract Papers, Magazine Articles

- Wilson, M.L., Alsuraykh N., **Maior, H.A.**, *Measuring mental workload in IIR user studies with fNIRS*. 2017.
- **Maior, H.A.**, Sharples, S., and Wilson, M.L. *Subjective and Objective Methods to Continuously Monitor Workload*. Neuroergonomics 2016: The brain at work and in everyday life, Paris, France 2016.
- **Maior, H.A.**, and Stringer, P. (2015) *The Values of Games for Health and Well Being*. Interdisciplinary Reflections on Games and Human Values - Workshop , The ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play (CHI PLAY), London, 2015.
- **Maior, H.A.**, Wilson, M.L. and Sharples, S. (2015) *fNIRS in Human Factors*. 2FNIRS Workshop, Toulouse, France April 2015.
- **Maior, H.A.**, Pike, M. *Measuring Work Overload*. The Ergonomist Magazine, May 2014.
- **Maior, H.A.**, Pike, M., Wilson, M.L. and Sharples, S. (2013) *Directly Evaluating the Cognitive Impact of Search User Interfaces: a Two-Pronged Approach with fNIRs*. EuroHCIR 2013 Workshop, Dublin, Ireland, August 2013

RESEARCH INTERESTS

Brain and Physiological data use for Human Computer Interaction

My research lies in the intersection between Human-Computer Interaction (HCI), Brain-Computer Interface (BCI), and Human Factors. I am looking into the integration of non-invasive brain and physiological sensors, such as functional Near Infrared Spectroscopy (fNIRS), in the field of HCI. More specifically, I am interested in

how we can use such devices to sense physiological responses to human cognition and mental workload, and use this continuous, quantitative measure, as an additional channel of information about the user during interaction.

- Papers presented at CHI2016, NeuroErgonomics2016, CHI2015, CHIPLAY2015, CHI2014, IEEE RAS 2014, EHF2014.

- Involved in the Academic Review process for multiple conferences - Associate Chair at ACM-CHI 2017, ACM-CHI 2016, UIST 2016, ACM-CHI 2015, ACM-CHIPLAY 2014, IEEE CASE 2014, IIiX2014.

- Memberships - Association for Computing Machinery (ACM), Chartered Institute of Ergonomics and Human Factors.